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A FRAMEWORK WITH WHICH TO ASSESS FACTORS CONTRIBUTING TO ORGANIZATIONAL DECLINE AND MANAGEMENT APPROACHES USED BY CHIEF EXECUTIVE OFFICERS OF NATIONAL LEAGUE FOR NURSING ACCREDITED GENERIC BACCALAUREATE NURSING PROGRAMS IN THE CONTINENTAL UNITED STATES

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By

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ABSTRACT

A FRAMEWORK WITH WHICH TO ASSESS FACTORS CONTRIBUTING TO ORGANIZATIONAL DECLINE AND MANAGEMENT APPROACHES USED BY CHIEF EXECUTIVE OFFICERS OF NATIONAL LEAGUE FOR NURSING ACCREDITED GENERIC BACCALAUREATE NURSING PROGRAMS IN THE CONTINENTAL UNITED STATES

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The study was designed to identify the current and future types of decline facing generic baccalaureate nursing programs, identify the causes of the decline, develop a predictive tool or assessment guide that could be used to assess a generic baccalaureate nursing program's potential for decline, identify management strategies that were used to address decline, identify the number and types of generic baccalaureate nursing programs that had been proposed for or actually experienced program downsizing or discontinuance, and determine if there were differences in the management strategies used in those programs that had and had not been proposed for or actually experienced program downsizing or discontinuance.

For this descriptive study, a questionnaire was mailed to 345 chief executive officers of National League for Nursing accredited generic baccalaureate nursing programs located in the continental United States. This constituted the entire population of the group under study. The overall response rate was 67 percent with 54 percent of those being usable.

The major type of decline idenitified as present now and projected in the future was erosion which is the gradual reduction of resources

needed to support the current level of activity and output. A smaller but consistent number of respondents identified contraction, which is a sudden reduction of resources, as a current and future type of decline of concern. Both of these types imply that the present output is appropriate only in smaller quantities. A profile of the type of generic baccalaureate nursing program most affected by decline was developed. The main cause of decline was decreased support from the external environment. The administrative climate of the unit was neither supportive nor non-supportive.

Fifty-four programs had been proposed for downsizing over the last five years with forty-eight actually being downsized. Downsizing was most often proposed by the institutional administration due to low enrollments or high program costs. A profile of the institutions proposed for downsizing was developed.

Ten programs were proposed for discontinuance with one actually being discontinued. A profile of that institution was also developed.

There appeared no significant pattern or similarity in management strategies used by those chief executive officers whose programs had and had not been proposed for downsizing or discontinuance.

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CHAPTER I

INTRODUCTION

OVERVIEW

Higher education is in the beginning of a new era -- one of no growth. This is in sharp contrast to the rapid growth that occurred in colleges and universities from the end of World War II to 1969.[1] The 1960s growth was accompanied by extensive college building and expansion. Between 1960 and 1969, 702 new institutions for higher education were established. Of these, 534 were public institutions.[2]

In 1969, inflation began to depreciate available revenues, a recession occurred in the mid-1970s exacerbating an already severe economic picture, taxpayer revolts began in the late 1970s adding to financial problems, enrollments began to decline in the 1970s and federal and state support continued to be erratic and/or decline.[3] The impact of inflation alone is devastating in that it erodes steady states so that just staying even actually requires extracting more resources from the organization's environment and effecting greater internal economies.[4]

At the state level, one important indicator of financial status is the size of the general fund balance. A state with a general fund balance exceeding its spending by 5 percent is considered fiscally prudent. In 1982, seventeen states had balances in excess of 5 percent and five states ended the year with negative balances. In January 1983,

forty-four states were projected to have balances below 5 percent and nineteen were expected to have deficits.[5] Findings such as this mean that many states reduced allocations to higher education (as well as to other areas) and/or made mid-year cutbacks. Higher education's budget reductions ranged from 15 percent in Ohio (FY 83) to 0.6 percent in Oregon (FY 83) and Rhode Island (FY 83).[6]

Higher education is in a period of retrenching from the preceeding decades of unrestrained growth. The severity of the economic picture for higher education is compounded by predictions of significant enrollment declines for most of higher education over the next twenty years.

During the mid-1970s, the rate of growth of the 18-year old population declined and the size of the traditional college-age cohort stabilized.[7] This ended the long post-war period of college age population growth and began the slowing of college enrollments. In the late seventies, the economy was recovering from the 1974-75 recession, thus making more job opportunities available and further reducing the pool of potential college students.[8] Nearly one-third of all educational institutions underwent enrollment decline in the decade of the 1970s.[9]

The Carnegie Commission Report of 1981 predicted that the enrollment decline would not come evenly, but in two slides:

> "Slide I (40%): Fall, 1983, through the academic year starting in Fall, 1988 (followed by a possible rise in 1989 and 1990).
>
> "Slide II (60%): From Fall, 1991, through the academic year starting in Fall, 1997."[10]

The expected low point for undergraduate enrollment will be in 1997.[11] There will be a two-year plateau or slight recovery between the two slides and three years of recovery from 1998-2000.[12]

The decline in enrollment is not affecting all segments of the educational institution or all institutions equally. Some geographic areas such as the Northeast and upper Midwest will experience greater than average declines while the Southwest and several Southeastern states will do better than average, possibly showing modest enrollment increase.[13, 14] Areas of study will also be affected disproportionately. Students are moving from the liberal arts, social sciences, humanities, and education, into vocational, preprofessional and professional programs.[15, 16] Enrollment in the physical sciences, health and life sciences, business and engineering are increasing.[17, 18]

Thus segments of higher education are now facing a dire situation where two of the major resources, traditional age students and money, are declining. In addition, the nature of the fields of study sought are changing. In some cases, there may be changes in the size of various departments or programs; in other cases, there may need to be discontinuance of some programs and/or departments and development of new ones.

Present and future management requires a new orientation - one focusing on no growth, retrenchment and possible decline rather than one focusing on growth and expansion. This new view is difficult to accept since there is a tendency to treat organizational growth as a sign of vitality and success and decline as a sign of senility and failure.[19]

How do these factors relate to nursing? Initially it may seem that nursing is in a favorable position in higher education institutions since the health related areas are ones of potential growth. There are,

however, other factors to consider which make the position of nursing not as secure or enviable as it may first appear.

Nursing education has gained an increasing share of educational benefits over the past thirty years. In 1958, there were only 171 generic baccalaureate nursing education programs in institutions of higher education; in 1982 that number was 402.[20, 21]

The number of students admitted to generic baccalaureate nursing education programs grew annually from 1958-59 through 1977-78 when declines were noted which persisted through 1981-82 (with the exception of 1980-81).[22, 23] In addition to decreases in enrollment, the latest Institute of Medicine study of nursing shows that there is not an overall shortage of nurses, but that the aggregate supply and demand for generalist registered nurses will be in reasonable balance in this decade.[24]

Nursing programs tend to be costly to the educational institution because of the close faculty supervision of students leading to low faculty-to-student ratios. This cost is further raised due to expensive laboratories and scientific equipment.[25] Nursing education's portion of the $35 billion spent annually in higher education in recent years exceeded $350 million.[26]

Chief executive officers of generic baccalaureate nursing programs are in a difficult position. The health related field is one that is currently experiencing growth, the number of generic baccalaureate nursing programs is slowly growing, yet overall enrollments in generic baccalaureate nursing programs are stable to declining. The lack of growth in nursing enrollments may be reflective of the general decline in college enrollments, the increased number of generic baccalaureate

nursing programs, student reaction to a depressed economic job market for nurses, greater educational opportunities open for women or some combination of these factors.

Whatever the reason(s), it would seem that rather than being in an enviable position, generic baccalaureate nursing programs are prime candidates for review by academic administrators looking for ways and places to cut costs. Nursing programs: must limit enrollments due to the low faculty-to-student ratios required and limited clinical placement sites; are predominantly composed of female administrators and faculty; have faculty that are generally lesser academically prepared than their counterparts in other units; and generally receive fewer grants and produce fewer scholarly works than other units on the campus. For these reasons, generic baccalaureate nursing education programs would not seem to be in as secure a position as they initially appear, but rather in a vulnerable position to be reviewed in times of economic stress. As cutbacks and reviews become more commonplace, it behooves chief executive officers of generic baccalaureate nursing programs to position their units favorably so that they will not be the target of severe reductions or discontinuance.

Changes in institutions and environmental conditions relative to no-growth states or decline require different sets of management strategies and actions than those associated with growth. Management in times of no growth or decline means management options are narrowed.[27] Organizations such as institutions of higher education cannot cut back by merely reversing the sequence of activity and resource allocation by which their parts were originally assembled.[28] Thus even established generic baccalaureate nursing education programs may be reviewed and

recommended for reduction in size or discontinuance. The best source of increased resources is improved internal management.[29]

Ways of achieving quality education with fewer resources must be found. This will lead to a re-examination of the mission of the institution, areas in which educational services are offered, elimination of some programs and services, and addition of others.[30] This must also then lead chief executive officers of generic baccalaureate nursing programs to re-examine the current student recruitment and teaching approaches used as well as how to keep the curriculum focus in concert with future health care delivery trends, and at the same time upgrade faculty and become more involved with other campus units.

Unless chief executive officers of generic baccalaureate nursing programs are aware of problem areas and future trends and management options appropriate for periods of decline and carefully implement a planned course of action, their units may be out of step with the environment inside and outside of the academic institution. Such units would then become prime candidates for cutback or discontinuance.

The issues then become: how can the chief executive officers of generic baccalaureate nursing programs determine if their programs are vulnerable and what can they do to improve/maintain a favorable position for their programs within their academic settings? This researcher believes that two approaches to these questions include: (1) incorporating a knowledge of organizational decline into the current and future departmental management strategies used; and (2) incorporating knowledge of the most common criteria used to review academic programs for possible discontinuance into departmental decisions and plans.

This study contains a framework with which to assess the potential for organizational/departmental decline and the most common criteria used to review academic programs for possible discontinuance. These two items serve as the basis from which questions were derived which indicate possible problem areas to assess in developing future plans.

CONCEPTUAL FRAMEWORK

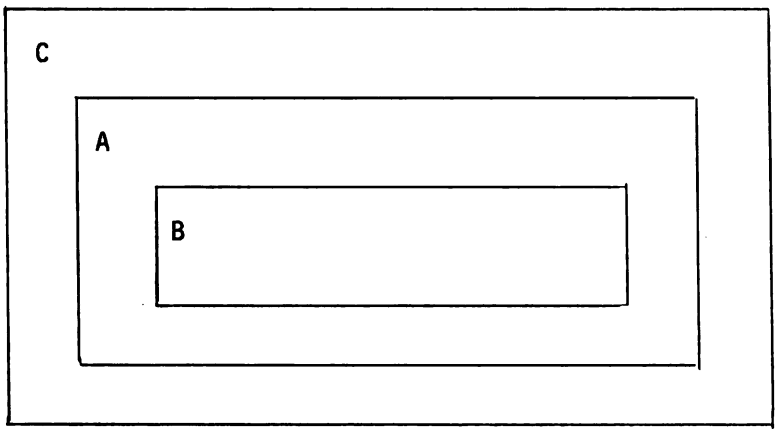
To understand decline, it is necessary to know the relationship between the organization and its environment. The environment may be considered as a mass of niches. Hutchinson describes a niche as that segment of the environment bounded by factors such as availability of resources to support organizational functions, technology, culture, and consumer demand for outputs.[31] As these factors change over time, so does the performance of an organization. Changes may alter either the size or shape of an organization's niche or both.

A change in niche size relates to decreased resource availability or a decreased demand for the organization's output.[32] The output is the same only in lesser quantity. In contrast, a change in niche shape occurs when there is no longer a demand for the current output, thus necessitating an organization to acquire a new output to survive. Graphically, these changes can be seen in Figures 1 and 2.

Changes in niche size and shape can occur suddenly or slowly over a long period of time. Those occurring slowly allow more time for an organization to predict what will occur and how to respond. Sudden change is more disruptive and requires a different response.[33] Cameron and Zammuto have developed a typology of decline based on sudden

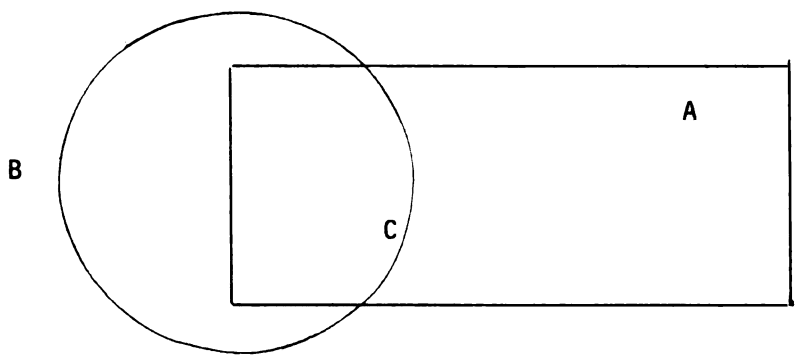
(discontinuance) and slow steady (continuous) change in niche size and shape (Table 1).[34]

Figure 1. Change in Size of Environmental Niche



A. Original niche size
B. Size of niche with decreased resources/demands for output
C. Size of niche with increased resources/demands for output

Figure 2. Change in Shape of Environmental Niche



A. Original niche shape
B. Shape of niche when there is no longer demand for current output
C. Area of overlap in change

Table 1. Typology of Decline

	Continuous Change	Discontinuous Change
Change in niche size	Erosion	Contraction
Change in niche shape	Dissolution	Collapse

From: Cameron, Kim and Zammuto, Raymond. "Matching Managerial Strategies to Conditions of Decline." Human Resource Management. Winter, 1983, p. 364.

When erosion occurs, there is stagnation and steady reduction which produces conflict over the allocation of decreasing resources. If recognized and dealt with early, there is time to consider various alternatives. In contrast, when contraction occurs, there is a sudden decrease in resources available and survival is questioned. There is little time for consideration of options or for participation of staff in decisions. In both instances, there is no real impetus to change the organization's output, only the quantity of the output due to resource limitation.

In contrast, when dissolution occurs, the organization's output becomes progressively less acceptable to the environment and there is pressure to produce a new output. Internally there then becomes conflict over what that new product should be. When collapse occurs, the need for and/or acceptability of the organization's output is rapidly decreased and survival of the organization depends on the rapid identification of a new product/output.

The critical points are whether the change occurs rapidly or slowly and whether the output is still acceptable/useful in the environment. To the extent that management monitors the environment(s) in which the

unit/organization functions, discontinuous change should be able to be avoided and continuous change dealt with in a timely manner.

Using this framework, one could categorize the past, present and future changes relative to nursing education programs (Table 2). This researcher believes that the past and present changes in educational programs were predominately ones in niche size while those changes projected for the future will alter niche shape as well as size. The outcome of this is that the continuation of each type of program will be dependent on alterations in the number and type of the present outputs (or type of graduates). These alternatives may range from restyling programs and curricula to the merger of some diploma nursing education programs with colleges or universities. This merged program produces a new output (graduate) for the diploma program and possibly for the educational institution, while in many instances carrying on the name of the diploma program.

Cameron and Zammuto have further developed their typology of decline to include management tactics and strategies that are appropriate for each type of decline based on their identification of the source of conflict present and the manager-subordinate relations (Table 3).

The specific management tactics included in the model are proactive, reactive, enactive and experimental. Proactive tactics anticipate environmental changes and are implemented vigorously. Enactive tactics reflect the implementation of new activities and management behaviors. Reactive tactics are not initiated until the decline occurs and respond to various elements of it. Experimental tactics are random responses

Table 2. Types of Decline in Various Categories of Nursing Education Programs Using Typology of Decline Developed by Cameron and Zammuto

Type of Program	Past/Present Change & Reason	Future Change & Reason
Diploma	Erosion - changes in insurance reimbursement to hospitals. Dissolution - beginning awareness of importance of academic degrees in society.	Erosion - continued changes (decreases) in third party reimbursement to hospitals; increased program cost to student. Dissolution - increased society emphasis on academic degrees; increased movement toward baccalaureate degree as requirement for entry into practice.
Associate Degree	Erosion - decreased funds available to educational institutions.	Erosion - decreased money available to institutions of higher education; inability to make programs cost effective in timely manner. Dissolution - increased movement toward baccalaureate degree as requirement for entry into practice; glut of RN's on market not prepared for new health care roles which require more background to work more autonomously.
Baccalaureate	Contraction - decreased money available to institutions of higher education.	Erosion - decreased money available to institutions of higher education; inability to make programs cost effective in timely manner. Dissolution - if educational programs do not change to keep pace with future nursing roles.

Table 3. A Typology of Decline Including Some Human Resource Issues and Managerial Responses to Conditions of Decline

TYPE OF CHANGE IN NICHE CONFIGURATION	Continuous Change	Discontinuous Change
Change in Niche Size	EROSION SOURCE OF CONFLICT Stagnation MANAGER-SUBORDINATE RELATIONS Consultative TACTICS Proactive STRATEGIES Domain Offense	CONTRACTION SOURCE OF CONFLICT Threat MANAGER-SUBORDINATE RELATIONS Autocratic TACTICS Reactive STRATEGIES Domain Defense or Consolidation
Change in Niche Shape	DISSOLUTION SOURCE OF CONFLICT Contention MANAGER-SUBORDINATE RELATIONS Coalitional TACTICS Enactive STRATEGIES Domain Creation	COLLAPSE SOURCE OF CONFLICT Confusion MANAGER-SUBORDINATE RELATIONS Chaotic TACTICS Experimental STRATEGIES Domain Substitution

From: Cameron, Kim and Zammuto, Raymond. "Matching Managerial Strategies to Conditions of Decline." Human Resource Management. Winter, 1983, pp. 364, 367.

undertaken on a trial-and-error basis with no overall alternative in mind.[35]

Domains refer to the population served by technology employed by and services rendered by the organization/unit in decline. These can be collectively called the "primary task" or core domain of the organization/unit.[36] When decline threatens this domain, responses vary from defending the current domain to creating or substituting a new one. Domain offense strategies expand the current domain to create organizational slack. Domain defense protects the core domain while reducing it in size. Domain creation diversifies the present domain. Domain substition replaces the current domain with another.

When these elements are put together and viewed by cell in Table 3, one comprehensive way of viewing different types of decline emerges. When erosion or continuous change in niche size occurs, there is stagnation or lack of growth in the organization. Since this decrease is gradual, there is time to consult on appropriate courses of action and then implement a vigorous plan which includes expanding the current domain. This expansion does not mean producing more in a time when fewer outputs are called for, but identifying new similar outputs or markets which center around the present output. In contrast a sudden decrease in niche size, contraction, means an immediate threat to survival where decisions must be made immediately. This situation calls for centralized decision-making based on information available. To survive, the core domain must be defended while a new plan is developed.

When a change in niche shape occurs slowly, dissolution, there is contention as to what the new focus or output will be. Coalitions form

around each major alternative. The survival of the organization faced with these circumstances is dependent upon diversifying the present domain in a timely but thoughtful manner. When an organization is faced with a sudden need to change its niche shape, collapse, there is confusion and chaos. Lack of advance notice or planning means there are no viable alternatives ready to consider, thus random, short-term decisions are made as to what the new output or domain should be.

Some institutions of higher education that ignored the continuous signs of changes in niche size and shape, such as steady to decreasing enrollments, decreased funding coupled with increased inflation and changes in areas of students' interest, found themselves in the discontinuous areas of Table 3. Decisions made at these times will often require additional decisions to ensure long range viability of the organization. Some of these subsequent decisions may also involve revising or reversing the initial decisions made in the times of crisis.

While this typology is useful in viewing decline relative to changes in niche size and shape and proposing managerial responses to decline, it does not give much assistance in what or how to assess the environment and predict or recognize decline before it occurs or identify factors to address which may alter the course of the decline. A model of organizational decline developed by Levine does provide help in depicting the causes of public organization decline (Table 4). This model is readily applicable to non-public and stable-state organizations as well.

The four-cell typology proposed by Levine divides causes of decline along two dimensions: internal and external to the organization and political or economic/technical in nature.[37] According to Levine

problem depletion is the most common cause of decline and occurs when an organization has short-term involvement in a crisis situation. It also accompanies demographic shifts or occurs when society redefines or terminates a problem.[38] Environmental entropy occurs when the organization's external environment no longer provides support for it at the accustomed levels.[39] This may occur when there is a shift in the market or technology, or result from political actions such as not voting tax increases or supporting tax decreases.[40] Both problem depletion and environmental entropy are not under the control of the organization, but external to it, yet readily affect the organization. Such external factors are often not considered when making programmatic changes.

Table 4. Causes of Organizational Decline

	Internal	External
Political	Political Vulnerability	Problem Depletion
Economic/ Technical	Organizational Atrophy	Environmental Entropy

From: Levine, Charles. "Organizational Decline and Cutback Management." Public Administration Review. July/August, 1978, p. 318.

Those events which occur inside the organization and can be totally or partially controlled by it represent the other set of factors to consider in decline. Political vulnerability occurs when an organization's structure is unable to resist environmental demands to contract.[41] Conditions which predispose to political vulnerability include: organizations which are young and/or small, internal conflict, changes in

and/or weak leadership and lack of leadership experience. Organizational atrophy occurs when internal structures malfunction and do not send appropriate warning signals of existing problems. Causes of this may include: inconsistent or perverse incentives; decentralized authority with vague responsibility; weak leadership; role confusion; lack of appropriate evaluation procedures; stifled dissent and upward communication; rationalization of poor performance; high turnover, suspicion of outsiders; continuous reorganization; and routine adherence to the past.[42]

Using Levine's model, the factors identified throughout the literature as major causes of the current problems in higher education can be categorized (Table 5). The same model can also be used to identify major factors impacting generic baccalaureate nursing programs (Table 6). Viewing the factors impacting higher education and generic baccalaureate nursing programs within this framework does allow for organization of thought and a better opportunity to identify related factors in each category that may have particular significance to any one institution or program. It also provides a comprehensive means of exploring a wider range of factors than may ordinarily have been considered.

This researcher believes that one more set of criteria needs to be considered which will provide an even broader assessment of the potential for decline. These are the criteria identifed in the literature as being used to review academic programs for possible discontinuance (Table 7).[43-57] While some of these criteria are the same as or similar to those in Table 5, their addition to the assessment list will insure a comprehensive review of a program. It is possible to incorporate these criteria into Levine's framework (Table 8) and then to

combine the items from Tables 5, 6 and 8 into one tool for the chief executive officers of generic baccalaureate nursing programs to use to assess the potential for decline in their programs (Table 9).

Table 5. Factors Contributing to Higher Education's Current Problems

	INTERNAL	EXTERNAL
Political	Political Vulnerability Increased numbers of colleges/universities in state. More colleges/universities of smaller size. Increased conflict between administration, faculty, and students. Decreased retention of students.	Problem Depletion End of mandatory draft into military. Decrease in ex-service persons returning to colleges/universities. Questionable value of college degree to earning power.
Economic/ Technical	Organizational Atrophy Growth management strategies applied in times of cutback. Decreased new faculty hired. Reliance on tenure versus evaluation of performance. High decentralization of units leading to lack of concensus across units on major decisions.	Environmental Entropy Decreased supply of college-age students (18-22 years). Declining city-state incomes in many places. Tax cuts being passed or tax increases being defeated. Changing career demands requiring more technical/ vocational knowledge/ skills.

Adapted From: Levine, Charles. "Organizational Decline and Cutback Management." Public Administration Review. July/August, 1978, p. 318.

Table 6. Factors Contributing to Generic Baccalaureate Nursing Programs Potential Problems

	INTERNAL	EXTERNAL
Political	Political Vulnerability Small numbers of students enrolled. Young age of many generic baccalaureate nursing programs. High cost/graduate.	Problem Depletion Decreased hospital inpatient cennsus leading to decreased demand for RN's in hospitals. Overall equating of demand with supply of "first level generalists registered nurses."
Economic/ Technical	Organizational Atrophy Adherence to "traditional" faculty-student teaching modes. Adherence to low faculty-student ratios. Rationalization of placement/ promotion of nurse faculty in academic setting without their having educational credentials equivalent to other campus faculty. Decreased involvement with or input from other campus units/outside agencies. Decreased attention to new health care trends relative to curriculum changes.	Environmental Entropy More career opportunities open for women. Decreased earning power of RN over some other professions open to women. Clinical agencies limiting students or instituting fees for student placement. Similarity of most/all programs in state preparing generic graduate nurse. Steady or decreased numbers of students entering generic baccalaureate nursing programs. Changing health care technology requiring type of RN different than one being prepared.

Adapted From: Levine, Charles. "Organizational Decline and Cutback Management." Public Administration Review. July/August 1978, p. 318.

Table 7. Criteria Used to Review and Identify Academic Programs for Possible Discontinuance

Number of graduates from program in each of last 5 years
Number of students enrolled
Class Size
Cost of courses integral to program
Cost per program graduate or credit hour
Faculty workload
Program quality (faculty quality, national ranking)
Total number of graduates of all other similar programs in state/region/nation (uniqueness of program)
Future trends in society relative to program graduates
Projected student interest/demand over next five years
Appropriateness of program to institutional mission
Connectedness of program to rest of institution

Table 8. Criteria Used to Review and Identify Academic Program for Possible Discontinuance Incorporated into Levine's Model for Assessing Causes of Organizational Decline

	INTERNAL	EXTERNAL
Political	Political Vulnerability Number of graduates from program each of last five years. Number of students enrolled. Class size. Cost of courses integral to program. Cost of program/graduate. Connectedness of program to rest of institution. Appropriateness of program to institution mission.	Problem Depletion
Economic/ Technical	Organizational Atrophy Faculty workload. Program quality.	Environmental Entropy Total number of graduates from all other similar programs in state/region/ nation. Future trends in society relative to program graduates. Projected student interest demand.

Adapted From: Levine, Charles. "Organizational Decline and Cutback Management." Public Administration Review. July/August, 1978, p. 318.

Table 9. Criteria Used to Identify Academic Programs for Possible Discontinuance Combined with Factors Leading to Organizational Decline Reflecting those Areas of Specific Concern to Institutions of Higher Education and Generic Baccalaureate Nursing Programs

	INTERNAL	EXTERNAL
	Political Vulnerability	Problem Depletion
Political	Age of unit/organization. Size of unit/organization. Internal conflict. Weak leadership. Number of students enrolled. Number of graduates of program in each of last five years. Attrition rate. Amount of involvement in broad campus activity/ committees. Cost/graduate or SCH. Relationship of program to institution mission. Class size Cost of courses. Connectedness of program to rest of institution.	Non-mandatory military service. Decrease in ex-service persons returning to higher education. Questionable value of college degree to earning power. Decreased hospital inpatient census leading to decreased need for nursing staff in hospitals. Redefinition of financing of health care by federal government. No more shortage of first level generalist RN's. More career opportunities open to women. Decreased earning power of RN over some other professions open to women.

Table 9. Continued

	INTERNAL	EXTERNAL
	Organizational Atrophy	Environmental Entropy
Economic/ Technical	Routine adherence to the past in face of technological change. Stifled dissent and upward communication. Rationalization of poor performance. High turnover. No or inappropriate evaluation procedures. Adherence to low faculty-student ratios. Rationalization of placement/promotion of nurse faculty in academic setting without their having educational credentials equivalent to other campus faculty. Decreased attention to new nursing trends relative to curriculum. Faculty Workload. Program quality.	Changing health care technology requiring new type of RN from that now being prepared. Fewer 18-24 year olds available to enroll in college and/or nursing programs. Increased tax cuts or decreased tax increases leading to less money for educational institutions. Clinical agencies limiting students or instituting fees for student placement. Increased emphasis on ambulatory care and wellness over acute and inpatient care. Difference/similarity versus cost and number of all programs in state preparing generic graduate nurses. Total number of graduates from all other similar programs in state/region/nation versus need. Changing general student interests/demand.

The information gained from assessing a generic baccalaureate nursing program using the factors and framework identified in Table 9 could distinguish whether the respondent considered all four spheres contained in the model when making future plans. Actions taken to address the items listed in Table 9 could be categorized according to the framework in the Cameron and Zammuto model (Table 3). This would provide information as to the predominate types of action taken (ie: reactive, proactive, enactive or experimental) and how these actions related to the domain (ie: offense, defense, creative, substitution). The information obtained would also indicate if the present and future courses of action being taken by respondents was in the direction of changes in niche size or shape thus enabling one to project the future direction of some aspects of generic baccalaureate nursing education programs.

As the environment continues to change in a rapid manner and the resources available continue to diminish, it is increasingly necessary to frequently and accurately reassess the present status and forecast the future. Since the current and immediate future of many institutions of higher education is tied to no growth or decline management, what better framework to use when assessing and forecasting than one based on an understanding of decline? It is such a framework that is developed and used in this study.

STATEMENT OF PROBLEM

Significance

As we face 20 years of enrollment problems in institutions of higher education and a current fiscal dilemma in many states which may negatively impact higher education funding, it is clear that changes

in the higher education system will and must occur. For generic baccalaureate nursing programs to survive this period, proactive planning and actions will be needed based on firm and broad data. If a framework or model for obtaining data and responding to it is available, generic baccalaureate nursing programs should not only survive these next twenty years, but become even stronger and more secure.

Problem Statements

A number of aspects of the effects of decline in higher education on generic baccalaureate nursing programs will be described in this study. Primary among the major problems to explore are:

1. To determine if a significant number of chief executive officers of generic baccalaureate nursing programs identify their programs as being in or having the potential to experience decline.

2. To determine the type of decline chief executive officers identify as currently affecting their generic baccalaureate nursing programs.

3. To determine the type of decline chief executive officers identify as potentially affecting their generic baccalaureate nursing programs within the coming five years.

4. To determine whether chief executive officers of generic baccalaureate nursing programs assess a significant number of environmental factors outside of the larger academic institution when making future plans and developing management approaches.

5. To determine whether chief executive officers of generic baccalaureate nursing programs assess a significant number of environmental factors within the larger academic institution when making future plans and developing management approaches.

6. To determine which of a given number and type of strategies are most used by chief executive officers in generic baccalaureate nursing programs in the administration of their units.

7. To determine the number of generic baccalaureate nursing programs that have been proposed for or actually experienced downsizing or discontinuance.

8. To determine if there are differences in the scores of internal and external environmental factors assessed by chief executive officers in generic baccalaureate nursing programs that are and are not being proposed for or actually experiencing downsizing or discontinuance.

9. To determine if there are differences in the management tactics and strategies used by chief executive officers in generic baccalaureate nursing programs that are and are not being proposed for or actually experiencing downsizing or discontinuance.

Areas of Focus in the Study

There are three major areas of focus of this study: (1) current problems facing higher education and contributing to its decline in some areas; (2) past and present trends in nursing education; and (3) causes and management of decline. Within each of these major areas several selected sub-areas will be developed.

In the section on higher education the conditions that contributed to the current problems will be explored. The section will also contain specific information on enrollments, changing areas of student interest, and the changing college student. In addition, information will be presented regarding the past management strategies used to deal with decline with particular emphasis on program downsizing and discontinuance.

The nursing section contains information about the past and present trends in nursing education and provides background on how each type of nursing education program evolved. Information presented will also focus on enrollment trends, faculty preparation, teaching approaches and societal factors affecting nursing.

In the section on decline, several models from which to view the causes and management of decline in general as well as the specific application of the causes and management of decline in higher education

will be presented. A comparison will then be made as to how decline in institutions of higher education has been handled versus the management modes recommended.

STATEMENT OF PURPOSE

This study will be an initial assessment of chief executive officers of National League for Nursing (NLN) accredited generic baccalaureate nursing education programs in the continental United States regarding their assessment of their programs and the management approach used viewed from several frameworks of organizational decline. The information gained will be of immediate and long range use to chief executive officers of generic baccalaureate nursing programs as they develop future plans for their units.

First, the study will provide current information to baccalaureate nursing program chief executive officers about organizational decline, factors that lead to it, and management approaches that can be used when decline is experienced or expected.

Second, the study will contain a framework that can be used to assess academic units/institutions for potential decline and assist chief executive officers to develop strategic plans based on current and projected changes in their external and internal environments.

Third, the study will provide information to chief executive officers of generic baccalaureate nursing programs as to the most common criteria used to review academic programs for possible downsizing or discontinuance.

Upon completion of this study, one should know the opinions of the chief executive officers of generic baccalaureate nursing programs as

to the prevalence of and potential for decline in their programs as well as the present management tactics used by them to address this decline. This information should also serve as a base and guide for future planning and management of generic baccalaureate nursing programs.

DEFINITION OF TERMS

Chief Executive Officer of a Generic Baccalaureate Nursing Program - The chief academic officer (irrespective of title) in a generic baccalaureate nursing program.

Criteria - Standards by which judgments can be made.

Decline - A cutback in the size of an organization's work force, profits, budget, clients, etc. A general climate or orientation of decrease.[58]

Domain Creation - Causing to come into existence the territory over which dominion is exercised.[59]

Domain Defense - Shielding from attack the territory over which dominion is exercised.[60]

Domain Offense - Attacking the territory over which dominion is exercised.[61]

Domain Substitution - Putting new territory in the place of present territory over which dominion is exercised.[62]

Enactive - Tending or having efficacy to carry out in action or establish.[63]

Environmental Entropy - A measure of the uncertainty of our external surroundings or circumstances.[64]

Experimental - Designation of or pertaining to that which is learned by experience.[65]

Generic Baccalaureate Nursing Program - Any unit in a four-year college or university which grants a baccalaureate degree in nursing to non-registered nurse students who enter the program.

Institution of Higher Education - A four-year college or university, either public or private.

NLN (National League for Nursing) - National organization of nurses and non-nurses which is the official accrediting agency for all types of nursing programs in the United States.

Niche Shape - Outward form, configuration, contour specially adapted to its occupant.[66]

Niche Size - Measurement or extent or any position specially adapted to its occupant.[67]

Organizational Atrophy - The lack of growth or development of individuals systematically united for some end or work.[68]

Organizational Decline - Decreases in resources available (ie: money, students) to organizations over a period of four or more consecutive years.

Political Vulnerability - Assailability of public policy or administration of government or unit.[69]

Proactive - Combines pro- forward; to or toward front from a behind position and active- abounding in action; lively; quick; brisk; therefore, defined as forward in action.[70]

Problem Depletion - reduction or lessening of a perplexing question demanding settlement.[71]

Program Discontinuance - Elimination of certain degrees or programs within departments; or closing of entire departments or units.[72]

Program Downsizing - Reduction in size of a unit either by decreasing enrollment, faculty, or deleting one segment of a unit but not the entire unit.

Reactive - Tending to react or resulting from reaction; responsive to a stimuli.[73]

Stable State Organizations - Institutions showing some growth, some decline, and/or no change in available resources and output over a period of four or more consecutive years.

LIMITATIONS AND DELIMITATIONS

Limitations

The study is limited to those National League for Nursing accredited generic baccalaureate nursing program chief executive officers who choose to return the mailed questionnaire. The questionnaire is a newly developed tool, thus has limitations as to its reliability and validity. Due to interfering events such as college/university administrative requests for budget reductions, program cutbacks and long-range plans regarding enrollments and costs and endogenous changes associated with increasing literature on and discussion of organizational decline, increasing unit costs and decreasing college enrollments, baccalaureate nursing program chief executive officers may acquire a heretofore absent knowledge of some information which may mask and/or overlap knowledge and/or use of actual criteria proposed in this study. Some baccalaureate nursing program chief executive officers may also feel compelled to indicate that they are knowledgeable of and using the criteria to guide their actions when in fact they may not be using them.

Delimitations

The study is delimited to the chief executive officers of National League for Nursing accredited generic baccalaureate nursing programs in the continental United States (as indicated by the most recent NLN publication) at the time the study takes place.[74]

DESIGN

This will be a descriptive study using a mailed questionnaire to gather information. A census of the population of chief executive officers of National League for Nursing accredited generic baccalaureate nursing education programs in the continental United States will be taken. The National League for Nursing accredited programs will be identifed in the most recent annual National League for Nursing publication listing these programs.[75]

A descriptive study was selected because the phenomenon of managing decline in academic institutions and in generic baccalaureate nursing programs is relatively new. Before hypotheses can be generated as to more or less successful courses of action to pursue, detailed factual information describing existing phenomena must first be collected. Current problems and practices must be identified across groups with similar problems and situations. Once this information is known, then recommendations can be made as to appropriate courses of action to take based on current practices and problems.

The total population was chosen to study rather than a sample for several reasons:

1. The total population is small consisting of only 345 National League for Nursing accredited generic baccalaureate nursing programs;

2. In a sample, it would be difficult to insure adequate representation of these combined variables: various sized institutions and nursing programs, each National League for Nursing geographic region, public and private institutions, institutions and programs of various ages.

3. The issue is of a sufficiently critical nature that all chief executive officers of generic baccalaureate nursing programs need to provide input.

Questions contained in the questionnaire were developed to reflect each item contained in each section of Table 9 and to gather more specific information about program downsizing/discontinuance and some demographic data. The breakdown of questions into various categories is shown in Tables 10, 11 and 12. Responses to each question do not include all management options, but options of all management tactics and strategies are included in each section, two through five, of the questionnaire (Questions 3-77). Responses to questions in Table 10 were weighed so that an overall score could be determined as well as a score for each cell in the table.

Table 10. Breakdown of Questions in Questionnaire Addressing Decline, Program Downsizing, Program Discontinuance and Personal Data of Responding Chief Executive Officers

Area	Questions*
Decline	1, 2
Program Downsizing	78 - 87
Program Discontinuance	88 - 91
Personal Data	92 - 96

*See Appendix B for specific questions.

Table 11. Breakdown of Questions in Questionnaire According to Causes of Organizational Decline*

	INTERNAL	EXTERNAL
Political	Political Vulnerability 3, 4, 5, 6, 7, 8, 9, 11 12, 14, 15, 17, 18, 20, 21, 22, 24, 25, 26, 27, 29, 30	Problem Depletion 32, 33, 34, 35, 36, 37, 38, 39, 40, 41
Economic/ Technical	Organizational Atrophy 57, 58, 59, 60, 61, 63 64, 66, 67, 69, 70, 71, 72, 74, 75, 76	Environmental Entropy 43, 44, 45, 46, 47, 50, 51, 52, 53, 54, 55, 56

*See Appendix B for specific questions.

Table 12. Breakdown of Questions in Questionnaire According to Management Tactics and Strategies*

	Continuous Change	Discontinuous Change
CHANGE IN NICHE SIZE	Proactive/ Domain Offense 13-2, 16-4, 19-4, 28-2 31-2, 42-3, 48-2, 49-2 62-4, 68-3, 77-2	Reactive/ Domain Defense 10-1,2; 13-1, 16-1, 19-1, 23-1, 28-1, 31-1, 42-1, 48-1, 49-1, 62-1,3; 65-1, 68-1,4; 73-1,2; 77-1
CHANGE IN NICHE SHAPE	Enactive/ Domain Creation 13-3, 16-3, 19-3, 23-2, 28-3, 31-3, 42-4, 48-3, 49-3, 62-2, 65-2,3; 68-2, 73-3	Experimental/ Domain Substitution 10,3, 13-4, 16-2, 19-2, 23-3, 42-2, 48-4, 49-4, 65-4, 73-4, 77-3

*See Appendix B for specific questions

While a formal hypothesis will not be generated, several sub-problems can be identified to study which are not part of the major problem statement. These sub-problem statements identify situations needing inquiry and discussion and seek to determine if and how several variables are related. The sub-problems are of a more limited nature than the major study problems and have no theoretical base. The information obtained in the study will, however, answer the questions posed in these sub-problems and provide added information and insights as to the extent and location of decline in generic baccalaureate nursing education programs.

Sub-problems that can be answered from the data collected include the following:

1. Do generic baccalaureate nursing programs located in private educational institutions experience more decline than those located in public educational institutions?

2. Are generic baccalaureate nursing programs in private educational institutions being identified more often for downsizing and discontinuance than those in public educational institutions?

3. Are there any specific geographic regions of the continental United States in which generic baccalaureate nursing programs are experiencing more decline, downsizing or discontinuance?

The questionnaire will be pilot-tested on thirty-one chief executive officers from non-National League for Nursing accredited generic baccalaureate nursing programs listed in the latest National League for Nursing official publication of approved nursing programs.[76] The questionnaire and procedures for its administration will be submitted to the Michigan State University Committee on Research Involving Human Subjects for their approval. Revisions will be made as needed based on the input of both of the above groups.

Questionniare responses are to be treated confidentially but are not anonymous. Each questionnaire will be assigned a code number to allow follow-up via a second mailing of a letter and questionnaire within three weeks of the mail date noted in the first letter. A stamped, self-addressed envelope will be included for return of the questionnaire with both mailings.

The data will be analyzed as follows:

1. Frequency count of generic baccalaureate nursing programs identified as now being affected by or having the potential to be affected by decline within the next five years.

2. Frequency count of type of decline that chief executive officers now see affecting their generic baccalaureate nursing programs.

3. Frequency count of type of decline that chief executive officers see potentially affecting their generic baccalaureate nursing programs within the next five years.

4. Mean score of responses by cell in Levine's typology of causes of organizational decline to determine which cells are most and least attended to.

5. Frequency count by type of management tactic and strategy used to determine which approaches are most and least used.

6. Frequency count and description of generic baccalaureate nursing programs that have been proposed for and/or actually experienced downsizing and/or discontinuance.

7. Mean scores of internal and external factors assessed by chief executive officers of generic baccalaureate nursing programs that have been proposed for or experienced downsizing and/or discontinuance compared to those mean scores of chief executive officers in generic baccalaureate nursing programs that have not been proposed for or experienced downsizing or discontinuance.

8. Identification of management strategies and tactics used by chief executive officers in generic baccalaureate nursing programs that have been proposed for or actually experienced downsizing and/or discontinuance compared to those generic baccalaureate nursing programs that have not been proposed for or actually experienced downsizing or discontinuance.

9. Frequency count of generic baccalaureate nursing programs in public versus private institutions that have been proposed for and/or actually experienced downsizing and/or program discontinuance compared to those that have not been proposed for or experienced downsizing or discontinuance.

10. Cross-tabulation of items to determine if there are any specific geographic areas of the continental United States in which greater proportions of generic baccalaureate nursing programs are experiencing decline, downsizing or discontinuance.

11. Frequency count for each item in questionnaire.

12. Factor analysis of items in Table 11.

ASSUMPTIONS

This study is based on several underlying assumptions about societal, fiscal and educational trends as well as some nursing education trends. These assumptions include:

1. The supply of traditional college age students will not markedly increase before the year 2000.

2. The fiscal situation of institutions of higher education will not markedly improve until and unless specific state and/or institutional action is taken to reduce current and future costs.

3. There will be no refutation of current nursing studies which show that there is no shortage of generalist registered nurses in the United States.

4. Generic baccalaureate nursing programs in institutions of higher education will be in increasingly vulnerable positions for review and possible downsizing/discontinuance due to limited enrollments and high costs.

OVERVIEW OF SUBSEQUENT CHAPTERS

In Chapter Two, pertinent literature in several major areas will be reviewed. These areas are: societal and educational conditions giving rise to considering educational institutions from a perspective of decline as well as the need for considering program downsizing and

discontinuance; the establishment of generic nursing education programs in institutions of higher education; current trends in nursing education programs in institutions of higher education; causes of organizational decline; and management options and approaches to use in times of organizational decline.

Chapter Three will include identification of the population and a description of the survey design and measures that will be used to analyze the data. The pilot study will also be described.

The data analysis and a description of the findings will be covered in Chapter Four. Trends will be shown as to knowledge and use of environmental assessments and various aspects of organizational decline in the administrative approach of the chief executive officers of generic baccalaureate nursing programs.

In Chapter Five, a summary of the major findings with conclusions and implications will be presented. The findings will be specifically related to generic baccalaureate nursing education.

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CHAPTER II

REVIEW OF LITERATURE

INTRODUCTION

The focus of this study is on the potential for decline in generic baccalaureate nursing programs located in institutions of higher education. Decline as used in this study does not mean that any one unit or institution is on the verge of closing, rather that it is no longer in a growth or possibly even a stable-state phase.

The potential for decline in generic baccalaureate nursing programs exists for a number of reasons. I have chosen to divide these reasons into three major categories: (1) those problems facing many institutions of higher education which they in turn pass on to some extent to all of their institutional subunits; (2) those problems faced by the profession of nursing in general and generic baccalaureate nursing education in particular; and (3) the causes and management of decline and how this is addressed by both the administrators of institutions of higher education and administrators of generic baccalaureate nursing programs.

The literature reviewed will be divided into these same three major categories. The first segment will focus on the problems faced by institutions of higher education and how these have contributed to the potential for decline. Specific areas to be addressed include financing; enrollments; changes in student composition and areas of study; changes in

faculty; the decreasing diversity within the higher education system; and finally, how administrators in higher education have chosen to deal with these problems. The latter segment includes information on retrenchment, program downsizing and program discontinuance.

The second area of literature reviewed will trace the establishment of nursing programs in institutions of higher education and identify current issues and problems in generic baccalaureate nursing education.

The third major area of literature reviewed addresses organizational decline. This segment will identify types and causes of organizational decline, how to assess factors leading to decline and strategies as to how to manage decline within an organization.

PROBLEMS FACING HIGHER EDUCATION

Overview

To understand the current difficulties faced by institutions of higher education, it is necessary to describe the issues and trends in higher education over the past twenty years, as well as general societal happenings during that time.

Higher education had slow growth from 1636 to 1870.[1] Rapid growth was present from 1870 to 1970 with fast acceleration from the end of World War II through the 1960s.[2] The National Center for Education Statistics indicates that between 1960 and 1969, 702 new institutions of higher education were established; of this number, 534 were public institutions.[3] In 1968 the Carnegie Commission on Higher Education report indicated that of the six million full-time equivalent students enrolled in institutions of higher education, over one-half entered between 1958 and 1967.[4]

Public confidence in higher education and its institutions was due to the nation's scientific achievements during World War II. The G.I. Bill was partially responsible for making higher education available to more persons. Colleges and universities were seen as "cultivators of higher culture and trainers of manpower and leadership for the productive pursuits of the nation."[5] General prosperity was present in the country after World War II and the public supported the development and expansion of higher education. There was a national commitment to expand access to higher education, a growing belief that the nation's welfare depended on higher education, and an increase of service functions that higher education performed in areas such as agriculture, industry, and the professions.[6] Increasing forces were advocating that higher education be accessible to all qualified persons regardless of family income, sex, ethnic origin, religion or handicap. Enrollments soared and billions of federal, state, and private dollars went to higher education.[7]

This growth was not even in all parts of higher education. The public sector grew more rapidly than the private sector; two-year colleges grew more in numbers than did four-year ones.[8] The average size of the institution increased and more "non-traditional" students enrolled (such as: part-time, low-income, minority, handicapped, older undergraduate, and graduate students).[9] The academic ability of students, as measured by scholastic aptitude tests, declined and the secondary school preparation of students entering college decreased.[10]

During this growth period, new curricula were rapidly being added and old ones expanded. More vocational programs were added to community colleges and to a lesser extent to comprehensive four-year institutions.[11] Among entering full-time college freshmen, three-fourths indicated they

were considering vocational majors. At the baccalaureate level alone this mix was 61 percent vocational and 39 percent non-vocational.[12]

Faculty were also changing with their focus, becoming more specialized and technical. They tended to focus more on research and scholarship within their specialty and to teach that specialized content more than focus on the broad cultivation of students as persons.[13]

By 1969, the positive picture of higher education had changed. The student activism, dissent and disruption of the decade of the 1960s peaked on campuses. The murder of Martin Luther King, Jr. in 1968 set off demonstrations of black students to improve their position. The Vietnam War was increasingly unpopular and the presence of military training programs on campuses as well as university-related defense research was viewed negatively. Students began protesting their lack of input in campus governance matters. The Watergate Scandal caused young and old alike to call for increased accountability to the public as to how all programs were run.[14] Federal resources declined as a proportion of educational expenditures, income from gifts and endorsements declined due to economic instability; and public monies went primarily to community colleges or programs in health sciences and medicine.[15] At the same time, higher education was impacted by the 1971 ratification of the 26th Amendment to the Constitution which lowered the voting age, thus increasing the impact of younger voters on education-related issues.[16] The end of the compulsary military draft in 1973 eliminated student exemptions to military service, thereby decreasing the artificially high demand for higher education which this had previously caused.[17]

Since 1969-70, the system of American higher education changed in other ways: institutions became larger and less personal; academic

schedules were changed so students had less contact with faculty; more students from disadvantaged backgrounds were admitted and institutions were not able to deal effectively with them as well as the traditional students; the proportion of part-time and non-residential students increased and they could not benefit from all facilities and services designated for full-time residential students; the increased vocational interests of students combined with job market demands led to weakening the liberal component of higher education and the lowering of academic standards. The latter was not intentional, but due to benign neglect over the years associated with vastly increased numbers and diversity of students coupled with decreased financial resources.[18]

In the 1970s, inflation continued and a recession occurred. Just as the recession ended, taxpayer revolts began and state governments were forced to reduce spending. This meant smaller appropriations for public higher education and dashed the hopes of private colleges to gain new or expanded state support.[19]

At this same time, enrollments began to decline, thus compounding the financial difficulties as less revenue from tuition was obtained. The decline in enrollment at this point was due primarily to the available students being spread over more institutions rather than there being fewer students available. From 1970-78, enrollments increased 2.7 million full time equivalent students (a 46 percent increase). However, these students were spread over 3,100 institutions, many of which were not built or operating at full capacity in 1969.[20] The larger number of students also reflects many who were over age twenty-two and attending school only part-time and others who enrolled but did not complete work toward a degree.

Changes in institutional autonomy were also taking place in the post World War II years. Many states chose to deal with the increased size and complexity of the higher education system by forming statewide coordinating and/or governing bodies to exercise some control over the public institutions. Thus there was a beginning loss of some degree of the past autonomy enjoyed by many institutions of higher education.

Another factor decreasing institutional autonomy was the organized student protests of the late 1960s, the result of which was increased student participation in institutional policy making. At the same time, students were becoming more important in their role of financing institutions of higher education. This financing came about directly from tuition and indirectly through states allocating money through formula funding based on enrollments and through the federal government giving financial aid directly to students rather than the institution. Thus an institution had to attract and retain students to maintain its financial sustenance. In this way, the students gained power in deciding curriculum, standards and resource allocations, all decisions once made by institutional leaders and the faculty.[21]

In this overview a general background of major issues and trends in higher education over the the past thirty to forty years, as well as several special areas which need more detailed attention have been identified. These include enrollment trends; changes in students and their impact on higher education; changes in faculty; financing of higher education; and the decreasing diversity in higher education.

Financing of Higher Education

The fiscal condition of institutions of higher education relates directly to the fiscal conditions of the state within which each

institution is located. Thus it is necessary to understand the general financial condition of the states to see how this impacts higher education.

From the end of World War II to 1970, the United States economy was strong. Higher education was enjoying a growth period as well as ample funding from the states, the federal government and private sources.

The overall fiscal condition of most states reached their lowest levels in forty years as the 1983 legislative session began. The fiscal condition of a state is reflected by the size of its general fund balance. If that balance exceeds its spending by 5 percent, the state is generally considered fiscally prudent. In 1982, seventeen states had balances in excess of 5 percent, twenty-eight fell below the 5 percent excess and five states had negative balances. In January 1983, forty-four states were projected to have balances below the 5 percent excess and nineteen states were expected to face deficits.[22]

Twenty-three states reduced their 1982 budgets through across-the-board cuts of up to five percent with the areas of elementary and secondary education being cut in particular. Some states made short-term adjustments in revenue collections, five states raised their general sales taxes, and four states increased their income taxes. Seventeen states speeded up tax collections, thus producing a one-time windfall; eighteen states deferred some expenditures until future years; sixteen states resorted to interfund transfers; some states borrowed in the short-term credit market; and some states exhausted previously built-up surplus funds.[23]

The causes of these fiscal problems related modestly to a decrease in federal funds allocated to states, a generally weak economy, and

increased state spending. State spending increased more rapidly than the economy between 1940 and 1975.[24] In the late 1970s, states also began to reduce taxes through increased tax exemptions, income tax indexing, property tax relief and rate reductions. Between 1978 and 1982, state taxes decreased from 7.0 percent to 6.5 percent of personal income.[25] The 1983 efforts to lower state expenditures repeated many of the 1982 actions and included reducing the number of state employees and limiting salary increases. Some states were also forced to make mid-year adjustments.[26]

The 1983 fiscal year percentage of budget reductions to higher education ranged from 15 percent in Ohio to 0.6 percent in Rhode Island. In nine states, the percent of reduction for higher education exceeded the overall state budget reduction; in twenty-six states, it was the same, and in eleven states higher education reductions were less than the overall state reductions. Compared to budget cuts required for elementary and secondary education, higher education received a greater reduction in thirty-seven states, an equal reduction in twelve states, and a smaller reduction in three states.[27]

The timing of the budget reductions determines, to a great extent, how those reductions are made. Early adjustments allow for selective reductions, while mid to late year adjustments are generally across-the-board. Typical actions taken to meet mid-year reductions include leaving positions vacant, delaying capital construction, delaying facility maintenance and renovations, curtailing library services, and restricting and reducing travel. Other lesser used measures include tuition increases, decreasing support services and increasing student-faculty

ratios. The ultimate reductions include offering fewer courses, larger class sizes and program elimination.[28]

While the states were having financial difficulties and reducing allocations to higher education, the costs of higher education had increased and continued to rise. The end of the growth era in the 1970s meant an end to the institution autonomously allocating slack funds as it wished since there were no more slack funds. Funding formulas began to hurt rather than help as enrollments decreased; real overhead costs increased; new faculty positions were unavailable to adjust the size of those departments with increased enrollments.[29]

Added costs imposed on higher education between 1969-80 through social pressure and governmental mandate included: occupational safety and health regulations; provisions for handicapped; increasingly stringent building codes; increased fringe benefits; collective bargaining; affirmative action; the Buckley Amendment; women's athletics; environmental requirements; and demands for increasing statistical reports.[30]

The cost per student unit (in constant dollars) declined slowly between 1929-30 and 1949-50; rose rapidly from 1949-50 to 1969-70, and dropped again in the 1970s. The period of rapid rise, often called the "golden years" of American higher education reflected the nation's need to both expand and improve higher education. Staff compensation rose during these years and there was an increase in the private sector.[31]

In addition to the general factors that have been identified as increasing the costs to all institutions of higher education, those institutions with one or more health professional programs had even higher costs. A 1982 study conducted through the National Center for Higher Education Management Systems reaffirmed previous information by

McCoy and Halstead that institutions of higher education with no first professional program in the health sciences have lower instructional expenditures per full-time equivalent student than those institutions with one or more such programs (See Table 13).[32] While these data relate only to the medical, dental, optometry, and veterinary professions, there is no reason to believe that institutions of higher education with generic baccalaureate nursing programs as their first or one of their non-medical health professional programs would not also have increased instructional expenditures by some percent above those institutions with no health professional program.

Table 13. 1978 Average Instructional Expenditure per Full-Time Equivalent Student for Higher Education Institutions with and without Health Professional Programs

TYPE OF INSTITUTION	PUBLIC	PRIVATE
Medical School	$13,615	$8,594
Major Research Institution		
With Medical Program	$ 2,713	$4,641
Without Medical Program	$ 2,011	$4,313
Other Doctoral Institution		
With Medical Program	$ 2,448	$3,464
Without Medical Program	$ 1,939	$2,006
Medical program includes MD, DDS, OD and DVM		

From: Smith, John. Impact of Health Programs on Instructional Expenditures in Higher Education. National Center for Higher Education Management Systems, Boulder, CO, 1982, p. 1.

Comparisons of patterns of expenditures of more and less affluent institutions revealed: that more affluent institutions while spending more on everything spend less, on a percentage basis, on direct

instruction and physical plant and more on student financial aid, non-academic staff, and goods and services purchased from outside vendors. When the relationship of affluence to outcomes was studied, it revealed that while the impact of affluence on outcomes was positive, it was very small.[33]

This financial information reveals that as the costs of higher education (faculty salaries, goods and services, numbers and types of programs offered, physical plant) have continued to rise, the monies flowing into higher education from state and federal funds and tuition has decreased. During this same time, inflation continued to rise and added social and regulatory mandates also increased and imposed new additional costs. The end result of the interaction of these factors has been an overall decrease in money available to higher education which has forced cut-backs, reorganization and refocusing so that income and expenses are more equal. Since the institutional expense per full-time equivalent student is greater in educational institutions with health professional programs than in those institutions without these programs, health professional programs would seem to be obvious ones to review in times of budget problems.

Enrollments and Students

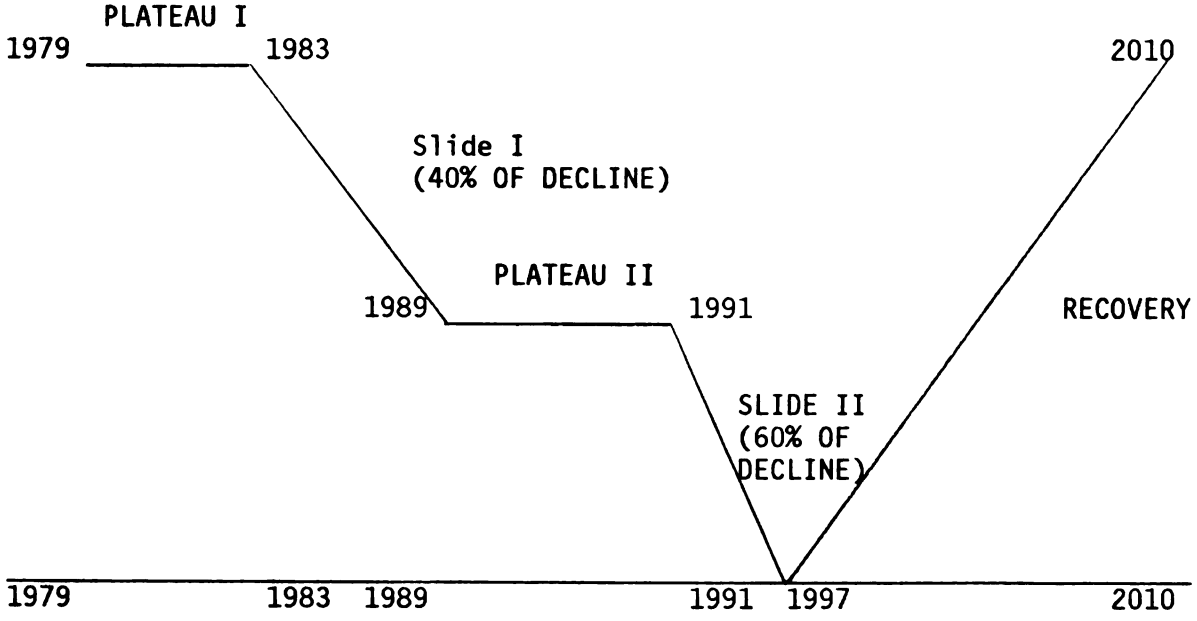
The enrollment in higher education institutions has increased fairly steadily for the past three centuries. Points of significant increases were 1870 following the Civil War and land-grant college movement; 1945 following the passage of the G.I. Bill of Rights; and 1960 with students from the high birth rates following World War II. While projecting enrollments is difficult, the Carnegie Commission in 1980 projected a five to fifteen percent decrease in undergraduate enrollments between

1983 and 2000.[34] The decline would not come evenly, but be divided as follows:

> "Slide 1: From Fall 1983 through the academic year starting in the Fall of 1998 (followed by a possible rise in 1989 and 1990); and then,
>
> Slide II: From the Fall of 1991 through the academic year starting in the Fall of 1997."[35]

Slide I would account for 40 percent of the decrease; Slide II the remaining 60 percent. There would be plateau years for enrollments (1979, 1980, 1981, 1982) and increased enrollment years (1989, 1990, 1998, 1999, 2000). (See Figure 3)

Figure 3. Generalized View of Higher Education Enrollments, 1979 - 2010



From: Three Thousand Futures. San Francisco: Jossey-Bass Publishers, 1981, p. 47.

The numbers of live births is the most significant predictor of the pool of potential college age students (See Table 14). The annual United States rate of live births showED a steady rise from 1946 to the

peak year of 1957. Rates then declined fairly consistently from 1958 through 1976 with the exception of 1969-1971. Projecting ahead eighteen years from the year of birth will provide one with the maximum number of potential college age students in the traditional age range. This number must then be factored by some percent of those persons area who may attend college. The past rule was that 50 percent of the white males and 40 percent of the white females and a steady but lower percent of non-whites would attend college.[36] Thus a simple observation of just the declining birth rate alone should have been enough to predict the decreased enrollments beginning in the late 1970s and continuing through this century.

Table 14. Number of Live Births in the United States 1945-1976 (in millions).

1945 - 2.86	1956 - 4.22	1967 - 3.52
1946 - 3.41	1957 - 4.31	1968 - 3.50
1947 - 3.82	1958 - 4.26	1969 - 3.57
1948 - 3.64	1959 - 4.26	1970 - 3.72
1949 - 3.65	1960 - 4.23	1971 - 3.56
1950 - 3.63	1961 - 4.27	1972 - 3.26
1951 - 3.82	1962 - 4.17	1973 - 3.14
1952 - 3.91	1963 - 4.10	1974 - 3.16
1953 - 3.97	1964 - 4.03	1975 - 3.15
1954 - 4.08	1965 - 3.76	1976 - 3.17
1955 - 4.10	1966 - 3.61	

From: Anderson, Charles (Ed.) Fact Book on Higher Education U.S. Public Health Service. National Center for Health Statistics, Monthly Vital Statistics Report, 18 March 1977, pp. 1, 76.28.

In addition to birth rates, other factors are also considered when projecting college enrollments (See Table 15). Though some factors in Table 15 may tend to offset others, the gains in enrollments will probably not equal or exceed the losses from other factors mentioned.

Approximately 40 percent of all college students are second generation attendees within their families. This group is most likely to attend and remain in college. The other 60 percent of the students attending college are first generation attendees, second-generation attendees in two-year colleges, and masters level vocational students. The continued attendance of this 60 percent is hard to predict and makes a wide margin for error in predicting enrollments.[37]

Another significant impact on enrollment is the dropout rate. The current dropout rate in four-year colleges is 40 percent, with the major reason given as "boredom."[38] Twenty-nine percent of all colleges and universities experienced a decline in retention rates. Of those institutions actually losing enrollments, private institutions rank low retention rates as the number one cause of decreased enrollments while public institutions rate retention decline as the number two factor.[39] Therefore, one way colleges can help to maintain their enrollment is by identifying ways to decrease the dropout rate.

There will be regional variations in the enrollment projections. Table 16 shows the percent of change in eighteen to twenty-four year olds by state and region based on live birth rates per state. The Carnegie Commission predicted that enrollments in the East and Midwest would decline approximately 10 percent while those in the South would increase by 5 percent and those in the West and Southwest would increase by 10 percent or more. A part of the difference in the two projections of regional variations includes the Carnegie Commission's consideration of migration patterns in addition to just live birth rates. Approximately 60 percent of the full-time equivalent enrollments in private colleges is

Table 15. Factors that Affect Higher Education Enrollment Predictions

- Increased numbers of stop-outs and stop-ins.
- Reduced dependence of young people on parental wishes and financial support.
- Higher proportions of adults attending college.
- Higher proportions of part-time students.
- Higher percentages of students in two-year colleges who have more marginal commitments to attendance which shift with circumstances.
- Higher proportions of students at graduate levels, particularly the M.A. level, tied to immediate job prospects which fluctuate.
- Changing inducements to attend college in the form of veterans' benefits, student subsidies, and opportunities in the labor market.
- Changing private rates of return on a college education.
- Changing military recruitment policies.
- The historic shift from assured class to less certain mass attendance.
- The rise and fall of geographic areas.
- Increased cost of attending college.
- Changes in job markets.
- The addition of quality of life objectives of a recruitment and social nature to professional and vocational objectives.
- More non-traditional institutions catering to specialized markets.

From: Three Thousand Futures. San Francisco: Jossey-Bass, 1981, pp. 36-37.

and

"More Than Survival: Prospects for Higher Education in a Period of Uncertainty." Carnegie Council on Policy Studies in Higher Education. San Francisco: Jossey-Bass, 1980, p. 46.

Table 16. Percent Change in the 18-24 Year Old Population by Region and State - 1980-1985

Region and State	Percent Change	Region and State	Percent Change
NORTH ATLANTIC	-3.8	SOUTHERN	-4.6
Connecticut	-5.2	Alabama	-5.6
Delaware	-3.4	Arkansas	-4.8
Maine	-3.7	Florida	2.9
Massachusetts	-3.5	Georgia	-3.5
New Hampshire	-5.0	Kentucky	-6.9
New Jersey	-4.3	Louisiana	-2.8
New York	-4.8	Maryland	-2.9
Pennsylvania	-8.7	Mississippi	-5.5
Rhode Island	-5.4	North Carolina	-4.6
Vermont	-3.6	Oklahoma	-5.8
Washington, D.C.	6.0	South Carolina	-4.5
		Tennessee	-6.7
		Texas	-3.8
		Virginia	-3.6
		West Virginia	-10.3
MIDWEST	-6.4	WESTERN	-2.9
Illinois	-3.9	Arizona	3.0
Indiana	-5.2	California	1.1
Iowa	-7.0	Colorado	-3.3
Kansas	-8.9	Idaho	-6.2
Michigan	-9.2	Montana	-6.1
Minnesota	-5.4	Nevada	-6.0
Missouri	-6.2	New Mexico	3.2
Nebraska	-6.6	Oregon	-8.2
North Dakota	-7.9	Utah	-4.1
Ohio	-7.0	Washington	-3.5
South Dakota	-4.5	Wyoming	-2.2
Wisconsin	-4.9		

From: Anderson, Charles (Ed.). A Fact Book on Higher Education: First Issue/1976, pp. 76.16-76.17.

in states which will lose considerable enrollments while only 40 percent of the public enrollments is in these states.[40]

Concurrent with the level of enrollment changes over the years has been a change in the characteristics of the typical student. In the 1960s there was concern about making higher education available to persons other than white males from higher socioeconomic sectors of society; therefore, colleges opened their doors to women and racial minorities. By October 1979, for the first time in the history of American higher education, women constituted the majority of college enrollments at 50.7 percent.[41] Older persons also began returning to college, some for degrees, others for mental stimulation or information. The "stopout" rate of students who interrupt traditional courses of study with work, leisure or travel, increased from 17 percent of all undergraduates in 1969 to 26 percent in 1976.[42] Table 17 provides a comparison of the undergraduate student characteristics in the years 1960 and 2000. As can be seen, the undergraduate student body is becoming older, increasingly female, attending school more on a part-time basis and not living on the campus.

Table 17. National Undergraduate Student Characteristics 1960 and 2000

CHARACTERISTIC	1960	2000
Women	37%	52%
Minorities	4%	25%
Part-time	30%	45%
Non-Resident on Campus	40%	85%
Over age 22	30%	50%

From: Three Thousand Futures. San Francisco: Jossey-Bass, 1981, p. 54.

There have been other changes noted in the students as well. The ability of students has declined as was reflected in standardized test results (Scholastic Aptitude Test) which showed a drop on the verbal portion from 460 to 429 and on the mathematics portion from 488 to 468 between 1969-70 and 1977-78. To make up for these deficiencies, 85 percent of the American colleges and universities now offer remedial education programs.[43]

Changes in the composition of the student body do not take place over the years without impacting the curriculum and institutional policies in a variety of ways. Prior to the 1960s, the predominate way in which curricular policies in higher education were set was through administrative and faculty decisions. There was little attention given the student market or input because resources were plentiful and expansion was the focus. From the 1960s on, there has been increasing attention given to the student market in the development of curricula and policies.

This change in focus came primarily as more financing went directly to students rather than the institution. At the same time institutional costs increased due to inflation and enrollments stopped increasing. In an enrollment-driven system, such as higher education, in times of expansion money is available and can be used to meet the needs of many vested interest groups (faculty, alumni, administration). However, in periods of contraction, many fixed costs cannot be reduced in proportion to enrollment declines, thus many or severe cuts must be made to remain financially sound and more students must be attracted to provide more funds to maintain the institution. In this way, the student market gains strength in dictating institutional courses of action.[44]

Other changes in the curriculum included less emphasis on the production of new knowledge and the cultural and social development of the learner and more emphasis on a practical and vocational orientation. Vocational courses have invaded the universities as students identify that their goal in attending a college or university is to get a detailed grasp of a special field and obtain training and skills for an occupation. This focus on vocational topics has meant big enrollment increases in business, the health professions, biology, agriculture and other technical fields. Likewise, big enrollment declines have been noted in fields of study including education, the humanities and some social sciences.[45]

The number of hours required to obtain both associate and baccalaureate degrees has dropped slightly. There is a shift away from breadth of study toward specialization as more electives are being added to the major field of study. There is a move away from specific course requirements toward the student selecting from among a more or less specified set of courses.[46]

Students should have options to take study areas of concentration of special interest to them and at the same time increase their potential value to employers. No student should be involuntarily penalized in the job market for studying a subject which is of great personal interest but in no obvious demand by potential employers.[47]

Majors are generally well handled by professional schools and departments, but do have drawbacks such as being too oppressive and taking too much of a student's time; being too narrow and specialized; and leading to neglect of the department developing courses for non-majors.[48]

In summary, the information presented about enrollments has indicated that based on live birth rates alone it was clear that there was

going to be a decline in the numbers of traditional college age students beginning in 1976. This decline, while small initially, would persist every year through the end of the century with a few years where enrollment plateaus might be noted. The enrollment decline was predicted to have an unequal geographic impact with the Northeast and Midwest noticing the more severe declines. In addition to decreased live births, added social, economic and environmental factors were also contributing to decreased college enrollments. Even at a time when enrollments stabilize, it is clear that the level of enrollments would not equal those of the 1960s, thus the key to future institutional survival would mean preparing for decreased enrollments and income.

While enrollments were decreasing, changes were also occurring in the composition of the student body. Those institutions that were monitoring the change noted that the student body was getting older, attending college more on a part-time basis, living off-campus, and increasing in females. Students focused increasingly on vocational courses and programs and the liberal arts curricula noted sharp and steady enrollment declines. The ability of students declined as reflected in standardized tests and to compensate for this, colleges and universities were forced to offer more remedial work.

Faculty

At the same time that changes were taking place in enrollments, students and curriculum, the faculty in institutions of higher education were also changing. A major concern facing colleges and universities today is the high percentage of older faculty with tenure and the small number of newly hired faculty. The last major hiring period of new faculty was from 1960-70 to accommodate the growth in enrollment.[49]

At the peak of academic activity in the 1960s new faculty were added at the rate of 20,000 or more per year. The current level of addition is zero and will likely remain that or less for the rest of this century.[50]

The modal age of tenured faculty in 1980 was 36 to 45 and in the year 2000 will be 56 to 65. There will be far more faculty aged 66 and older than aged 35 and younger in the year 2000. The next large faculty hiring period will be from 2000 to 2010. Potential disadvantages of an older faculty are that they are higher paid; less resilient to adjusting to new fields or changes; and farther removed from the age of the student.[51] On the positive side, an older faculty will be more committed to the institution and adds stability to the governance system. Fewer faculty will tend to move as the problems in higher education worsen and job prospects elsewhere will be limited.

As recently as 1969, tenure ratios were 50 percent. By 1980-81, approximately 75 percent of the faculty members at four-year institutions were tenured.[52, 53] A high percentage of tenured faculty decreases the flexibility of a unit and an institution and makes redeployment of resources more rigid and difficult.[54]

The scholarly focus of faculty is also changing. National surveys of college teachers conducted by the Carnegie Commission between 1969 and 1975 revealed that in 1969 three-quarters of all college and university teachers had not published or edited a book or monograph; by 1975 that percentage was two-thirds. In 1975, one-half of all faculty members who had published some professional writing had not done so within the preceding two years. Faculty expressing a strong positive relationship between publishing and receiving tenure increased from 27 to 36 percent

between 1969 and 1975. During this time, there was also an increase from 15 to 35 percent of the faculty expressing a primary interest in research over teaching.[55]

Though faculty are older and thus more highly paid, salary increases in real dollars have been below those of some other occupational groups. Faculty and staff compensation between 1929-30 and 1949-50 (in constant dollars) increased at a rate of 0.29 percent per year; but from 1969-70 to 1977-79 it decreased at a rate of -0.53 percent per year.[56] The lack of increase in real faculty compensation, cutbacks in resources available, closing of some courses, units or departments, and increased student-faculty ratios have given rise to an increase in faculty collective bargaining. The percentage of faculty unionized institutions of higher education, excluding religious institutions, rose from zero in 1960 to 6.7 percent in 1970 and 21.9 percent in 1979.[57] While this percentage is not large, it does pose another condition with which administrators in higher education must cope.

In summary, as changes have been occurring in enrollments and the composition of the student body, so have they been occurring with the faculty. Faculty now are older, more highly paid than new faculty, potentially less flexible, and farther removed from the age of the student. A very high percentage have tenure, thus ensuring job security even in the face of declining enrollments and resources.

Diversity in Higher Education

The problems faced by higher education could not be viewed comprehensively without looking at their impact on the diversity present in the system. Diversity will be distinguished as to whether it is internal or external. Internal diversity results when an institution tries to fulfill

more than one mission or goal. External diversity relates to the differentiation among colleges and universities.[58] Diversity is prized in American higher education according to Stadtman because it:

"- Recognizes the differences in people

- Increases the range of choices available to learners

- Makes higher education available to virtually everyone despite differences among individuals

- Matches education to the needs, goals, learning styles, speed and abilities of individual students

- Enables institutions to select their own missions and confine their activities to those that are consistent with their location, resources, levels of instruction, and clienteles

- Responds to the pressures of a society that is itself characterized by great complexity and diversity

- Becomes a precondition of college and university freedom and autonomy because the greater the differences are among institutions, the more difficult it is for a central authority to convert them into instruments of indoctrination rather than of education."[59]

Threats to diversity in higher education in America include: closure of some institutions; centralized state or agency coordination; collective bargaining; and increased regulation.[60] The diversity in higher education could also be impaired if certain kinds of institutions were to drastically decrease or go out of existence. These would include: institutions at the front of advanced learning and thought (doctorate granting institutions constituted only about 6 percent of institutions of higher education in 1976); institutions giving special attention to certain types of students (i.e.: single-sex, rural and religious institutions); and small, experimenting and developing institutions.[66]

The critical point in terms of size seems to be an enrollment of 1000. Between 1970 and 1978, 124 of the 129 independent colleges and

universities that closed had enrollemnts of less than 1000 students.[62] The large institution has come to dominate higher education. Most of these large institutions are public and located in the South and West. They are long standing elite institutions that draw the most academically able and financially well-to-do.[63] The largest segment of the public institutions of higher education, by headcount enrollment, in 1977 was sized between 2,500 and 9,999 (40 percent) while for the private institutions it was sized between 500 and 2,499 (50 percent). Public institutions between 10,000 and 20,000 grew from 0 percent to 18.2 percent between 1955 and 1977, while private institutions in the same size range grew from 0 percent to only 1.8 percent.[64]

In the 1970s, 111 new institutions of higher education opened (78 two-year; 24 less selective liberal arts colleges; 9 comprehensive colleges and universities). During this same time, 107 institutions closed; 68 merged and 11 changed from private to public control.[65] Only 15 of these institutions closing were under public control, all of the rest were private. Religious institutions were hardest hit with 48 Catholic schools closing or merging and only three opening; 18 Protestant colleges closed or merged and four opened.[66]

Less vulnerable private institutions include those with: high quality programs; a strong religious orientation; long standing traditions; loyal alumni; distinctive academic programs; special clienteles; and attractive locations. More vulnerable private institutions include those with: a heavy concentration on teacher education; urban comprehensive institutions that are not distinguishable from their counterparts except for higher tuition; small liberal arts colleges with restricted programs; and institutions in rural or depopulating areas.[67]

Value of the private sector in higher education is its independence of governance; diversity; long standing traditions; devotion to liberal learning; attention to individual students; and contribution to cultural life.[68] Private institutions have probably been more attentive to educational values than public institutions. With smaller enrollments, they can provide more personalized education. They also emphasize liberal education more than public institutions.[69]

In 1950, higher education was half public and half private as measured by enrollment; in 1980 it was four-fifths public and one-fifth private nationally, with great variations from state-to-state.[70] One could question whether this percentage of private institutions is sufficient to serve as a check and balance for the public sector as well as to act as a model for the public sector or to serve as competition for it.[71]

Diversity is more likely to be seen now within institutions than between them. Institutions in their entirety now are more alike with fewer having any strong personality, mission or goal.[72] It is doubtful that greater diversity within institutions balances out decreased diversity among them.[73]

In summary, the enrollment and economic problems faced by higher education are unevenly affecting various segments of the system with privately funded institutions feeling the impact more severely than publicly funded ones. This disproportionate impact means that a degree of the diversity present in American higher education is decreasing. In 1980, enrollments in private institutions constituted only 20 percent of all college and university enrollments. This is a 30 percent drop since 1950 and if the decline continues at this rate by 2000, there could be no

more privately funded institutions of higher education. This decrease in the private sector of higher education means that fewer options are and will be open to students who may desire some special focus or attention from higher education that could have been best provided through private institutions.

Summary

What has been revealed in the literature to this point is that the events of the past thirty to forty years have had a profound impact on higher education. The G.I. Bill of Rights following World War II resulted in immediate growth in enrollments in higher education followed by the increased birth rates which insured higher enrollments in the 1960s. The launching of the Soviet space ship Sputnik created fear that America was falling behind the Soviet Union, thus creating a push for more higher education. Increased emphasis on equal access to higher education for women and minorities also favored the expansion of higher education through the 1950s and 1960s.[74]

These factors were tempered by birth rates which steadily decreased after 1957, economic recession, increased inflation, student protests and revolts on college campuses across the country, the end of the compulsary military draft, and the change in student interests from general to vocational education.[75] Thus there was a period of rapid and steady expansion of higher education facilities and offerings in a good economic climate which favored and supported growth. This was followed by a period of declining resources of a significant nature and a changing environment regarding how higher education was viewed and valued.

These changes and declines have led to institutions of higher education now being faced with excess physical capacity; an older, larger and

less resilient faculty; high fixed costs; and few slack resources after years of cutbacks and decreased funding. Enrollments are low and there are student demands for changing areas of study, some of which may not even fit the mission of the colleges and universities receiving them.

As we approached the mid-1980s, resources continued to decline or be scarce, and societal changes such as revolutions in technology, changing demographic patterns, and decreasing productivity were creating new demands on higher education. It is critical to project the long term effects of resource decline and to develop organizational strategies to deal with this and to prevent institutional stagnation.[76] Before projecting future strategies, it is necessary to review the past approaches that have been used to deal with the problems identified to know which ones were successful and which may have contributed to or compounded those problems.

Higher Education's Response to Problems

In 1974, the presidents of American colleges and universities were asked for their expectations of change from 1974-80. Aggregate responses revealed:

1. "Fewer seeing growth in enrollments from 1974-80 than saw it from 1968-74 with fewer also seeing declines;

2. Handling of enrollment declines by attracting adults, off-campus and evening students;

3. Funding problems not dominating the view with increased expectations of securing added funds from alumni, corporations, foundations, and other private sources;

4. No major changes seen as presidents expressed confidence in their institutions to modify curricular offerings, reallocate resources and otherwise plan and manage resources available to them;

5. Little expansion in personnel assigned to recruitment and admissions; and

6. No changes in consolidation of courses, student-faculty ratios; faculty workloads; or use of planning and management techniques."[77]

At the time of the survey in the summer of 1974, inflation was a severe problem, the market value of investment portfolios had declined, some foundations had announced cutback of grants, and state revenues had fallen (three-fourths of the states had allocated less to higher education in 1973 than in the immediately preceding years).[78]

In 1975 the Carnegie Foundation for the Advancement of Teaching in its report More Than Survival stated that because of decline in growth, problems that might have been bypassed must now be solved. Means to solve old and new problems were diminished and conflicts could arise due to financial rigidity, changing tenure rules and tightening employment practices. College administrators then predicted actions and outcomes to include: more centralization of authority; an increased number of students per faculty member; and a decline in the quality of programs, students and to a lesser extent, faculty.[79]

In a Carnegie Council survey of college and university presidents in 1978, 45 percent indicated financing was the major problem by 3:1 over the second concern which was decreasing enrollments. Of those who saw enrollment as the greatest problem, almost twice as many were in private as public institutions.[80] In this same 1978 survey, college and university presidents were asked to identify the most important issues facing American higher education between 1980-2000. The following topics were identified:

1. "Financing
2. Redefining goals of higher education
3. Maintain enrollments
4. Maintain autonomy
5. Strengthen liberal arts
6. Preserve private sector

7. Maintain quality of higher education
8. Strengthen career education
9. Greater public confidence in higher education
10. Continuing education"[81]

The differences between the 1974 and 1978 survey of college presidents are significant. The 1974 survey results may indicate that the presidents either had a lack of insight of current problems, an inability to use predictors to identify future problems, or a strong belief that their ability could avoid the problems predicted. One major factor which may have contributed to their lack of attention to problems then present may have been that until the 1970s the presidents had dealt only with growth. As Boulding wrote in 1975, higher education is now entering an era of slowdown and it is ill equipped to manage decline. Administrative skills that were highly desirable during the preceding thirty years may no longer be needed in the next thirty years. The skills of managing a declining institution are different and greater than those needed for managing a growing institution.[82]

Cyert noted that it is imperative that the univeristy be well managed when it is contracting. This is difficult because the better managers move to expanding organizations and academics resist being managed by expert managers and seek to have academics placed in top manangement positions.[83]

Involvement of all level of personnel within a university that is stagnating or contracting in size is necessary to: maintain excellence, stimulate high motivation from all participants, develop innovative programs, achieve fiscal equilibrium, and continue the viability of the organization.[84] All persons need to readjust their thinking as to what constitutes success. Growth must no longer be the major criterion used to measure success. This will be a difficult barrier to overcome as the

market economy makes growth a measure of success. Growth is also seen as a creative force in society, creating new jobs and opportunity.[85]

In educational institutions facing decline or no growth, fewer opportunities for promotion and new hiring exist. This low probability for advancement means those first-rate persons outside the organization will not be attracted to it and those inside may consider moving to other organizations where they have better opportunities. As this occurs, the quality of education and the reputation of the institution declines and fewer or no top quality students are attracted. As fewer top students provide less faculty stimulation, more faculty will leave and thus a vicious cycle begins which may be repeated until the institution closes.[86]

In these times of no growth and decline, the institutional stance in higher education has changed from one of offense to defense. Emphasis is on contraction rather than expansion, survival rather than excellence. Signs of this increased emphasis on survival include:

- "The lowering of admissions requirements
- The search for nontraditional students, who in the past have been least preferred
- The increased emphasis on retention of students, sometimes regardless of their performance
- The rising level of grades to attract and retain students in courses and departments
- The turn toward vocational and professional subjects following student demand
- The introduction of new fields and courses that are highly popular with students
- The faculty interest in collective bargaining to protect tenure and real income, and sometimes, to resist the impacts of affirmative action

- The effort to find top leadership which is good at cost accounting or at recruitment of students or at fund raising or at all three; to find managers for survival who will balance the books, recruit the students, and raise the funds instead of innovators and planners for a different and hopefully better future."[87]

As these survival actions persist, their impact on the institution is reflected by the following:

- "It is more difficult to start anything new with a non-market orientation, or to preserve the telic reforms of the 1960s

- Supporting personnel, recruiters, admission officers, student financial aid officers, student counselors, become more important

- Top leadership is more cautious, less visible

- Consultation within the campus is more total, the search for consensus more insistent, the avoidance of controversy and of alienation of any important constitutency more avidly sought, the status quo more enshrined

- Internal tensions are exacerbated; departments compete to survive; coalitions form over where the cuts should or should not be made.[88]

Institutions of higher education began experiencing no growth and/or decline in the mid to late seventies and in may institutions this decline or stagnation is continuing well into the 1980s. The change from growth to decline was not abrupt. Signs of changing times and impending decline were present as shown in the 1974 study but not necessarily needed. What were some of the warning signals of institutional distress that could or should have been seen and addressed? Glenny and Bowen have identified thirty indicators of enrollment and financial stress that could alert an institution to an imminent need for changes in policies and activities.[89] Change would be necessary if sufficient numbers of the indicators all pointed in the same direction.

The indicators are divdied into two major groups: those over which the institution has little if any control and those over which the institution has some degree of control (Table 18).

Those signs over which the institution has no control are often not identified or ignored if they are known. While these events may not be able to be controlled by the institution, their identification and consideration in short and long-range planning can greatly reduce their impact as they occur. The identification of these factors means that the external environment will have to be carefully assessed, trends predicted and contingency plans developed even if not implemented.

Those indicators of distress that can be controlled by the institution are more numerous than those that cannot be controlled. From a budget perspective, the higher the proportion of faculty supported by soft money, the greater the potential for instant trouble if those funds decrease. Hiring from within which includes an institution's own graduates may be viewed as either money saving or conservative or both but tends over time to limit institutional capabilites. The rate of dropouts must be correlated with the economy to be meaningful as an economic downturn usually leads to greater retention and increased enrollment.[90] Faculty salaries constituting a disproportionate portion of the budget likely reflects cuts in other personnel and services. If continued, permanent damage may be done to all academic programs due to lack of adequate support.

Once the potential for decline is identified, the decision must be made as to whether one will resist the decline or adapt to it. The resistance approach was common during the 1970s. Typical resistance

Table 18. Warning Signs of Potential Institutional Distress

INDICATORS INSTITUTION CANNOT CONTROL

1. Shifts in the Ethnic Mix of the Institution's Service Area.
2. Shifts in the Socioeconomic Mix of the Institution's Service Area.
3. Federal Subsidies.
4. Changes in Labor Demand in the College Service Area.
5. Live Births and the Demand for Teachers.
6. Source of Students by Geographical Area.
7. Changing Student Profiles.
8. Student Flow from High Schools.
9. Average Student Loads.
10. Uncertainty in Obtaining the Next Budget.

INDICATORS INSTITUTION CAN CONTROL

1. Deteriorating Physical Environment of the Campus.
2. High Proportion of Total Budget Composed of Soft Money.
3. Decreasing Transfer Students from Two-Year Colleges.
4. Lower Admissions Standards.
5. Hiring from Within.
6. Increasing Unit Costs.
7. Increasing or Decreasing Percentages of Part-time Faculty.
8. Increasing Percentage of Faculty Teaching Outside Primary Specialty.
9. Regular Faculty Assigned to Unusual Teaching Hours.
10. Decreasing Rates of Funding for Additional Students.
11. Encouraging Unselective Early Retirement of Faculty/Staff.
12. Increasing Proportion of Faculty with Overloads or Underloads.
13. Decreasing Period Between Closing of Applications and Registration.
14. Dropping Application Rates for Admissions.
15. Increasing or Decreasing Dropout Rates.
16. Overload of Career Counselors.
17. Low Placement of Certain Graduates.
18. Reduction in Supply, Equipment, and Travel Budgets.
19. Faculty Salaries Increasing Disproportionate to Total Budget.
20. Increasing Fees for Support of Selected Services.

From: Glenny, L. and Bowen, F. "Warning Signals of Distress." Challenges of Retrenchment. Mingle, J. (Ed). San Francisco: Jossey-Bass, 1981, pp. 34-46.

approaches used included increasing advertising to secure new markets and expand present ones, decreasing attrition and increasing retention, improving student life and campus climate, tightening standards, and attracting new sources of revenue.[91]

Adaptation involves planning and recognition of the opportunities that accompany the problems. Peterson identifies seven R's of planning that can be used to respond in an adaptive way to decline. These include: redefinition of mission; rethinking of administrative, leadership, and organizational models; reintegration of organizational processes; revitalizing members; reparations; recuperation and repartriations and recommitment.[92] Reintegration is necessary when the effects of resource decline tend to remove organizational slack and central decision-making. The disintegration of associated horizontal and vertical capabilities limit an institution's capacity to innovate and require action.

Reparations are needed when those areas that have previously been depleted are identified as still being vital to the organization. Types of damages that may occur during times of decline include: reducing academic programs which are later deemed to be necessary; deferring maintenance on a long-term basis, or decreasing library acquisitions over a long period of time. Such actions occur as a normal part of difficult periods and are brought about by lack of a well-organized plan for reductions, political pressures, poor forced choice selections, lack of information on which to base decisions or emphasizing traditional values.[93]

Sets of activities similar to those proposed by Peterson to use to respond to decline are also noted by Hall who adds changing the emphasis

of the organization from goals to the environment as survival stimulates people to think ecologically.[94] Cooke adds to the list focusing on the actual clientele with whom you are most successful and gearing programs to them while excluding marginally successful and expensive programs.[95] Brantley, Miller and McAlpine advocate recruiting different student markets to be served while maintaining service to existing groups.[96] Bieschke includes developing or maintaining open communications with faculty, staff, and students as a must in any plan involving cutbacks and retrenchment and developing administrative programs as alternatives to unions.[97] In addition to maintaining open communications with faculty and staff, Mingle and Norris urge gathering substantial information on future enrollments and evaluating existing programs in view of the institutional mission.[98]

Mingle and Norris also advocated readjusting staffing by increasing the number of part-time and fixed-term non-tenured faculty; assigning faculty to teach outside of their own department; consoliding the administrative structure; limiting course offerings in existing programs; and eliminating some academic programs. The personnel actions advocated by Mingle and Norris are not all of a voluntary nature through attrition since attrition decreases as economic times get worse.[99]

Mayhew includes in his list of activities more active recruitment of students and strengthening retention efforts.[100] An increased emphasis on retention is especially important as the majority of all institutions experience a 50 percent rate of attrition. No more than 50 percent of entering freshmen complete baccalaureate degrees and only 30 to 40 percent of entering freshmen graduate with associate degrees.[101]

Given the number and magnitude of problems faced by institutions of higher education and the slow recognition of these problems by some institutional presidents, what actions were actually taken by presidents to address them? The focus of major activity appeared to be on financial management. The short term and immediate response to decreased dollars was across-the-board cuts to all programs in the institution; cutting travel; decreasing spending on phones, equipment, energy costs, and library expenditures; placing hiring freezes on unfilled or newly vacated positions; deferring maintenance; scaling back student services; decreasing ancillary programs; cutting off-campus and non-traditional programs; and increasing faculty and staff loads.[102, 103, 104]

Another approach that received increased use was hiring more temporary and part-time faculty. Such action increased the potential of the institution to respond to more diverse areas of student interest more quickly but more importantly it reduced institutional cost. Part-time and temporary faculty are generally paid lower salaries, receive few, if any, fringe benefits and constitute only a short-term institutional commitment. Attractive as these advantages may seem, there are problems. Part-time and temporary faculty many not always meld with full-time faculty into one unit; they may not be familiar with or supportive of the institutional/program goals or mission; their standards may be different from regular faculty; they may need increased supervision; they may have less job commitment; and they probably do not participate in student advising, research or publication.[105, 106]

Providing an "early retirement" option for selected personnel was another approach used to reduce costs. The intent of this action was to encourage senior and more highly paid staff members to retire early, thus

decreasing direct and indirect personnel costs. There were various criteria that had to be met to qualify for this option at various institutions. A major probelm associated with this approach is that it provides an unpredictable, uneven and uncontrolled exodus of persons which may leave needy units short of staff and overstaffed units still overstaffed. With position control regulations also in effect, it was not always possible to refill a vacant position. Additional problems arose in that as more senior faculty left, so did much of the expertise of various units they served.[107]

Long term use of any of these short term responses to decline makes institutions show wear and tear, may decrease enrollment and increase faculty dissatisfaction.[108, 109] Across-the-board cuts also lead to the potential of decreased quality in all programs.[110] There is little flexibility in many institutional budgets following several years of across-the-board cuts.

The approach of cutting all units across the board was quite popular in public institutions where decision-making groups were all public and the political impact of closing a school or unit was too great.[111] After several years of across-the-board cuts and use of other approaches noted, and with finances not improving, it then became necessary to consider other alternatives to decreasing costs. A major course of action then undertaken was program downsizing and discontinuance.

Program Downsizing/Discontinuance

Historically, there are two major reasons for discontinuing an academic program: decreased academic viability and increased costs.[112] Program discontinuance gained popularity during the eary 1970s when some states began considering the closing of some programs that had

proliferated in numbers during the growth years.[113] It soon took on negative meaning as some programs were discontinued and faculty were relieved of teaching responsibilities.

Program discontinuance had been used previously during the Nineteenth Century when many religious schools opened and the increased competition for students caused lowered enrollments in some institutions and forced programs to be cut. During the Depression (1932-34), financial and enrollment problems caused some institutions to discontinue programs.[114] Thus the use of program discontinuance, rather than a positive ongoing check and balance within the higher education system, seems to be a course of action resorted to only in times of financial and/or enrollment decline. This could explain, in part, the negative connotations it carries.

Though a course of action resorted to in times of crisis, program discontinuance will not save money in the short run (and possibly not in the long run), and it may reduce future budget commitments only if tenured faculty are released. If faculty are reassigned or if positions are vacated only as faculty voluntarily leave, personnel savings are minimal. Any savings gained through program discontinuance must also be weighed against the loss of student fees from the program(s) deleted; the time and energy of faculty and administration in making decisions; and possible legal fees if any suits are initiated.[115] In addition, the impact of the discontinuance on various other campus offices (housing, special services, financial aids) must be considered. Another area of concern is courses in other departments which are taken by majors in the program being discontinued as well as any courses offered by the discontinued program to non-majors.[116] Program discontinuance cannot take

place immediately as some provisions must be made to allow students currently enrolled in the program to complete it.[117]

The decision to discontinue or downsize a program should come only after extensive review of programs based on specific criteria. A review of the literature on program discontinuance revealed a number of criteria used to evalute programs for possible discontinuance. Table 19 contains a list of the criteria most often used by institutions to review a program for possible discontinuance and Table 20 contains additional criteria less frequently mentioned.[118-134]

The criteria for programs undergoing review may be either quantitative or qualitative in nature, or more often a combination of both. Quantitative criteria include such items as costs, enrollments, size of classes, total production of graduates and faculty workload while qualitative criteria examine areas such as the quality of instruction, quality of faculty and the national ranking of the program. The farther from the target unit that the review is done, the more the review criteria tends to be quantitative in nature.[135]

The establishment of criteria for the review is only one of four major factors to consider when contemplating program downsizing or discontinuance. A second area of focus is when the review should be done. Under the most favorable conditions, reviews are conducted periodically on all units over a given number of years. Under the worst conditions, reviews are prompted by political, economic, employment or enrollment pressures.[136, 137] Program closure decisions are very time-consuming and are best not done in the midst of severe financial problems unless there is a well established process for the review.[138]

Table 19. Criteria Most Often Used by Institutions of Higher Education to Review Academic Programs for Possible Discontinuance

Number of graduates from program in each of last five years.
Number of students enrolled.
Class size.
Cost of courses integral to program.
Cost per program graduate or credit hour.
Faculty workload.
Program quality (faculty quality, national ranking).
Total number of graduates of all other similar programs in state/region/nation (uniqueness of program).
Future trends in society relative to program graduates.
Projected student interest/demand/enrollment over next five years.
Appropriateness of program to institutional mission.
Connectedness of program to rest of institution.

Table 20. Criteria Less Frequently Used by Institutions of Higher Education to Review Academic Programs for Possible Discontinuance

Change in student interest over last four years.
Vitality of program (use of resources, educational methods, service activities, goals, clients served).
Effectiveness of resources used.
Value of program to society.
Extent to which program serves other units/majors in institution.
Potential impact on public/external relations.
Cost-revenue relationships.
Job placement of graduates.
Quality of students attracted.
Does area attract continuing financial support.
Attrition.

A third question to be considered that is very closely tied to when the review will be done is what programs should be reviewed. The typical approaches have been to review logical clusters (institution or system wide) or those setting off "trip wires" by falling above or below pre-established quantitative limits in such areas as productivity, trends in student credit hours generated, enrollment, or costs.[139, 140]

A fourth question that needs to be addressed when planning a program review is who will conduct the review. Reviews may be conducted by peers from within or outside of the institution. Costs may be a deciding factor in this decision as an outside review is more costly than a review conducted by institutional members. Most reviews are conducted involving only a liaison person from the program under review.[141, 142] In some states, the state agency responsible for the control or coordination of higher education will conduct the review and has the authority for formulating review procedures and making discontinuance decisions.[143] Data collected by the Carnegie Commission in 1979-80 regarding the level of program discontinuance revealed that of forty-six state agencies responsible for recommending, initiating or deciding program discontinuance, thirty-two state boards actually were involved in the review activity.[144]

Given these guidelines regarding program review for possible discontinuance, what kinds of programs does the literature show actually have been selected for review? Those programs more often selected are ones that: (1) are considered in isolation from the institutional mission; (2) have records that show client contacts but do not equate these to student credit hours; or (3) are called to administrative attention due to some crisis such as questionable leadership, a decline in program quality, loss of external funds, or requests for added money.[145, 146]

Following reviews, what kind of programs were actually discontinued? The EXXON study of programs discontinued in major research universities showed those programs to be ones that were: (1) outside the commonly accepted definition of the university (professional training

and/or service programs not contribuitng to the main research function); (2) not meeting the institutional mission; 3) receiving few outside grants; (4) showing decreasing student numbers; (5) in physical and/or intellectual isolation; (6) considered not vital to the continued functioning of other departments.[147, 148] Pseudo-discontinuance may occur when the institutional inventory of degree programs is reduced without a concurrent reduction in curriculum, staffing or the institutional budget.

Davis and Dougherty have identified alternatives to program discontinuance. These include: (1) merging of the affected program with another viable unit; (2) transferring of the affected program to another unit; (3) developing a joint program with another institution; (4) transferring of the affected program to another institution; (5) changing the affected program to decrease costs and/or increase quality and retaining it.[149]

Suggestions offered as to how to avoid program discontinuance include: setting program priorities on a clear understanding of the institutional mission; maintaining quality; keeping faculty size consistent with enrollment; developing faculty and curricular relations with other departments; doing long range departmental planning; maintaining strong unit level leadership; avoiding self-imposed financial difficulty; and building flexibility into the unit.[150, 151]

Summary

Thus it can be seen that a wide array of strategies have been used in dealing with the decline in higher education with varying degrees of success. These have ranged from across-the-board cuts to all units to program discontinuance. The issue may not be one of whether the strategies were good or bad, but rather were the managers prepared to manage the

decline. Present educational administrators have grown up in a period of rapid growth in higher education and presumably have been chosen because they were capable of dealing with growth. The skills and strategies associated with managing growth are different from those associated with managing decline. Values and idealogy of our culture emphasize growth and expansion as indicators of effectiveness. Dealing with stability and decline are foreign to the mainstream of management thought and practice.

Without a background in the management of decline, administrators, when faced with decline, define the conditions as ones of resource allocation problems or efficiency and respond conservatively rather than innovatively. They basically continue to do less of the same.[152] This conservative orientation may be deadly for colleges and universities. This approach is not only contrary as to how to respond to decline, but in the private sector has often led to ineffective performance and organizational death.

A study of forty institutions of higher education in 1981 revealed that those respondents classified as declining institutions:

> " . . . had significantly more standarized structures, relied on past conservative practices, perceived the external environment as lean in resources, and had perceived low organizational effectiveness in the core academic areas and low morale. Declining institutions did show high effectiveness in handling internal organizational concerns. Goals related to academic domain effectiveness were not highly valued. Administrators emphasized finances, budgeting and fund raising. Little emphasis was given to interaction with external constituencies through public relations and public service."[153]

Administrators in institutions classified as growing emphasized the opposite characteristics. The behavior of administrators in declining institutions may perpetuate decline by eliminating the potential for expanding resources by not interacting with the environment proactively

and relying on past and possibly outdated standardized procedures. Some reasons projected as to why administrators in higher education may use the conservative approach and focus on efficiency have been identified (Table 21).

Table 21. Reasons Why Administrators in Higher Education Focus on Conservatism and Efficiency

1. It is easier to define and measure efficiency than effectiveness.
2. Self-protective behaviors are commonly used and most always conservative.
3. New problems are interpreted through old frameworks and past successful alternatives applied.
4. Consensus is virtually impossible to reach among loosely coupled systems each protecting their own vested interests, therefore, conservative and satisficing strategies are used to lesson conflict.
5. Administrators left to manage declining organizations tend to "play it safe."
6. Innovation is viewed by some as a cause for decline; therefore, in times of decline, past innovations are deleted and future innovations are not pursued.

From: Cameron, K. "Responses to Fiscal Stress: Contrasting Higher Education and the Private Sector." In Responses to Fiscal Stress in Higher Education, Wilson R. (Ed.). Center for Study of Higher Education, College of Education, University of Arizona, Tucson, AZ, 1982, p. 54.

Since it is necessary to be more accountable in times of decline than in times of growth, administrators tend to select courses of action that are more easily measured and have proven successful in the past. The problem is that past and present conditions are vastly different. Growth in higher education occurred despite actions taken by administrations. These non-aggressive, non-risky past strategies are generally

the first ones chosen in times of decline. Conditions of decline are often viewed as caused by environmental factors outside the control of the administrator, therefore, conservative actions seem appropriate. There is no need to risk any of one's self if the factors causing the problem are out of one's control. Such courses of action may also be the only ones known to the administrator who may be someone left to manage the decline after the innovative leader has left for a job in a growing organization.

In summarizing the response of higher education to the conditions of decline faced in the 1970s and 1980s, it would seem that more conservative strategies that had been used with success in times of growth were applied first. These approaches proved less than successful in coping with the conditions of decline which have continued for almost ten years. These conservative, internal reallocation, efficiency-oriented strategies eventually gave way to approaches involving program downsizing and discontinuance as the economic and enrollment problems persisted. The use of management strategies not designed for decline was done with all good intentions by administrators who were not prepared to deal with decline, had experienced only growth situtations, and who were striving to protect the institutions as well as themselves. The decline in higher education and the strategies used to deal with it have brought higher education to its present state.

Given this background, the researcher now wishes to explore what has happened to generic baccalaureate nursing education during this same difficult time. Following that, the literature on organizational decline will be reviewed so that one may identify courses of action that could

have been and can be taken to manage the decline in higher education and in generic baccalaureate nursing programs.

NURSING EDUCATION

Given a description of the issues and problems facing higher education now and in the immediate future, it becomes necessary to relate these to generic baccalaureate nursing education. To assist in this process, the literature review presented in this section will include a brief history of the development of nursing education, current and proposed trends in nursing, current information about enrollments and admissions into generic baccalaureate nursing programs, the need for nurses in the continental United States and the type of nurse needed to deliver care in the present and future American health care delivery system.

Hospital-Based Nursing Education Progams

Modern nursing as a forerunner of what we know today, began in 1633 in Paris when the Sisters of Charity was formed by Saint Vincent de Paul. One of the vows taken by the sisters was to care for the sick. The first American community of these sisters began in Maryland in 1809. Several other Catholic orders of sisters founded in Europe also established orders in the United States in 1843 and 1844. In 1836, one of the Protestant deaconess orders which had existed near the time of Christ was revived in Germany by a pastor who needed nurses for his new infirmary.

In Europe, care of some ill persons was provided primarily by sisters or deaconesses through religious orders. While the scientific training of these women was non-existent, they were sincere in their efforts, kind, dedicated and observed principles of cleanliness. The

hospitals in Europe in the seventeenth and eighteenth centuries were not clean or sanitary and provided care primarily to the ill indigent. In this same time period in the United States, care of the ill existed in alms houses or pesthouses and hospitals, as known today, did not exist until 1751.[154] The religious attendants in hospitals in the United States had been replaced by lay people who came from the criminal class, aged inmates, or women who could not obtain employment elsewhere. No training was given, no supervision was provided and even this pitiful attention was not available at night. These people, though unprepared in any way, were the nurses of the times.

The establishment of the first formal nursing education program with any scientific base was in England in 1857 by Florence Nightengale. The training program was begun at St. Thomas Hospital in London. That program was opoosed by the vast majority of all physicians in London who indicated that since nurses occupied much the same position as housemaids, little formal education beyond poultice-making and cleanliness was needed.[155]

In the United States, physicians intermittently gave lectures to nurses and midwives at state hospitals in several large Eastern cities. While this did not constitute a formal nursing program, it was the best available in that time. In 1798, Dr. Valentine Seaman organized the first formal nursing program in a New York hospital. The program consisted of 24 nursing lectures. The focus of this program and several others that started soon after was on midwifery rather than general nursing. In 1849, the Massachusetts Legislature appointed a state sanitary commission to propose plans for promoting public health. The commission recommended that "institutions be formed to educate and

qualify females to be nurses of the sick."[156] In response, in 1850 for the three years it operated a hospital, the New England Female Medical College offered women the opportunity to attend medical lectures.

In 1857, Dr. Marie Zakrzewska opened the New York Infirmary for Women and Children and initiated a six month training program for nurses. Another six month nurse training program was started in 1861 in Philadelpha by Dr. Ann Preston. In 1862, Dr. Zakrzewska left the New York Infirmary and founded the New England Hospital for Women and Children in Boston and established a six month nursing training program there.[157] There were, however, few women willing to give the six months required of any nurse training program.

During the 1860s, the number of trained nurses were few with the majority of the care given in hospitals by uneducated and unfit women (also called nurses). In 1872, Dr. Horatio Storer wrote that ". . . there must, sooner or later, be established, in connection with all large hospitals, scholarships, as it were, for nurses . . ."[158]

In 1872, Dr. Susan Dimock who began medical training in Dr. Zakrzewska's school and completed her studies in Europe, rejoined Dr. Zakrzewska in Boston and together they developed and expanded a twelve month nursing training program. Dr. Dimock had visited Florence Nightengale while abroad and gained information from her about the essentials of a legitimate training school for nurses. This program was the first American nurse training school offering a graded course in scientific nursing. Students worked from 5:30 a.m. to 9:00 p.m. in the hospital and slept in rooms near the ward so they would be available for emergencies. In return, they received twelve lectures. The first

graduate, Linda Richards, completed her studies in 1873. This training program for nurses, improved as it was over all others, was extremely short and was not located in a general hospital.[159]

In 1873, three more nurse training programs opened with the one attached to Bellevue Hospital in New York being modeled after Florence Nightengale's St. Thomas Hospital program in London. The course of training at the Bellevue program was two years in length, one year of study and one year of supervised experience. Other programs based on the Nightengale model opened in 1873 in Connecticut and Boston. As these schools produced more nurses, they began to migrate to areas of the country without nursing programs. By 1890, the first program in the Western United States was started in Portland, Oregon, and by 1898 there were nearly 200 nurse training programs in the United States. By 1917, this number had increased to over 700 nursing programs. All nursing training programs were attached to hospitals and were used by the hospital as a major means of staffing the wards with qualified persons at little cost.

World War I increased the need for nurses and a number of different groups and efforts were initiated to attract more women into nursing. One of these efforts was a summer school started at Vassar College in 1918 where college graduates wishing to become nurses would enter Vassar's intensive preparatory course in nursing and then affiliate with one of the 33 cooperating hospital nursing training programs. The intent was to give the foundation science courses in college and then have the student complete the nursing instruction at a hospital school. The total time interval for this combined program would not exceed the regular hospital program length of time. Through this effort, it was also hoped

that a better quality of nurse could be prepared. Soon after the Vassar program began, five other universities set up similar joint programs aimed at high school students. The standard of teaching at the universities exceeded that in the nursing school and many nurse educators believed that even after the war, it would be advantageous to have pre-nursing work conducted at or by recognized colleges or universities.[160]

In 1920 following World War I, there were 1,755 hospital-based nursing programs, many of which could not attract sufficient numbers of applicants. The increased recruitment of nurses for the war had depleted many hospital staffs. Many nurses returning from the war chose to marry and leave nursing, thus adding to the shortage. The image of nursing was still one of being inferior to male dominated occupations, thus adding to recruitment problems. Despite these problems, more hospitals started nurse training programs as the main means of providing staffing for the wards and keeping the hospital open. By 1923, the number of nurse training programs had increased to 1,964 and by 1927 to 2,286. The enrollments in these programs rose from 54,953 in 1920 to 77,768 in 1927.[161] Many of those graduating from these programs were poorly trained and highly exploited by the hospitals running the nursing programs.

In 1918, some nursing educators stated that there was no hope for nursing education to advance until educational programs were removed from hospitals and administered separately. In 1912, Adelaide Nutting approached the Carnegie Foundation to fund a study of nursing education following its funding of Flexner's Study of Medical Education. The Foundation turned down the nursing request, but did fund subsequent studies in dental, legal and teacher education. Ms. Nutting then approached the Rockefeller Foundation and in 1919 the Foundation formed

and funded a Committee for the Study of Nursing Education. The Rockefeller Study entitled Nursing and Nursing Education in the United States was written by Josephine Goldmark and published in 1923. The 500 page study concluded, among other things, that it was desirable to have schools of nursing established in universities. It also noted that while the present hospital training schools had made remarkable progress, the instruction in the average school was too casual and uncorrelated, and that the educational needs, health and strength of students was often sacrificed to meet hospital needs. The report also advocated a "basic undergraduate training for all nurses which would lead to a nursing diploma."[162]

University-Based Nursing Education Programs

By the early 1920s, only sixteen colleges and universities had incorporated nursing education programs. These were generally organized as four or five year programs leading to a nursing diploma and a bachelor of science degree. The usual organization was for the student to spend two years at the university and complete preliminary work, then spend two years training in the university hospital followed by one year clinical work and study in some specialized area. By 1926, there were twenty-five such programs in the United States, but the total enrollment was only 368 as most women resisted this length of study.[163]

Following the Goldmark report, the Rockefeller Foundation awarded a five year grant to Yale University to establish a model university-based nursing education program. The program was to consolidate nursing theory and practice, eliminate non-nursing assignments, and emphasize preventive aspects. The Yale program opened in 1924 as a separate university department, with its own budget and dean. Hospital affiliation was arranged.

The course of study was twenty-eight months in length. The program was highly successful and in 1929, admission standards were elevated to require a bachelor's degree. The program then became thirty months in length and offered a Master of Nursing degree. There were 128 women students. In 1929, the Rockefeller Foundation awarded the school an endowment of $1 million, thus ensuring its permanency.[164]

Widespread duplication of the Yale program was not forthcoming. By 1925, only three other universities had initiated similar programs. Opposition to college-based nursing progams came from physicians who argued that college educated nurses were over-trained and provided too costly services. Hospital diploma training programs also opposed the college programs and stated that nursing education meant only technical skills and manual dexterity. Diploma educators believed that intelligence and a theory base were not only unnecessary, but may handicap prospective nurses.[165]

Since collegiate-based nursing education was not expanding and many of the hospital-based nursing programs were of poor quality, another study group was formed shortly after the Goldmark Report was published. This group, the Committe on the Grading of Nursing Schools, contained representatives from three major national nursing organizations, as well as representatives from several medical groups, the Hospital Association and the Public Health Association. In 1928, the first of its reports entitled, Nurses, Patients, and Pocketbooks, was published. It addressed nurse supply and demand and concluded that there was an over-supply of nurses and the numbers were rapidly increasing. It also identified poor pay for nurses and low educational standards in many programs.[166]

The second report from the Committe on Grading of Nursing Schools published in 1934 was entitled Nursing Schools Today and Tomorrow. In this report, present educational weaknesses were described and recommendations for improvement were made. The report identified lack of financial support as a major deterrent to placing nursing education on a higher level. Faculty in diploma programs were also noted as having low educational standards (42 percent were not high school graduates).[167]

A study of hospital schools of nursing in 1936 showed seventy collegiate nursing programs, most of which consisted of two years of general education before or after a regular three year hospital training program. Over half of these programs had been established between 1930 and 1936. By 1936, the number of hospital-based training programs had decreased from over 2,286 in 1929 to 1,472. This decrease in hospital programs is attributed both to the evaluation studies of nursing education and to the depression. By 1941, the number of hospital based nurse training programs was 1,400.[168]

In 1937, the third edition of the National League for Nursing's Curriculum Guide for Schools of Nursing was published. Two new assumptions contained in the guide were: (1) the primary function of a school of nursing should be to educate the nurse, not provide nursing service for patients; and (2) the nurse should serve the whole community, not just the hospital. A reorientation from sick care to health care was proposed and more emphasis was to be placed on mental health care.[169]

At a national nursing meeting held in 1946, a panel of nurses generally agreed that it would be wise to foster establishing schools of nursing in colleges and universities. (At this time, 91 percent of all nursing programs were hospital-based.) Senator Claude Pepper also spoke

at the meeting and said that ". . . nursing education, like other forms of professional education, should be directly financed by the individual and the family, by tuition grants, loans, scholarships, and fellowships paid for from private and government sources."[170]

In 1947, only four percent of all nurses graduating from training programs received university degrees. The American Medical Association at the same time was still debating the necessity and wisdom of nurses receiving any increase in theory. They believed that nurses were "legislating and educating themselves out of jobs."[171]

In 1948, a report funded by the Russell Sage Foundation written by Esther Lucille Brown entitled Nursing for the Future was published. Among its recommendations were that: nursing education programs should be moved from hospitals into colleges and universities; smaller weak hospital schools should be closed; and all schools should be officially examined and a list of all accredited schools be published with a re-examination taking place periodically. The Brown report was attacked at the 1948 American Medical Association meeting as ignoring the facts of life.[172]

A Committee to Implement the Brown Report surveyed all schools of nursing (96 percent participated) and classified them on a 100 point scale based on standards of nursing recommended by the professional organization (Table 22). Ranking of the schools using these criteria is shown in Table 23. Group I was the top 25 percent of all programs, Group II the middle 50 percent, and Group III the lower 25 percent. All 114 college-controlled schools participated in the study and all were classified in Groups I and II.[173]

Table 22. Criteria and Weights Used to Rate Schools of Nursing

Criterion	Weight
Administrative policies	3
Financial organization	3
Faculty	22
Curriculum	16
Clinical field	22
Library	6
Student selection; provision for student welfare	13
Student performance on state board examination	15
TOTAL SCORE	100

From: Kalish & Kalish. The Advance of American Nursing. Boston: Little, Brown and Co., 1978, p. 510.

Table 23. Ranking of Schools of Nursing Surveyed by the Committee to Implement the Brown Report

	Number of Schools	Number of Students
Group I	301	34,436
Group II	567	46,483
Group III	282	13,779

From: Kalish & Kalish. The Advance of American Nursing. Boston: Little, Brown and Co., 1978, p. 510.

The accreditation process for schools of nursing proposed in the Brown Report was initiated under the auspices of the National League for Nursing in 1952. By 1957, the total number of accredited nursing programs had increased by 72.4 percent while the total number of programs had dropped to 1,115. Between 1952 and 1957, the number of schools of nursing offering college degrees increased by 37 percent (to 161) while hospital-based diploma programs decreased to 936. There were also eighteen accredited associate degree nursing programs.[174]

Community College-Based Nursing Education Program

In 1952, a project aimed at developing nursing education programs in junior and community colleges was announced by Columbia University. The purpose of the project was to determine whether a two year program could prepare nurses for beginning, general bedside positions. This approach would reduce the critical post-war shortage of nurses by shortening the training period and help move nursing education into the overall mainstream of American higher education. In 1958, the study of seven community college-based nursing education programs concluded that the two-year curriculum could prepare a registered nurse and that such a program could become an integral part of a college and be financed as any other college program.[175] Thus began the third type of educational programs preparing registered nurses.

Summary

To this point, the development of nursing education in the United States has been briefly traced. The oldest type of education program developed to prepare nurses was the hospital-based diploma program established in 1872. University based baccalaureate nursing programs were then established in the early 1920s and the community college associate degree nursing program began in 1952. Graduates of all three types of educational programs wrote, and still write, the same state board licensing examination and were, and still are, viewed and used interchangeably by employers. The nursing component of both of the education programs based in academic institutions were (and many still are) variations of the hospital-based diploma nursing education programs with decreased clinical time and added science and general education

courses. Given this background, it now becomes appropriate to look at the present trends in nursing education curricula and enrollments.

Present Enrollment Patterns in Nursing Education Programs

The total number of all types of basic nursing education programs in the continental United States increased each year until 1973. From 1973 through 1978, there was a slight decrease in the overall number of basic nursing education programs. This number began to slowly increase again in 1979 and continued through 1982 which is the last year for which data are available (Table 24). Table 24 also shows that there has been a greater change among the types of programs than in the overall number of programs. The unmistakeable trend is that hospital-based diploma programs are decreasing in numbers while associate degree and baccalaureate programs are increasing.

While the overall number of basic nursing education programs shows a slight increase, the overall numbers of graduates from all types of basic registered nursing education programs remained virtually constant between 1975-75 and 1978-79 and showed a decrease from 1979-80 until 1981-82 (Table 25). Among the three types of basic nursing education programs, graduations from diploma programs have been steadily decreasing; those from baccalaureate programs decreasing since 1978-79, and those from associate degree programs increasing except for 1978-79 and 1979-80. Thus when viewed from this persepctive, nursing education is in a steady (stagnating) or possibly slightly declining state.

If there are fewer graduates from the same number or slightly more programs, either some programs are not admitting to the maximum of their potential, or more programs are reducing their capacity. Comparison of Tables 24 and 25 reveal that increased numbers of total programs produced the same or decreased numbers of graduates; decreased diploma programs

Table 24. Basic RN Programs and Percentage Change from Previous Year by Type of Program: United States, 1963 to 1982

YEAR[1]	NUMBER OF SCHOOLS[2]	ALL BASIC RN PROGRAMS		BACCALAUREATE PROGRAMS		ASSOCIATE DEGREE PROGRAMS		DIPLOMA PROGRAMS	
		Number of Programs	Percent Change	Number of Programs	Percent Change	Number of Programs	Percent Change	Number of Programs	Percent Change
1963	1,134	1,140	+1.2	182	+2.8	105	+25.0	853	-1.5
1964	1,145	1,150	+0.9	187	+2.7	130	+23.8	833	-2.3
1965	1,180	1,182	+2.8	197	+5.3	172	+32.3	813	-2.4
1966	1,206	1,212	+2.5	208	+5.6	215	+25.0	789	-3.0
1967	1,247	1,254	+3.5	219	+5.3	276	+28.4	759	-3.8
1968	1,272	1,278	+1.9	233	+6.4	324	+17.4	721	-5.0
1969	1,313	1,324	+3.6	252	+8.2	384	+18.5	688	-4.6
1970	1,330	1,340	+1.2	267	+6.0	437	+13.8	636	-7.6
1971	1,338	1,349	+0.7	282	+5.6	484	+10.8	583	-8.3
1972	1,350	1,362	+1.0	290	+2.8	532	+9.9	540	-7.4
1973	1,348	1,360	-0.1	302	+4.1	565	+6.2	493	-8.7
1974	1,347	1,358	-0.1	310	+2.6	588	+4.1	460	-6.7
1975	1,349	1,362	+0.3	326	+5.2	608	+3.4	428	-7.0
1976	1,337	1,358	-0.3	336	+3.1	632	+3.9	390	-8.9
1977	1,339	1,356	-0.1	344	+2.4	645	+2.1	367	-5.9
1978	1,340	1,358	+0.1	348	+1.2	666	+3.3	344	-6.3
1979	1,354	1,374	+1.2	363	+4.3	678	+1.8	333	-3.2
1980	1,360	1,385	+0.8	377	+3.9	697	+2.8	311	-6.6
1981	1,377	1,401	+1.2	383	+1.6	715	+2.6	303	-2.6
1982	1,406	1,432	+2.2	402	+5.0	742	+3.8	288	-5.0

[1]As of October 15 of each year.
[2]Excludes American Samoa, Guam, Puerto Rico, and the Virgin Islands.

From: National League for Nursing Data Book 1983-84. Pub. No. 19-1954. New York: National League for Nursing, 1984, p. 1.

Table 25. Graduations from Basic RN Programs and Percentage Change from Previous Year by Type of Program: United States, 1962-63 to 1981-82

ACADEMIC YEAR	ALL BASIC RN PROGRAMS[1]		BACCALAUREATE PROGRAMS		ASSOCIATE DEGREE PROGRAMS		DIPLOMA PROGRAMS	
	Number of Graduations	Percent Change	Number of Graduations	Percent Change	Number of Graduations	Percent Change	Number of Graduations	Percent Change
1962-63	32,223	+3.9	4,477	+4.3	1,479	+27.6	26,267	+2.8
1963-64	35,050	+8.8	5,053	+12.9	1,962	+32.7	28,035	+6.7
1964-65	34,497	-1.6	5,376	+6.4	2,510	+27.9	26,611	-5.1
1965-66	34,909	+1.2	5,488	+2.1	3,349	+33.4	26,072	-2.0
1966-67	37,931	+8.7	6,122	+11.5	4,639	+38.5	27,170	+4.2
1967-68	41,245	+8.7	7,132	+16.5	6,163	+32.8	27,950	+2.9
1968-69	41,801	+1.3	8,355	+17.1	8,578	+39.2	24,868	-11.0
1969-70	43,103	+3.1	9,069	+8.5	11,483	+33.9	22,551	-9.3
1970-71	46,455	+7.8	9,856	+8.7	14,534	+26.6	22,065	-2.2
1971-72	51,304	+10.4	10,968	+11.3	18,926	+30.2	21,410	-3.0
1972-73	58,881	+14.8	13,055	+19.0	24,497	+29.4	21,329	-0.4
1973-74	67,061	+13.9	16,957	+29.9	28,919	+18.0	21,185	-0.7
1974-75	73,915	+10.2	20,170	+18.9	32,183	+11.3	21,562	+1.8
1975-76	77,065	+4.3	22,579	+11.9	34,625	+7.6	19,861	-7.9
1976-77	77,755	+0.9	23,452	+3.9	36,289	+4.8	18,014	-9.3
1977-78	77,874	+0.1	24,187	+3.1	26,556	+0.7	17,131	-4.9
1978-79	77,132	-1.0	25,048	+3.6	36,264	-0.8	15,820	-7.7
1979-80	75,523	-2.1	24,994	-0.2	36,034	-0.6	14,495	-8.4
1980-81	73,985	-2.0	24,370	-2.5	36,712	+1.9	12,903	-11.0
1981-82	74,052	+0.1	24,081	-1.2	38,289	+4.3	11,682	-9.5

[1]Excludes American Samoa, Guam, Puerto Rico and the Virgin Islands.

From: National League for nursing Data Book 1983-84. Pub. No. 19-1954. New York: National League for Nursing, 1984. p. 37.

graduated fewer nurses; increased numbers of associate degree programs graduated increased numbers of nurses, however, the percent of increase in numbers of programs was greater than the percent of increased graduates. In contrast, figures for the baccalaureate programs show increased numbers of programs graduated fewer numbers of students.

Figures in Table 26 reflect the number of basic nursing education programs by National League for Nursing geographic region and size of student enrollment. A list of states included in each National League for Nursing geographic region is contained in Appendix A. Figures in Table 26 show that there has been a slight decline in the total number of programs in the North Atlantic Region with slight growth in the overall numbers of programs in the other three regions. Over two-thirds of all nursing education programs can enroll a maximum of 199 students each with this being almost equally divided between programs able to enroll under 100 students and those able to enroll 100 to 199 students. Schools able to enroll 300 or more students are in the minority.

Tables 27, 28 and 29 contain the specific breakdown of potential enrollment by type of program and geographic region. Only the number of associate degree nursing programs has remained steady or increased in all size classifications, while the diploma and baccalaureate programs have shown increases and decreases in various sized programs over the years. The trend, however, for basic baccalaureate nursing programs is an increase in the number of programs enrolling up to 199 students. Associate degree programs show the greatest growth in programs enrolling from 100 to 299 students. Both baccalaureate and associate degree programs enrolling 300 or more students show a decrease in the number of

Table 26. Basic RN Programs by National League for Nursing Region and Size of Student Enrollment: 1973 to 1982

NLN REGION BY SIZE OF STUDENT ENROLLMENT	NUMBER OF BASIC RN PROGRAMS									
	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
ALL REGIONS	1,373	1,372	1,375	1,272	1,372	1,374	1,389	1,483	1,422	1,455
Under 100	428	411	412	407	408	435	477	501	512	505
100-199	597	602	572	559	555	555	543	532	522	553
200-299	204	189	208	224	237	212	194	201	218	227
300-399	67	85	93	95	88	83	90	80	75	81
400 and Over	77	85	90	88	84	89	85	89	95	89
North Atlantic	403	402	402	384	370	359	351	344	342	343
Under 100	96	101	107	99	89	93	91	98	95	84
100-199	197	194	170	162	160	148	147	125	128	138
200-299	60	51	53	55	58	57	50	56	62	69
300-399	22	25	31	36	29	26	27	32	24	22
400 and Over	28	21	21	32	34	35	36	33	33	30
Midwestern	394	391	388	388	387	393	404	409	417	424
Under 100	108	91	90	86	93	101	128	133	132	135
100-199	175	187	182	183	172	179	170	169	166	164
200-299	67	62	64	67	75	67	61	65	75	77
300-399	24	30	29	30	25	21	24	19	18	25
400 and Over	20	21	23	22	22	25	21	23	26	23
Southern	396	401	404	418	430	433	445	457	468	486
Under 100	158	150	147	151	160	165	181	193	208	204
100-199	146	152	145	146	146	157	156	162	158	175
200-299	58	56	63	75	78	64	56	54	52	56
300-399	15	20	20	20	23	24	31	21	23	23
400 and Over	19	23	29	26	23	23	21	27	27	28
Western	180	178	181	183	185	189	189	193	195	202
Under 100	66	69	68	71	66	76	77	77	77	82
100-199	79	69	75	68	77	71	70	76	70	76
200-299	19	20	18	27	26	24	27	26	29	25
300-399	6	10	13	9	11	12	8	8	10	11
400 and Over	10	10	7	8	5	6	7	6	9	8

1As of October 15 of each year.

From: National League for Nursing Data Book 1983-34. New York: National League for Nursing, 1984, p. 7.

Table 27. Baccalaureate Nursing Programs by National League for Nursing Region and Size of Student Enrollment: 1973-1982

NLN REGION BY SIZE OF STUDENT ENROLLMENT	NUMBER OF BACCALAUREATE NURSING PROGRAMS									
	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
ALL REGIONS	305	313	329	341	349	353	368	391	393	414
Under 100	41	30	40	46	47	49	64	78	90	108
100-199	103	105	90	90	86	91	95	104	104	115
200-299	67	66	74	74	91	90	88	77	81	77
300-399	37	49	52	56	55	48	51	55	47	48
400 and Over	57	63	73	75	70	75	70	77	71	66
North Atlantic	83	86	91	93	95	95	95	96	101	103
Under 100	8	8	9	8	6	8	6	7	13	14
100-199	28	26	19	22	22	20	21	21	20	23
200-299	18	19	24	17	23	24	22	20	27	27
300-399	12	14	16	21	17	14	17	21	15	15
400 and Over	17	19	23	25	27	29	29	27	26	24
Midwestern	88	89	93	95	96	97	105	110	111	117
Under 100	16	10	13	15	16	13	25	28	28	35
100-199	26	21	27	28	27	31	29	28	30	33
200-299	19	16	19	15	19	20	19	22	23	19
300-399	10	15	14	16	14	11	15	14	11	14
400 and Over	17	17	20	21	20	22	17	18	19	16
Southern	89	95	101	110	114	118	135	136	139	149
Under 100	11	8	13	19	21	24	29	39	45	52
100-199	35	37	32	27	24	30	33	40	41	45
200-299	19	21	22	32	36	30	30	22	21	20
300-399	10	11	11	11	15	16	16	14	13	12
400 and Over	14	18	23	21	18	18	17	21	19	20
Western	45	43	44	43	44	43	43	43	42	45
Under 100	6	4	5	4	4	4	4	4	4	7
100-199	14	11	12	13	13	10	12	15	13	14
200-299	11	10	9	10	13	16	17	13	10	11
300-399	5	9	11	8	9	7	3	6	8	7
400 and Over	9	9	7	8	5	6	7	5	7	6

1As of October 15 of each year.

From: National League for Nursing Data Book 1983-84. New York: National League for Nursing, 1984, p. 8.

Table 28. Associate Degree Nursing Programs by National League for Nursing Region and Size of Student Enrollment: 1973 to 1982

NLN REGION BY SIZE OF STUDENT ENROLLMENT	NUMBER OF ASSOCIATE DEGREE NURSING PROGRAMS									
	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
ALL REGIONS	574	598	618	642	656	677	688	707	726	753
Under 100	237	238	241	250	258	276	291	306	310	311
100-199	237	259	261	263	272	287	285	280	283	298
200-299	10	63	76	90	91	75	66	83	88	101
300-399	16	22	26	29	24	28	33	22	23	23
400 and Over	14	16	14	10	11	11	13	16	22	20
North Atlantic	101	105	112	115	116	119	120	121	119	124
Under 100	24	21	25	28	25	27	25	31	27	30
100-199	44	54	50	49	56	57	62	51	57	55
200-299	17	11	18	18	18	18	16	22	19	26
300-399	6	8	11	13	10	11	10	11	9	7
400 and Over	10	11	8	7	7	6	7	6	7	6
Midwestern	137	147	150	156	158	167	172	180	191	199
Under 100	52	50	52	51	57	63	70	77	79	84
100-199	62	71	71	73	68	73	72	71	74	72
200-299	15	16	16	21	24	21	19	22	27	31
300-399	6	7	8	9	7	7	7	5	4	5
400 and Over	2	3	3	1	2	3	4	5	7	7
Southern	216	224	230	242	251	254	259	263	270	280
Under 100	105	105	103	106	115	116	125	127	133	125
100-199	74	82	83	90	91	101	98	99	97	111
200-299	31	28	34	37	36	28	21	27	25	30
300-399	4	7	7	7	7	7	13	5	8	8
400 and Over	2	2	3	2	2	2	2	5	7	6
Western	120	122	126	130	131	137	137	143	146	150
Under 100	56	62	61	65	61	70	71	71	71	72
100-199	57	52	57	51	57	56	53	59	55	60
200-299	7	8	8	14	13	8	10	12	17	14
300-399	0	0	0	0	0	3	3	1	2	3
400 and Over	0	0	0	0	0	0	0	0	1	1

[1] As of October 15 of each year.

From: National League for Nursing Data Book 1983-84. New York: National League Nursing, 1984, p. 9.

Table 29. Diploma Nursing Programs by National League for Nursing and Size of Student Enrollment: 1973 to 1982

NLN REGION BY SIZE OF STUDENT ENROLLMENT	NUMBER OF DIPLOMA NURSING PROGRAMS									
	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
All Regions	484	461	428	390	367	344	333	311	303	288
Under 100	150	143	131	111	103	110	122	117	112	86
100-199	257	238	221	206	197	177	163	148	135	140
200-299	67	60	58	60	55	47	40	41	49	49
300-399	14	14	15	10	9	7	6	3	5	10
400 and Over	6	6	3	3	3	3	2	2	2	3
North Atlantic	219	211	199	176	159	145	136	127	122	116
Under 100	64	72	73	63	58	58	60	60	55	40
100-199	125	114	101	91	82	71	64	53	51	60
200-299	25	21	21	20	17	15	12	14	16	16
300-399	4	3	4	2	2	1	0	0	0	0
400 and Over	1	1	0	0	0	0	0	0	0	0
Midwestern	169	155	145	138	133	129	127	119	115	108
Under 100	40	31	25	20	20	25	33	28	25	16
100-199	87	85	84	82	77	75	69	70	62	59
200-299	33	30	29	31	32	26	23	21	25	27
300-399	8	8	7	5	4	3	2	0	3	6
400 and Over	1	1	0	0	0	0	0	0	0	0
Southern	91	82	73	66	65	61	61	58	59	57
Under 100	42	37	31	26	24	25	27	27	30	27
100-199	37	33	30	29	31	26	25	23	20	19
200-299	8	7	7	6	6	6	5	5	6	6
300-399	1	2	2	2	1	1	2	2	2	3
400 and Over	3	3	3	3	3	3	2	1	1	2
Western	15	13	11	10	10	9	9	7	7	7
Under 100	4	3	2	2	1	2	2	2	2	3
100-199	8	6	6	4	7	5	5	2	2	2
200-299	1	2	1	3	0	0	0	1	2	0
300-399	1	1	2	1	2	2	2	1	0	1
400 and Over	1	1	0	0	0	0	0	1	1	1

[1]As of October 15 of each year.

From: National League for Nursing Data Book 1983-84. New York: National League Nursing, 1984, p. 10.

programs. In contrast, the number of diploma progams enrolling 300 to 399 students doubled between 1981 and 1982. The greatest decrease in numbers of diploma programs was those with enrollments under 100 students.

Figures in Table 27 also show virtually no change in the overall number of baccalaureate programs in the North Atlantic and Western regions and a small increase in the numbers of programs in the Midwestern and Southern regions. The number of associate degree programs has increased in all regions, but only slightly in the North Atlantic region (Table 28). The number of diploma programs has decreased in all regions with the South and West showing the least decline (Table 29). In the regions with diploma programs, the majority of those programs are concentrated in eight states, whereas the distribution of baccalaureate and associate degree programs is more even (Table 30).

The total annual admissions to all three types of basic nursing programs increased for two years in a row (1980-81 and 1981-82) following three consecutive years of decline (Table 31). This two year gain for all types of programs last occurred in 1971-73. The increase in admissions to diploma programs must be considered in light of the decrease in the number of programs (Table 24). Figures in Table 31 also reveal that admissions to associate degree programs have steadily increased while those in baccalaureate programs decreased in 1978-79 and 1979-80. Despite the increases and decreases, the number of admissions to baccalaureate nursing programs remained virtually unchanged from 1978-79 through 1981-82.

Though the number of admissions to all types of basic nursing programs has shown a recent increase, the number of vacancies in each type of program is still substantial (Table 32). While the overall vacancy

Table 30. Distribution of Baccalaureate, Diploma and Associate Degree Nursing Programs by State and National League for Nursing Geographic Region, 1982

NORTH ATLANTIC REGION					SOUTHERN REGION				
State	Total	DIP.	AD.	BA.	State	Total	DIP.	AD.	BA.
Connecticut	15	2	6	7	Alabama	37	4	20	13
Delaware	7	2	3	2	Arizona	20	2	11	7
Washington, D.C.	6	0	1	5	Florida	35	1	22	12
Maine	10	4	4	2	Georgia	32	3	19	10
Massachusetts	48	15	19	14	Kentucky	27	1	20	6
New Hampshire	11	4	4	3	Louisiana	17	3	6	8
New Jersey	38	18	13	7	Maryland	24	5	14	5
New York	98	20	47	31	Mississippi	23	2	14	7
Pennsylvania	95	46	21	28	N. Carolina	55	7	36	12
Rhode Island	7	2	2	3	Oklahoma	26	1	15	10
Vermont	5	0	4	1	S. Carolina	19	1	14	4
					Tennessee	32	7	16	9
					Texas	64	5	38	21
					Virginia	37	13	15	9
					W. Virginia	17	2	11	4
TOTALS	340	113	124	103	TOTALS	465	57	271	137

MIDWEST REGION					WESTERN REGION				
State	Total	DIP.	AD.	BA.	State	Total	DIP.	AD.	BA.
Illinois	79	24	34	21	Arizona	18	0	14	4
Indiana	30	6	14	10	California	90	4	67	19
Iowa	39	9	20	10	Colorado	12	2	7	3
Kansas	31	3	19	9	Idaho	6	0	5	1
Michigan	50	7	30	13	Montana	4	0	2	2
Minnesota	26	4	12	10	Nevada	5	0	4	1
Missouri	38	10	19	9	New Mexico	11	0	10	1
Nebraska	11	5	2	4	Oregon	16	1	13	2
North Dakota	9	3	2	4	Utah	5	0	2	3
Ohio	71	29	28	14	Washington	22	0	16	6
South Dakota	9	2	4	3	Wyoming	4	0	3	1
Wisconsin	31	6	15	10					
TOTALS	424	108	199	117	TOTALS	193	7	143	43

From: National League for Nursing Data Book 1983-84. New York: National League for Nursing, 1984, pp. 4, 5 & 6.

Table 31. Admissions to Basic RN Programs and Percentage of Change from Previous Year by Type of Program: United States, 1962-63 to 1981-82

ACADEMIC YEAR	ALL BASIC RN PROGRAMS[1]		BACCALAUREATE PROGRAMS		ASSOCIATE DEGREE PROGRAMS		DIPLOMA PROGRAMS	
	Number of Admissions	Percent Change	Number of Admissions	Percent Change	Number of Admissions	Percent Change	Number of Admissions	Percent Change
1962-63	49,228	-0.6	9,585	+6.1	3,490	+39.4	36,153	-4.8
1963-64	52,274	+6.2	10,242	+6.9	4,461	+27.8	37,571	+3.9
1964-65	57,180	+9.4	11,800	+15.2	6,144	+37.7	39,236	+4.4
1965-66	60,191	+5.3	13,103	+11.0	8,544	+39.1	38,544	-1.8
1966-67	58,021	-3.6	14,012	+6.9	11,137	+30.3	32,872	-14.7
1967-68	60,673	+4.6	14,813	+5.7	14,577	+30.9	31,283	-4.8
1968-69	63,408	+4.5	15,901	+7.3	18,536	+27.2	28,971	-7.4
1969-70	74,598	+17.6	18,942	+19.1	25,142	+35.6	30,154	+5.3
1970-71	78,524	+5.3	20,299	+7.2	29,433	+17.1	28,792	-5.6
1971-72	93,344	+18.9	27,228	+34.1	36,454	+23.8	29,662	+3.0
1972-73	103,789	+11.2	30,348	+11.5	43,733	+20.0	29,708	+0.1
1973-74	107,344	+3.4	32,461	+7.0	47,940	+9.6	26,943	-9.3
1974-75	109,020	+1.6	34,956	+7.7	49,368	+3.0	24,696	-8.3
1975-76	112,174	+2.9	36,320	+3.9	52,232	+5.8	23,622	-4.3
1976-77	112,523	+0.3	36,670	+1.0	53,610	+2.6	22,243	-5.8
1977-78	110,950	-1.4	37,348	+1.8	52,991	-1.1	20,611	-7.3
1978-79	107,476	-3.2	35,611	-4.7	53,366	+0.7	18,499	-10.2
1979-80	105,952	-1.4	35,414	-0.5	53,633	+0.5	16,905	-8.6
1980-81	110,201	+4.0	35,808	+1.1	56,899	+6.1	17,494	+3.5
1981-82	115,279	+4.6	35,928	+0.3	60,423	+6.1	18,928	+8.1

[1]Excludes American Samoa, Guam, Puerto Rico, and the Virgin Islands.

From: National League for Nursing Data Book 1983-84. New York: National League for Nursing, 1984, p. 21.

Table 32. Vacancies Per Fall Admission for Basic RN Programs by Type of Program and National League for Nursing Region: 1974 to 1982

REGION BY YEAR	ALL PROGRAMS REPORTING[1]			BACCALAUREATE PROGRAMS			ASSOCIATE DEGREE PROGRAMS			DIPLOMA PROGRAMS		
	Number of Programs Reporting Vacancies	Number of Vacancies	Vacancies per Fall Admission	Number of Programs Reporting Vacancies	Number of Vacancies	Vacancies per Fall Admission	Number of Programs Reporting Vacancies	Number of Vacancies	Vacancies per Fall Admission	Number of Programs Reporting Vacancies	Number of Vacancies	Vacancies per Fall Admission
All Regions												
1974	326	3,978	0.19	66	1,384	0.29	112	1,212	0.17	148	1,382	0.16
1975	303	3,545	0.19	62	1,670	0.40	114	980	0.13	126	895	0.13
1976	339	3,026	0.15	62	1,119	0.19	128	1,015	0.13	129	892	0.13
1977	436	4,612	0.18	90	1,256	0.21	162	1,748	0.18	184	1,608	0.17
1978	540	6,748	0.24	114	1,875	0.24	224	2,565	0.19	202	2,308	0.23
1979	555	8,739	0.22	155	3,089	0.26	253	2,820	0.17	237	2,830	0.25
1980	523	6,342	0.22	171	3,437	0.28	252	2,858	0.18	190	2,047	0.21
1981	567	7,807	0.23	207	4,309	0.32	254	1,877	0.15	156	1,621	0.21
1982	491	6,716	0.23	196	4,545	0.34	178	1,584	0.15	117	1,067	0.18
North Atlantic												
1974	87	1,076	0.18	15	291	0.29	16	132	0.09	56	653	0.19
1975	84	733	0.15	17	339	0.27	17	116	0.09	50	278	0.11
1976	64	630	0.12	19	253	0.17	19	142	0.09	46	235	0.11
1977	116	1,264	0.18	26	528	0.23	23	192	0.10	67	574	0.18
1978	131	979	0.25	26	391	0.18	38	521	0.27	67	767	0.27
1979	162	1,902	0.18	35	678	0.19	40	348	0.11	87	876	0.25
1980	143	1,802	0.19	37	765	0.23	38	481	0.16	68	556	0.19
1981	152	2,198	0.22	57	1,164	0.27	39	524	0.16	56	510	0.21
1982	132	2,040	0.24	50	1,312	0.36	36	377	0.14	46	351	0.15
Midwestern												
1974	116	1,246	0.17	24	460	0.26	33	318	0.17	59	468	0.13
1975	99	1,120	0.16	24	449	0.27	28	264	0.13	47	407	0.13
1976	123	1,162	0.14	30	336	0.15	37	404	0.17	56	422	0.12
1977	144	1,386	0.16	27	236	0.10	41	477	0.18	76	673	0.15
1978	178	1,938	0.18	31	478	0.25	53	382	0.15	94	1,078	0.21
1979	208	2,718	0.22	50	765	0.24	64	679	0.17	94	1,274	0.26
1980	201	2,727	0.23	55	969	0.30	68	740	0.17	78	1,018	0.23
1981	163	2,017	0.21	57	1,007	0.31	49	372	0.13	57	638	0.19
1982	147	1,927	0.23	55	1,009	0.38	50	409	0.14	42	509	0.19
Southern												
1974	99	1,304	0.20	21	529	0.32	48	539	0.17	30	245	0.16
1975	97	1,524	0.27	19	856	0.73	50	464	0.16	28	204	0.14
1976	101	938	0.16	24	372	0.24	54	344	0.11	23	222	0.20
1977	137	1,590	0.22	31	407	0.23	70	691	0.24	36	292	0.16
1978	180	2,316	0.23	49	889	0.28	92	976	0.19	39	451	0.24
1979	220	3,305	0.26	57	1,430	0.35	114	1,265	0.20	49	610	0.26
1980	204	3,021	0.26	62	1,427	0.33	102	1,172	0.22	40	422	0.23
1981	188	2,976	0.28	74	1,601	0.40	85	744	0.17	29	431	0.23
1982	161	2,173	0.24	72	1,347	0.32	63	627	0.16	26	199	0.24
Western												
1974	24	352	0.28	6	113	0.35	15	223	0.29	3	16	0.09
1975	23	168	0.15	3	26	0.18	19	136	0.15	1	6	0.10
1976	31	296	0.18	9	158	0.23	18	125	0.17	4	13	0.07
1977	39	342	0.22	6	85	0.38	28	188	0.15	5	69	0.53
1978	51	515	0.20	8	117	0.22	41	386	0.19	2	12	0.24
1979	65	814	0.21	18	216	0.20	45	528	0.20	7	70	0.34
1980	75	792	0.18	17	276	0.21	54	465	0.16	4	51	0.25
1981	54	616	0.18	19	337	0.23	31	237	0.14	4	42	0.24
1982	51	576	0.20	19	377	0.30	29	171	0.13	3	28	0.13

[1] To be included in this tabulation a nursing program (1) must have answered the question on number of vacancies and (2) must have admitted a class in the fall of the survey year

From: National League for Nursing Data Book 1983-84. New York: National League for Nursing, 1984, p. 35.

rate per fall admission has remained constant, those in associate degree and diploma programs have been decreasing while those in baccalaureate programs have been rising. Figures in Table 32 also reveal that the vacancy rate for baccalaureate programs reporting exceeds that of both associate degree and diploma programs. By geographic region, baccalaureate programs in the North Atlantic and Midwestern regions showed higher vacancy rates in 1982 than in any previously reported year.

The number of names on waiting lists for admission to the various types of basic nursing programs is noted in Table 33. Comparing the figures for baccalaureate program vacancies (Table 32) with the number of names on waiting lists for baccalaureate programs reveals that there are enough vacancies to accommodate all persons on the waiting lists and forty-one spaces to spare. By region, the North Atlantic and South show more vacancies in baccalaureate nursing programs than persons waiting to enroll while the Midwest and West regions show more persons waiting than vacancies. In contrast to the apparent overall equilibrium of persons waiting and vacancies in baccalaureate nursing programs, there are 1,000 more vacancies than persons waiting to enroll in diploma programs, thus re-enforcing their continued potential for decrease. At the same, there are approximately 15,000 more persons waiting to enter associate degree nursing programs than there are vacancies.

Summary

The information presented on numbers and types of basic nursing education programs shows that the majority of all of these programs are now located in institutions of higher education. The number of hospital-based diploma programs is showing a marked and steady decrease. The

Table 33. Number of Names on Waiting List Per Fall Admission for Basic RN Programs by Type of Program and National League for Nursing Region: 1974 to 1982

REGION BY YEAR	ALL PROGRAMS REPORTING[1]			BACCALAUREATE PROGRAMS			ASSOCIATE DEGREE PROGRAMS			DIPLOMA PROGRAMS		
	Number of Programs Reporting Names on Waiting List	Number of Names on Waiting List	Alternates per Fall Admission	Number of Programs Reporting Names on Waiting List[1]	Number of Names on Waiting List	Alternates per Fall Admission	Number of Programs Reporting Names on Waiting List[1]	Number of Names on Waiting List	Alternates per Fall Admission	Number of Programs Reporting Names on Waiting List[1]	Number of Names on Waiting List	Alternates per Fall Admission
All Regions												
1974	569	24.859	0.61	95	4.081	0.44	287	18.096	0.89	187	2.682	0.24
1975	563	29.607	0.73	83	2.699	0.36	297	23.680	1.07	183	3.228	0.29
1976	515	26.819	0.73	86	3.105	0.39	261	21.160	1.16	168	2.554	0.24
1977	441	24.752	0.78	79	3.343	0.45	250	19.954	1.14	112	1.455	0.22
1978	390	21.474	0.80	71	3.104	0.46	239	17.670	1.13	80	700	0.16
1979	309	13.703	0.66	58	1.858	0.36	211	11.445	0.86	40	400	0.18
1980	301	13.970	0.68	53	1.492	0.33	197	12.125	0.95	51	353	0.11
1981	345	14.138	0.62	43	1.245	0.37	235	12.065	0.80	67	828	0.19
1982	516	21.645	0.57	87	4.004	0.49	349	16.646	0.70	80	995	0.16
North Atlantic												
1974	190	6.992	0.47	36	2.356	0.62	57	3.303	0.59	97	1.333	0.25
1975	177	6.743	0.52	28	891	0.38	58	4.417	0.78	91	1.435	0.29
1976	150	4.637	0.43	21	680	0.33	47	2.948	0.68	82	1.009	0.23
1977	125	4.776	0.49	24	1.287	0.57	49	2.926	0.63	52	563	0.20
1978	110	4.046	0.45	25	1.531	0.52	50	2.237	0.52	35	278	0.16
1979	80	2.248	0.36	17	825	0.45	46	1.302	0.36	17	121	0.14
1980	68	1.497	0.30	16	506	0.34	33	897	0.35	19	94	0.10
1981	96	2.020	0.28	18	380	0.23	47	1.367	0.35	31	273	0.15
1982	100	4.092	0.46	19	1.248	0.61	55	2.490	0.49	26	354	0.20
Midwestern												
1974	163	7.974	0.67	25	545	0.26	75	6.369	1.14	63	1.060	0.25
1975	169	10.306	0.81	22	741	0.40	79	8.217	1.37	68	1.348	0.27
1976	156	8.653	0.73	24	683	0.29	71	6.945	1.36	61	1.025	0.23
1977	125	7.698	0.83	24	668	0.31	61	6.424	1.47	40	606	0.22
1978	104	5.702	0.82	22	1.033	0.55	52	4.371	1.35	30	298	0.16
1979	92	4.848	0.82	20	363	0.25	54	4.323	1.27	18	162	0.15
1980	102	5.959	0.85	17	298	0.20	59	5.465	1.50	26	196	0.10
1981	94	3.821	0.63	10	378	0.59	59	2.981	0.80	25	462	0.27
1982	166	7.132	0.52	21	1.338	0.44	101	5.245	0.74	44	549	0.15
Southern												
1974	152	5.859	0.57	21	393	0.16	109	5.247	0.80	22	219	0.17
1975	158	8.711	0.72	23	637	0.24	116	7.829	0.94	19	245	0.23
1976	154	8.835	0.86	30	1.097	0.40	104	7.433	1.19	20	305	0.23
1977	142	7.755	0.81	25	1.064	0.41	103	6.540	1.05	14	151	0.19
1978	128	7.625	0.94	16	260	0.19	100	7.303	1.20	12	62	0.10
1979	94	4.098	0.68	14	500	0.39	76	3.515	0.78	4	83	0.31
1980	101	4.767	0.70	13	481	0.43	83	4.225	0.80	5	61	0.15
1981	112	5.575	0.81	12	400	0.50	92	5.117	0.95	8	58	0.09
1982	152	6.478	0.61	28	714	0.34	115	5.672	0.73	9	92	0.12
Western												
1974	64	4.034	1.06	13	787	0.87	46	3.177	1.18	5	70	0.31
1975	59	3.847	1.26	10	430	0.82	44	3.217	1.39	5	200	0.94
1976	55	4.694	1.33	11	645	0.80	39	3.834	1.53	5	215	1.02
1977	49	4.523	1.50	6	324	0.78	37	4.064	1.77	6	135	0.44
1978	48	4.101	1.44	8	280	0.47	37	3.759	1.85	3	62	0.28
1979	43	2.509	[illegible]	7	170	0.30	35	2.305	1.24	1	34	0.60
1980	30	1.747	0.94	7	207	0.43	22	1.538	1.15	1	2	0.04
1981	43	2.722	1.02	3	87	0.34	37	2.600	1.21	3	35	0.14
1982	98	3.943	0.80	19	704	0.65	78	3.239	0.83	1	0	0.00

[1]To be included in this tabulation, a nursing program (1) must have answered the question on number of names on waiting list and (2) must have admitted a class in the fall of the survey year.

From: National League for Nursing Data Book 1983-84. New York: National League for Nursing, 1984, p. 36.

number of baccalaureate nursing programs is increasing, however, the percentage of enrollments is not increasing proportionately. Numbers of and enrollments in associate degree programs are showing steady increases. Overall, there are more persons on waiting lists to be admitted to basic nursing programs than there are vacancies. By type of program numbers of vacancies and numbers of names on waiting lists for baccalaureate nursing education programs are virtually in equilibrium, while vacancies exceed applicants in diploma programs and applicants far exceed vacancies in associate degree programs.

Figures for numbers of graduates from baccalaureate nursing programs show decreases while there are slight annual increases in the numbers of these types of pograms. It would thus seem seem that if the number of vacancies and names on waiting lists for baccalaureate nursing programs are now equal and more programs are opening annually that within several years, many programs could notice decreased enrollments unless some action is taken in the meantime to increase the marketing or demand for this type of program.

By size of program, 35 percent of all basic nursing education programs can accommodate a maximum potential enrollment of under 100 students, while 38 percent of the programs can accommodate between 100 and 199 students. Sixteen percent of the schools can serve between 200 and 299 students with the remaining 11 percent divided almost equally between schools serving 300 to 399 students and 400 or more.

By National League for Nursing geographic region, the greatest numbers of generic baccalaureate nursing programs is located in the South and the smallest numbers in the West. The North Atlantic region has the highest percentage of large generic baccaluareate nursing programs while

the South has more programs serving 100 or fewer generic baccalaureate nursing students. The West has the lowest percentage of generic baccalaureate nursing programs to total nursing education programs, while the North Atlantic and South have the highest. Generic baccalaureate nursing programs located in those states with high numbers of those programs have the greatest potential for review and potential downsizing or discontinuance due to the duplication of programs.

Given this overview of the numbers and types of nursing education programs, it seems appropriate now to look at the faculty in those programs. This overview will consider numbers and qualifications of faculty as well as their workload.

FACULTY QUALIFICATIONS/WORKLOAD

The acadmeic preparation of full-time nursing faculty teaching in all three types of basic nursing programs has been upgraded over the years (Table 34). In all types of programs, the percent of nurse-faculty with doctorates and master's degrees has increased while the percent with baccalaureate and lower degrees has decreased. Despite these increases, it is evident that there is only a small number of nurse faculty with doctorates. Doctorates were held by 71 percent of the nurse administrators in baccalaureate and higher degree programs.[176]

When educational preparation is viewed by type of program, it can be seen that over 90 percent of the full-time nurse faculty with doctorates are employed in baccalaureate and higher degree programs. Diploma programs employ the smallest percent of doctorally prepared faculty. Diploma programs also employ the largest percent of baccalaureate pre-

Table 34. Full-Time Nurse-Faculty by Highest Earned Credential and Type of Program: Jurisdictions of the United States, 1964 to 1982, Biannually

YEAR	TOTAL FACULTY REPORTED		HIGHEST EARNED CREDENTIAL									
			DOCTORATE		MASTER'S		BACCALAUREATE		ASSOCIATE DEGREE		DIPLOMA	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
ALL REPORTING PROGRAMS												
1964	12.563	100.0	164	1.3	4.762	37.9	5.238	41.7	137	1.1	2.264	18.0
1966	13.476	100.0	297	2.2	5.465	40.5	5.509	40.9	55	0.4	2.150	16.0
1968	14.974	100.0	265	1.8	6.209	41.5	6.071	40.5	62	0.4	2.367	15.8
1970	15.566	100.0	334	2.1	6.781	43.6	6.372	41.0	78	0.5	1.980	12.8
1972	16.794	100.0	445	2.6	8.139	48.5	6.569	39.2	66	0.4	1.555	9.3
1974	19.204	100.0	682	3.6	9.985	52.0	7.110	37.0	118	0.6	1.309	6.8
1976	20.572	100.0	887	4.3	11.887	58.6	6.975	33.9	138	0.7	885	4.3
1978	20.217	100.0	1.062	5.3	12.637	62.5	5.865	29.0	83	0.4	570	2.8
1980	20.365	100.0	1.418	7.0	13.826	67.9	4.687	23.0	61	0.3	363	1.8
1982	19.742	100.0	1.657	8.4	14.086	71.3	3.751	19.0	35	0.2	214	1.1
BACCCALAUREATE AND HIGHER DEGREE												
1964	3.128	100.0	145	4.6	2.502	80.0	475	15.2	0	0.0	6	0.2
1966	4.073	100.0	258	6.4	3.275	80.4	527	12.9	0	0.0	12	0.3
1968	4.288	100.0	240	5.6	3.435	80.1	607	14.1	2	0.1	5	0.1
1970	4.887	100.0	305	6.2	3.884	79.1	692	14.2	5	0.1	21	0.4
1972	5.534	100.0	408	7.4	4.530	81.9	594	10.7	0	0.0	2	0.0
1974	7.044	100.0	621	8.8	5.578	79.2	833	11.8	5	0.1	7	0.1
1976	8.567	100.0	817	9.5	6.737	78.7	984	11.5	19	0.2	10	0.1
1978	8.794	100.0	992	11.3	7.072	80.4	717	8.2	4	0.0	9	0.1
1980	9.531	100.0	1.278	13.4	7.763	81.4	485	5.1	0	0.0	5	0.1
1982	9.502	100.0	1.533	16.1	7.647	80.5	321	3.4	0	0.0	1	0.0
ASSOCIATE DEGREE PROGRAMS												
1964	486	100.0	8	1.6	326	67.8	132	28.6	16	3.2	4	0.8
1966	904	100.0	12	1.3	618	68.4	257	28.4	4	0.5	13	1.4
1968	1.646	100.0	11	0.7	1.021	62.0	574	34.9	6	0.4	34	2.0
1970	2.461	100.0	10	0.4	1.444	58.7	947	38.5	24	1.0	36	1.4
1972	3.588	100.0	25	0.7	2.077	57.9	1.401	39.0	27	0.8	58	1.6
1974	4.986	100.0	46	0.9	2.824	56.5	1.982	39.3	60	1.2	103	2.1
1976	5.688	100.0	57	1.0	3.304	58.2	2.147	37.8	63	1.1	108	1.9
1978	5.930	100.0	56	0.9	3.785	63.9	1.927	32.5	56	0.9	105	1.8
1980	6.038	100.0	128	2.1	4.216	69.8	1.593	26.4	34	0.6	66	1.1
1982	5.863	100.0	108	1.8	4.394	74.9	1.295	22.1	27	0.5	39	0.7
DIPLOMA PROGRAMS												
1964	8.938	100.0	11	0.1	1.924	21.5	4.629	51.8	121	1.4	2.254	25.2
1966	8.499	100.0	26	0.3	1.572	18.5	4.725	55.6	51	0.6	2.125	25.0
1968	9.039	100.0	14	0.2	1.753	19.4	4.880	54.1	54	0.6	2.328	25.7
1970	8.207	100.0	19	0.2	1.473	17.9	4.733	57.7	49	0.6	1.933	23.6
1972	7.672	100.0	12	0.1	1.532	20.0	4.594	59.9	39	0.5	1.496	19.5
1974	7.166	100.0	15	0.2	1.583	22.1	4.315	60.2	53	0.8	1.199	16.7
1976	6.325	100.0	13	0.2	1.646	26.0	3.844	60.8	56	0.9	766	12.1
1978	5.484	100.0	14	0.3	1.770	32.3	3.221	58.7	23	0.4	456	8.3
1980	4.788	100.0	12	0.2	1.847	38.6	2.609	54.5	27	0.6	293	6.1
1982	4.377	100.0	16	0.3	2.044	46.7	2.135	48.8	8	0.2	174	4.0

From: National League for Nursing Data Book 1983-84. New York: National League for Nursing, 1984, p. 92.

pared nurse faculty. When the educational preparation of full-time nurse faculty is viewed from a regional perspective, it is best in the West (more faculty with doctorates and master's degrees and fewer with baccalaureate degrees and below), and worse in the Midwest (Table 35). Schools in the Midwest employ more faculty prepared at the baccalaureate level and fewer prepared at the master's level than those in the other geographic regions. In schools with both baccalaureate and higher degree programs, the percent of full-time nurse faculty assigned to teach exclusively in the baccalaureate program ranged from 52.6 percent in the North Atlantic region to 65.7 percent in the Midwest.[177]

The student-faculty ratios by type of program and geographic region is shown in Table 36. The faculty-student ratios for all programs combined was 1:16.5 for classroom (with S.D. of 9.64) and 1:10.4 for clinical settings (with S.D. of 3.89).[178] Overall ratios tended to be lowest in the diploma programs and highest in associate degree programs. For baccalaureate programs, classroom ratios were lowest in the South; highest in the North Atlantic area and approximately the same in the West and Midwest. The average ratio for the clinical setting for baccalaureate programs was 1:10.15 and was consistent among geographic areas. Ratios were lower in private than public baccalaureate and associate degree programs.

The number of hours per week spent by full-time faculty in direct teaching for all basic nursing education programs combined was four hours per week in the classroom and nineteen hours per week in the clinical setting.[179] As shown in Table 37, diploma progams tended to exceed these averages, associate degree programs were at the average and

Table 35. Full-Time Nurse-Faculty in Reporting RN Programs by Highest Earned Credential and National League for Nursing Region: 1972 to 1982, Biannually

YEAR[1] BY NLN REGION	TOTAL FULL-TIME FACULTY[1] REPORTED		HIGHEST EARNED CREDENTIAL									
			Doctorate		Master's		Baccalaureate		Associate		Diploma	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
North Atlantic												
1972	5,948	100.0	163	2.7	2,816	47.3	2,313	38.9	22	0.4	634	10.7
1974	6,232	100.0	216	3.5	3,205	51.4	2,282	36.6	42	0.7	487	7.8
1976	6,000	100.0	249	4.2	3,420	57.0	1,987	33.1	40	0.6	304	5.0
1978	5,498	100.0	273	5.0	3,508	63.8	1,514	27.5	18	0.3	185	3.4
1980	5,581	100.0	428	7.7	3,806	68.2	1,205	21.6	13	0.2	129	2.3
1982	5,333	100.0	493	9.2	3,798	71.2	953	17.9	8	0.2	81	1.5
Midwestern												
1972	4,961	100.0	106	2.1	2,116	42.7	2,155	43.4	13	0.3	571	11.5
1974	5,693	100.0	176	3.1	2,596	45.6	2,403	42.2	23	0.4	495	8.7
1976	6,146	100.0	231	3.8	3,044	49.5	2,496	40.6	31	0.5	344	5.6
1978	6,245	100.0	295	4.7	3,406	54.5	2,296	36.8	26	0.4	222	3.6
1980	6,048	100.0	351	5.8	3,697	61.1	1,836	30.4	27	0.4	137	2.3
1982	5,979	100.0	428	7.2	3,936	65.8	1,522	25.4	11	0.2	82	1.4
Southern												
1972	3,857	100.0	99	2.6	1,831	47.5	1,601	41.5	27	0.7	299	7.7
1974	4,906	100.0	168	3.4	2,456	50.1	1,948	39.7	40	0.8	294	6.0
1976	5,830	100.0	237	4.1	3,249	55.7	1,093	35.9	46	0.8	205	3.5
1978	5,947	100.0	282	4.7	3,779	63.5	1,724	29.0	28	0.5	134	2.3
1980	6,209	100.0	378	6.1	4,361	70.2	1,364	22.0	18	0.3	88	1.4
1982	6,060	100.0	466	7.7	4,507	74.4	1,030	17.0	11	0.2	46	0.7
Western												
1972	2,028	100.0	77	3.8	1,376	67.9	520	25.6	4	0.2	51	2.5
1974	2,373	100.0	122	5.1	1,728	72.8	477	20.1	13	0.6	33	1.4
1976	2,596	100.0	170	6.5	1,974	76.1	399	15.4	21	0.8	32	1.2
1978	2,527	100.0	212	8.4	1,944	76.8	331	13.2	11	0.4	29	1.2
1980	2,517	100.0	261	10.4	1,962	77.9	282	11.2	3	0.1	9	0.4
1982	2,370	100.0	270	11.4	1,644	77.8	246	10.4	5	0.2	5	0.2

[1]As of January of each year.

From: National League for Nursing Data Book 1983-84. New York: National League for Nursing, 1984, p. 94.

Table 36. Number of Students Per Faculty Member in the Average Nursing Course by Type of Setting, Type of RN Program, Primary Source of Financial Support, and National League for Nursing Region: January, 1981.

RN PROGRAM BY PRIMARY SOURCE OF FINANCIAL SUPPORT	ALL NLN REGIONS			NORTH ATLANTIC			MIDWESTERN			SOUTHERN			WESTERN		
	Number of Programs Reporting	Type of Setting		Number of Programs Reporting	Type of Setting		Number of Programs Reporting	Type of Setting		Number of Programs Reporting	Type of Setting		Number of Programs Reporting	Type of Setting	
		Classroom	Clinical		Classroom	Clinical		Classroom	Clinical		Classroom	Clinical		Classroom	Clinical
All basic RN programs															
Public	763	17.9	10.7	121	20.4	10.6	185	19.1	11.2	315	15.7	10.3	142	19.0	11.4
Private	484	14.4	9.5	176	15.2	9.2	184	13.8	9.4	101	13.6	10.0	23	16.4	9.7
Baccalaureate															
Public	176	18.7	10.5	32	20.2	11.3	39	20.3	11.2	80	16.8	9.6	25	20.4	11.3
Private	170	16.4	9.8	55	21.1	10.2	61	14.5	9.3	41	14.5	10.4	13	14.9	9.2
Associate Degree															
Public	554	18.0	11.0	78	21.9	10.8	141	19.2	11.4	220	15.6	10.7	115	18.7	11.4
Private	71	17.1	10.9	25	18.2	9.7	19	14.9	10.4	21	16.1	12.4	6	22.5	11.8
Diploma															
Public	33	11.5	8.0	11	10.4	6.9	5	9.3	6.8	15	12.2	8.7	2	18.9	11.5
Private	243	12.2	8.8	96	11.7	8.4	104	13.1	9.3	39	11.3	8.3	4	12.3	8.1

From: National League for Nursing Data Book 1983-84. New York: National League for Nursing Nursing, 1984, p. 98.

Table 37. **Hours Per Week of Direct Teaching by the Average Full-Time Faculty Member by Type of Setting, Type of RN Program, Primary Source of Financial Support, and National League for Nursing Region: January, 1981**

RN PROGRAM BY PRIMARY SOURCE OF FINANCIAL SUPPORT	ALL NLN REGIONS			NORTH ATLANTIC			MIDWESTERN			SOUTHERN			WESTERN		
	Number of Programs Reporting	Type of Setting		Number of Programs Reporting	Type of Setting		Number of Programs Reporting	Type of Setting		Number of Programs Reporting	Type of Setting		Number of Programs Reporting	Type of Setting	
		Classroom	Clinical		Classroom	Clinical		Classroom	Clinical		Classroom	Clinical		Classroom	Clinical
All basic RN programs															
Public	763	4 0	18 8	121	3 2	17 9	185	4 0	18 2	315	4 4	19 1	142	3 7	19 5
Private	484	3 9	18 8	176	3 8	18 2	184	3 7	19 2	101	4 7	18 5	23	3 2	21 0
Baccalaureate															
Public	176	3 3	14 6	32	3 3	16 0	39	2 7	13 7	80	4 0	14 9	25	2 6	13 1
Private	170	3 9	16 8	55	4 2	17 2	61	3 7	17 2	41	3 8	14 5	13	3 6	20 0
Associate Degree															
Public	554	4 2	19 9	78	3 0	18 5	141	4 3	19 4	220	4 6	20 3	115	4 0	20 9
Private	71	3 5	19 0	25	2 8	20 3	19	3 3	19 0	21	5 0	16 6	6	2 3	22 4
Diploma															
Public	33	3 8	21 3	11	4 2	19 2	5	4 3	20 5	15	3 5	23 3	2	1 9	19 4
Private	243	4 1	20 2	96	3 9	18 3	104	3 8	20 5	39	5 4	23 8	4	2 9	22 1

From: National League for Nursing Data Book 1983-84. New York: National League for Nursing, 1984, p. 99.

baccalaureate programs tended to fall below the average. Generally, there was slightly more clinical time provided to students in private than public baccalaureate nursing programs. Viewed by geographic region, classroom teaching hours per week for baccalaureate programs were lowest in the Midwest and West (3.2 hours per week). Direct teaching hours were also lower overall for baccalaureate nursing programs located in public rather than private institutions.

Summary

The information presented about the academic preparation of full-time nurse faculty shows that while the number of faculty with doctorates is increasing, these numbers are still small. The vast majority of these persons teach in baccalaureate and higher degree programs. Educational preparation of full-time nurse faculty is best in the West and worse in the Midwest. Graduates whose highest degree is an associate degree are employed in smaller numbers by all types of nursing education programs than those nurses with a diploma as their highest degree, although the employment of both types of nurses in any educational program is very small.

Student-faculty ratios in baccalaureate nursing programs tended to be approximately at the mean for both the classroom and clinical areas. In contrast, the number of hours spent in direct teaching (classroom and clinical) per week by full-time faculty members tended to be lower than the mean in baccalaureate programs, and lower than both diploma and associate degree programs. Private educational institutions with generic baccalaureate nursing programs tended to show more faculty hours spent in direct teaching than public institutions.

RECENT FACTORS IMPACTING ON TRENDS IN NURSING EDUCATION

The debate as to what should be the location (setting) for nursing education programs which was first initiated in 1923 by the Goldmark Report, continues to the present day. As was evident in the previous section on the history of nursing education, rather than resolving this question and having all nursing education take place in one type of educational setting as each new type of eductional program emerged, it was added to the other types already in place. Thus there are now three distinct types of educational programs located in three distinct types of settings (community and junior college; four-year colleges and universities; and hospitals) where basic registered nurse education takes place. Graduates of all three programs are considered qualified to write the same state board examination and upon passing, receive the same license to practice.

To help try to resolve this educational dilemma, the American Nurses' Association in 1965 issued its first definitive statement on nursing education, A Position Paper on Educational Preparation for Nurse Practitioners and Assistants to Nurses. That paper set forth the following:

1. "The education for all those who are licensed to practice nursing should take place in institutions of higher education.

2. Minimum preparation for beginning professional nursing practice at the present time should be baccalaureate education in nursing.

3. Minimum preparation for beginning technical nursing practice at the present time should be associate degree education in nursing.

4. Education for assistants in the health care occupations should be short, intensive pre-service programs in vocational education institutions rather than on-the-job training programs."[180]

While the recommendations from the American Nurses' Assocation were to be in place by 1985, no implementation plan was developed and presented. It was not until 1975 that the American Nurses' Association published Standards for Nursing Education which set forth basic assumptions about the profession's approach to education.[181] The debate on the merits of the American Nurses' Association position on educational preparation for nurses has been widespread over the years and found little initial support outside of the baccalaureate nursing educators. Oppostion from diploma educators and graduates has been consistent.

Not only has there been conflict within the profession over requirements for entry into the practice of nursing, but there have been strong statements from employers both for and against the proposal and general public confusion as to various types and categories of nurses. In 1978 and again in 1984, the American Nurses' Association House of Delegates urged the national organization to take definitive steps and propose legislation to see that the 1965 position was adopted across the states.

In 1985, the American Nurses' Association House of Delegates at its annual business meeting, again addressed the issue of basic educational preparation and adopted the following resolutions:

- "establish the baccalaureate with a major in nursing as the minimum educational requirement for licensure to practice professional nursing;
- retain the legal title "registered nurse" for this person;

- establish the associate degree with a major in nursing as the educational requirement for licensure to practice technical nursing with the provision that such degrees be awarded by state charted institutes of higher education such as community or junior colleges;

- establish "associate nurse" as the legal title for the person licensed to practice technical nursing; and

- assure that the scope of technical nursing practice is congruent with the educational preparation."[182]

These resolutions are now to be discussed and potentially adopted by each of the state nurses' associations and then legislated into action in each state. This will be a long and time-consuming endeavor if it, in fact, occurs.

Thus it becomes clear that the changes seen in the numbers and types of basic nursing education programs over the years have not come primarily from an organized force within the nursing profession. While the American Nurses' Association position papers have helped to focus attention on the issue of educational preparation for nurses, they were not the major factors which caused the decrease in diploma nursing programs or the increases in baccalaureate nursing programs. Those factors were more related to general societal views of higher education as well as present and projected changes in health care delivery trends and financing.

In a publication entitled A Case for Baccalaureate Preparation in Nursing, the American Nurses' Association identified the societal and health related trends which they believed pointed to the need for baccalaureate preparation in nursing as the base in the future (Table 38).[183] Despite a coordinated lack of movement within the profession to resolve the issue of basic educational preparation for nurses, external

forces are making some types of educational preparation for nurses more or less desirable than others.

Table 38. Societal and Health Care Trends Needing Baccalaureate Education for Professional Nursing Practice.

1. Changing and expanding scope of nursing practice
a. Increased older population experiencing more health problems.
b. Increased educational level of population demanding more and better care.
c. Increased access to health care for poor.
d. Increased social problems needing attention (alcoholism, drug addiction, mental illness, etc.)
e. Increased technology in health care.
f. Increased emphasis on primary/out-patient care requiring counseling skills for registered nurse.
g. Increased home care.
h. Increased care given in settings other than hospitals.
2. Changing Societal Orientation
a. Society more college oriented.
b. Increased pressure from consumers, employers, legislators, and third party payors to upgrade nursing educational system to ensure quality.

From: "A Case for Baccalaureate Preparation in Nursing." New York: American Nurses' Association, 1979, pp. 8-14.

The health care delivery system is changing rapidly as more technological advances are made and reimbursement mechanisms change, thus dictating changing locations and practice of care. These changes are requiring nurses of today and tomorrow to deal with more sophisticated

health assistive services and work in more autonomous settings where independent judgements are necessary. Such changes require a nurse with a broad background of scientific knowledge as well as a broad general education to better understand the social and political forces at work.

The changes in third party reimbursement for health care services has also decreased payments to hospitals that previously were used to offset some of the educational expenses associated with having a hospital-based diploma nursing education program. This has caused a gradual increase in the tuition rates that students pay in hospital-based nursing education programs to the point where those costs now equal the costs of many associate degree nursing education programs. Thus a student now faced with making an educational choice between a hospital-based diploma nursing education program or an associate degree program may tend to select the college option as it is usually completed in two years rather than three years for many diploma programs, awards a college degree and is equal or less in costs.

To this point, factors identifed as impacting the trends in nursing education have been predominately positive. There are, however, several factors present now or in the immediate future which may have negative impacts on nursing education trends (Table 39). The decreased enrollments in many colleges and universities is documented in the section on enrollments in higher education and Table 31 shows only slight growth in admissions in baccalaureate nursing progrms. Thus a general decrease in the pool of college students coupled with more job opportunities open now to women may tend to keep enrollments down in many academic-based nursing education programs.

Table 39. Factors Which May Have Negative Impacts on Trends in Nursing Education

1) Stable to decreased enrollments in some institutions of higher education with generic baccalaureate nursing programs.
2) Decreased federal money available for traineeships in nursing.
3) Decreased hospital employment opportunities due to changes in third party reimbursement to hospitals.
4) National studies showing current overall equal supply and demand of registered nurses in the continental United States with internal imbalances as to various types of nurses.
5) Potential decrease in clinical sites for nursing student placement.

Clinical placements for students in nursing education programs has the potential to become a problem very soon for several reasons. New methods used by third party payors to compute reimbursement for health care services provided by clinical facilities (primarily hospitals) is decreasing the payments these agencies are receiving. This decreased payment coupled with the general trend of decreased in-patient admissions and increased costs of all goods and services means that some hospitals are closing units and laying off personnel (including nurses). With fewer patients in hospitals and fewer units in hospitals open, there are less available clinical placement sites for nursing students. Schools of nursing in institutions of higher education are also concerned that due to the increased fiscal pressures that hospitals are experiencing, that they may begin to bill educational programs for nursing students' use of their clinical facilities.[184]

The decreased hospital census, units closing and personnel being laid off also means fewer potential job openings for present and future registered nurses. A 1982 National League for Nursing survey of all registered nurses newly licensed within the preceeding six to eight months revealed that 96 percent of all respondents were employed in nursing and just under two percent were not employed and looking for work. This latter group has gradually grown since 1980. Of those nurses who were unemployed, 17 percent stated the reason was lack of jobs available. Ninety-two percent of those new graduates were employed in hospitals. (The survey was sent to 80,991 nurses with 70 percent responding.)[185]

Other factors that may influence nursing education trends are national studies which now show that there is no longer an overall shortage of nurses in the United States. The Report to the President and Congress on the Status of Health Personnel indicates that by the year 2000, the estimated need for registered nurses will be from 1.6 to 2.3 million with the project supply between 1.6 to 1.8 million. Within this overall balance, there is a projected need for at least 964,800 baccalaureate prepared nurses with a projected supply ranging between 466,000 and 579,000.[186] The extent to which this information will impact enrollments in basic nursing programs depends on whether the shortage of baccalaureate prepared nurses is equally publicized with the overall match in supply and demand of registered nurses.

One other major factor which could have a negative impact on nursing education is a marked decrease in (or elimination of) Nurse Training Act money, thus meaning more nursing students may have to drop out of

programs or attend school part-time while they work. Rationale cited by the Department of Health and Human Services for decreasing these funds in the proposed 1986 budget is that " . . . all major studies of supply and demand for health professionals conclude that virtually all health profession occupations are in excess supply and that supply growth will continue to outstrip demand increases for the remainder of the decade."[187] As this statement clearly shows, not all parts of the Report to the President and Congress on the Status of Health Personnel may be equally emphasized when decisions are made.

Among the twenty-one recommendations for nursing issued in 1981 by the Institute of Medicine in its Study of Nursing and Nursing Education, were eight related to the question of continuing federal support for nursing education. The report stated that while no specific federal support was needed to increase the overall supply of nurses, federal, state and private actions were needed to alleviate particular kinds of shortages and maldistributions of nurses. States have the primary responsibility for analysis and planning of resource allocation for nursing education. To assure a sufficient continued supply of new nursing applicants, the report urged nurse educators and national nursing organizations to adopt recruiting strategies aimed not only at high school graduates, but at non-traditional students. Another recommendation was that all licensed practical nurses who wished to upgrade their education should be able to do so without encountering barriers to admissions. In this vein, policies and programs to minimize loss of time and money should be developed by state education agencies, nursing education programs and employers.[188]

Summary

A number of forces are interacting to bring about change in the types of basic educational preparation for registered nurses. These forces are both inside and outside of the profession. While the various segments of the profession internally debate the merits of different kinds of educational preparation, the societal forces outside of the profession are having more direct impact. Changing patterns of financing and providing health care are making hospital-based diploma nursing education programs less viable options while directly or indirectly favoring baccalaureate preparation for nurses.

Current Approaches to Declining Nursing Enrollments

One major means used to address the problem of declining enrollments in generic baccalaureate nursing programs is the acceptance of the registered nurse student who wishes to obtain a baccalaureate degree in nursing. The registered nurse student has completed a basic nursing program in either a hospital-based diploma program or an associate degree nursing program. This nurse now wishes to return to school to obtain a baccalaureate degree in nursing.

Registered nurse students are being admitted into many current generic baccalaureate nursing programs to keep enrollment levels up to the maximum allowed. In an effort to attract registered nurse students, some generic baccalaureate nursing programs are also establishing off-campus program sites which decrease commuting. Program curricula are also being made more flexible to enable study on a part-time basis, thus enabling the registered nurse student to continue to work part-time as well as maintain family and home obligations.

Registered nurse students are a desirable means of increasing enrollments because they: require less clinical supervision thereby enabling faculty to carry heavier clinical loads of students; and require only advanced nursing courses which do not require basic practice laboratories or equipment. Thus they use fewer resources per student than generic nursing students.

National League for Nursing surveys show that the number of registered nurses graduating from baccalaureate nursing programs rose 11 percent in the 1981-82 academic year. Of the 9,344 registered nurse students graduating with baccalaureate degrees in nursing in 1981-82, 51.4 percent held previous associate degrees and 48.6 percent held diplomas in nursing. In fact, the current number of registered nurses who hold less than a baccalaureate degree in nursing and desire such a degree constitutes such a large market that many educational institutions are designing baccalaureate nursing programs solely for the registered nurse. In 1981-82, 37 percent of the 9,344 graduates were from nursing programs designed totally for the registered nurse and had no generic baccalaureate nursing program.[189]

SUMMARY

This section of literature has provied an overview of the development and present status of nursing education in the United State as well as current and future factors which will impact educational trends. Several issues and trends emerge from this review.

First, formal nursing education is in an early developmental phase with the first hospital-based diploma program being just over a hundred years old, baccalaureate nursing education being sixty years old and

associate degree education only thirty years old. Unfortunately, the development of nursing education is being hindered by the three types of educational programs all culminating in the same title and license. Not only is this difficult to explain to other professional groups and the public, but it segments the nursing profession into three vested interest groups. Recommendations aimed at resolving the basic educational issue have been generated since 1923, but have yet to gain sufficient consensus for acceptance and implementation.

Interestingly, though there are three different types of educational programs which prepare registered nurses, the content of the various types of programs has been more similar then dissimilar. Over the years, the college and university-based nursing education programs developed by adding various amounts and types of science and general education background, and coordinating these with a fixed model of actual nursing content which evolved from the hospital-based diploma programs. It is only in recent decades that major curricular changes have occurred in colleges and universities that have deviated significantly from the original intent and structure of nursing education programs. This lack of significant early curriculum differences and identical titling and licensing of all types of graduates contributed to the present inability of the profession to adequately and clearly differentiate the scope of service and competencies among the graduates of the various programs.

A second problem is that the multiple modes of basic nursing education have given rise to proliferation of these programs across the country. The numbers of programs per state now range from a low of four in Montana to a high of ninety-eight in New York.[190] This means

that there is a duplicaiton of various types of programs in most states, thus making each program more potentially susceptible to decreased enrollment and closure as financial stress increases in the institution housing the program.

Nationwide admissions to baccalaureate nursing education programs have been relatively stable since 1978-79, while the number of schools has been increasing and the number of graduates has been decreasing.[191] There is currently approximate equilibrium of numbers of names on the waiting list for admission to baccalaureate nursing programs and vacancies in programs.[192] This would seem to be a critical time in baccalaureate nursing education to hold the opening or expansion of any generic baccalaureate nursing program lest all programs become increasingly vulnerable to cutback or closure. The specially vulnerable geographic regions facing this situation are the North Atlantic and South.

A third related problem is that basic nursing education programs are costly to the educational institutions in which they are located. Baccalaureate nursing education progams may be even more costly as data show that the hours per week of direct teaching by full-time faculty are lower in baccalaureate nursing programs for both clinical and classroom teaching than for either diploma or associate degree programs.[193] Since only 16 percent of all faculty teaching in baccalaureate nursing programs are doctorally prepared, it is unlikely that the remainder of the faculty hours per week are devoted to research or publication.

To help off-set the decline in enrollments of generic baccalaureate nursing students, recruitment efforts are now being aimed at current registered nurses who do not hold a baccalaureate degree in nursing but

desire to have one. Programs are being designed both on and off campuses to attract the registered nurse student to help fill program vacancies not filled by basic nursing students. This approach is working in most areas as graduations of registered nurse students rose 11 percent in 1981-82. This would seem, however, to be only a temporary solution to a long-range problem.

What emerges then is a picture of generic baccalaureate nursing education which is at a critical period. Continued unrestrained program expansion without prior efforts to ensure increased enrollment, cut program costs, upgrade faculty, and present a unique course of study based on a well defined scope of function and competencies for the graduate, could seem self defeating. The future of generic baccalaureate nursing education will depend on action taken within the coming several years by those persons now in leadership positions in generic baccalaureate nursing programs. To be effective, leadership must consider management strategies that are effective in times of stagnation and potential decline.

ORGANIZATIONAL DECLINE

Overview

The last section of literature to be reviwed focuses on organizationa decline and management strategies suggested for use in decline situations. General information about decline will be presented as well as types and causes of organizational decline, models from which to view organizational decline, and management strategies applicable in various types of organizational decline. This general information about decline will then be applied to higher education.

Decline may be viewed from two perspectives, stagnation and cutback. Decline as stagnation is more of a decrease in the rate of increase rather than an actual decrease. This type of decline is more likely to occur in times of abundance. Decline and cutback occurs in times of scarcity and reflects actual decreases in some aspect(s) of the organization.[194] The focus of this study is on decline as cutback.

Organizational decline is a topic that, until the late 1970s received little research attention. Organizational theories and assumptions were based on growth (i.e., growth is synonymous with effectiveness; size is a desirable organizational characteristic; there is a positive correlation between size and age). Possible reasons for the emphasis on growth is that organizational theories and research accurately reflect current organizational reality as well as broader social ideology.[195]

Until recently, the United States enjoyed unprecedented prosperity since World War II and there was little interest in or opportunity to study decline. The climate was positive and society stressed the value of determination and self-confidence. No impediment was viewed as preventing one from achieving his/her goal. Thus to not achieve a goal was to fail and failure was and is a national taboo. This inability to admit failure increased the likelihood of large-scale failures as management would not drop losing ideas, services, or products or admit to being in trouble.

Emerging trends in organizational theory have focused increased emphasis on several major developments. First, organizations are increasingly viewed as open systems in that they must interact with the environment to secure resources and market outputs.[196] To accomplish

this interaction, boundary spanning functions that link the organization with the environment become very important. The information obtained from the environment and feedback provided after interpretation of the information allows the organization to make ongoing adjustments which balance environmental needs, social norms, regulations and client needs.[197]

Second, organizational administration in an open system is becoming more viewed as a political activity. The focus of this activity is to balance and merge the interest of the internal and external interests groups that form and vie for control of resources to further their own goal(s).

Third, decision-making in organizations is filled with tension between established and new courses of action.[198] The assumption is that decision-makers tend to favor old programs and old solutions to problems to the possible exclusion of new ideas, approaches and programs. As this old approach is perpetuated and decisions as based on precedent, expediency and convenience, the decisions tend to become more political and less rational in terms of outcomes.

When these three trends are viewed together, they represent a shift in approach from that of the closed-rational orientation to the open-political orientation. With this change comes a focus on long-term solutions which addresses the economic and political viability of the organization rather than just a focus on short-term solutions and internal management and allocations.

In the closed-rational approach, alternatives are weighed based on their inherent merits. Resource allocations to various programs are made to meet rationally selected goals as well as on a cost-benefit

basis. Organizational performance is maximized based on the best match between problems and solutions, processes and structures, personnel and positions. Administrators are assumed to have the needed authority to mandate the appropriate actions. Decisions are more analytically sound than politically judicious. The open-political model focuses on balancing trade-offs, manipulating viewpoints, minimizing unintended consequences, selling ideas, building coalitions, and minimizing conflicts.[199] This activity results in decisions that may be more politically judicious than analytically sound and recognizes that administrators do not always have sufficient authority to control all parties and elements involved.

In today's society with the declining environmental conditions affecting a large number of major institutions (industrial complex; higher education; state, federal and local governments), the open-political model is a primary approach used to deal with changing environmental demands. High numbers of old and large organizations are faced with having to reduce their scale of operation or redefine their outputs to continue. In such an era, decline must be addressed and viewed not as failure, but as a condition to manage just as growth was in years past.

When applied to the educational setting, the open-political approach allows the administrator to balance the demands of faculty, parents, legislators, school board members, industry and students. It provides a base for discussion of topics like promotion criteria and tenure in the face of decline. The open-political approach uses present or future scarcity as a means to spur innovation and redesign of the educational institution to match these times.

In a slightly different view of decline and organizations, Zammuto and Cameron believe one could more accurately refer to environmental decline and organizational response rather than to organizational decline.[200] This view of organizational decline is that it is not caused by factors totally within or outside of the organization, but rather by the interaction of both. The approach also is based on an open-systems model and recognizes that the organization and administration cannot control all aspects of any situation.

Research on organizational decline shows that the dynamics associated with decline are unique and are not just the obverse of those associated with growth.[201] Likewise, many structural design options used in organizational growth are not applicable to declining organizations. Decline generally leads to more centralized decision-making as the environment demands rapid response and is often hostile. This centralization carries with it a great potential for information distortion and decreased alternative actions being generated.[202]

As the decline is recognized or increases, the stress of decision-makers also increases which leads to a decreased attention span, cognitive rigidity, shorter time perspective and an increased potential for group think. First responses are usually to increase efficiency by cutting organizational slack through eliminating personnel, selective across-the-board cuts and focusing more on short-term goal attainment. Internal units will compete more for limited resources, turnover becomes a problem, morale and climate worsen and the organization's potential to respond becomes even more impaired.[203]

As the decline worsens, retrenchment is often necessary. This usually occurs when there is an imbalance between the goals of an

organization and the resources it can mobilize to achieve these goals. Organizations more prone to decline regularly continue or present new programs based on their past successes and tend to become desensitized to environmental changes. As a result, the organizations that were most successful in the past may become most vulnerable to future failures.[204]

When faced with a decline situation if retrenchment or cutback is not the option chosen, the alternative may well be to eliminate the organization. Thus retrenchment should be viewed as one means of making an organization smaller, one that does less, but does it well and efficiently.[205]

One difficult part of retrenchment is to convince people within and outside of the affected organization that cutbacks are necessary and that a real and ongoing state of decline exists. Most people do not believe that cutbacks are necessary of if needed, that they can be restored within a year or two. The initial lack of acceptance that decline is occurring and will last many times forces a two stage approach to retrenchment. Initially, there are the short-run solutions of cross-the-board cuts and deferred maintenance. Unless the decline is temporary, however, this short-term approach must change or the organization's physical plant and program vitality will quickly be destroyed.[206]

The second stage of retrenchment focuses on the long range goals of the organization and tries to match them with present and future resource inputs and output demands. This stage requires education of the staff and public not only to the need to cutback, but to the cost of not cutting back.

Once cutbacks are announced, conflict will arise. Each person or unit cut back will dramatize why the cut should not take place and what harm it will bring to all concerned. This phase of cutback management is highly political in nature and requires the formation and support of coalition groups. The cutback must be based on some firm future goals which focus on an end product of a smaller but more stable organization. This stable end point is necessary to ensure future stability and hold or attract qualified staff members. Without firm goals and a view of some end point to the decline and cutbacks, present qualified personnel will leave and new qualified personnel will not join the organization.[207, 208]

Retrenchment erodes the morale of the staff affected. The security of one's job is in question which raises questions of personal security. As various parts of the organization may be targeted for deletion, the sense of worth of the affected people drops. Sacrifice is called for and the extent to which each person can sacrifice will be greatly affected by the shape and stability of the future organization.

Cutback management requires an active and intrusive management style. This does not mean that an authoritarian approach must be used, just that there must be someone firmly in charge who sees that all actions taken support the agreed upon goals and that all key issues are addressed and resolved. Participative decision-making will not be an effective management mode as everyone will want input into a decision, but no one will want to take responsibility for making the cut. Thus management must assume responsibility for making the cuts realizing there will be only grudging acceptance of the act by those who were not cut.[209] Decisions, however difficult, must be made in a timely manner

for as slack resources decrease further, so does the margin for error in decisions made (or not made). Just as the rewards for making good decisions increase, so do the penalties for making bad ones.[210]

Organizational responsiveness to decline is also affected by whether the organization belongs to the public or private sector. Public organizations generally have less market exposure, more environmental constraints, are most subject to political influences, have more complex and contradictory goals, less autonomy, more turnover and greater variation in member characteristics and ability.[211] Therefore, public organizations have a more difficult adjustment to decline than do private organizations.

Given this overview of decline, its ramifications and management as it relates to organizations, it now seems appropriate to present two models of decline. The first model presented, developed by Levine, focuses primarily on causes of organizational decline and identifies categories of facotrs to assess which can contribute to the decline of organizations. The second model, developed by Cameron and Zammuto, classifies decline into various categories and identifies organizational ramifications of each class of decline. Both models present management approaches that may be used to address decline in organizations.

MODELS OF ORGANIZATIONAL DECLINE

Levine's Model of Decline

The model of decline developed by Charles Levine focuses on the causes of decline in public organizations.[212] Little is known about the decline of public organizations and cutback management as all public management strategies are based on the assumptions of continuing enlargement of public revenues and expenditures. This focus on growth

is so pervasive that public officials and managers rarely acknowlege decline and how to address cutbacks. What is known about organizations in decline is that they cannot be cut back by just "reversing the sequence of activity and resource allocation by which their parts were originally assembled."[213] Organizations are social wholes whose parts combine in such intricate ways that to cut back one part may jeopardize the functioning and equilibrium of the whole organization.

Organizational management problems are compounded in times of decline. Just when management planning and use of information systems is needed, these may be some of the first areas cut back. Lack of growth or decline means fewer promotions and rewards and an inability to attract new and younger employees. The latter leaves the organization with older, more expensive and potentially less flexible and less creative employees. This remaining combination can be problematic in that during times of inflation when resources are scarce, staying even actually requires getting more out of the organization without putting in additional resources.[214]

To address decline in public organizations, Levine developed a typology of causes of public organization decline (Table 4). This typology categorizes the causes of decline in two ways: (1) whether they are primarily due to factors internal or external to the organization, and (2) whether they result from political or economic and/or technical factors.

The most familiar external cause of decline in public organizations is <u>problem depletion</u>. This occurs when what was once considered a problem is no longer considered one. Thus, the resources that once flowed to address the problem diminish or cease as do the organizations

that were designed primarily or totally to meet that need. Problem depletion is beyond the control of the affected organization. Major areas to consider under the heading of problem depletion include problem redefinition, policy termination, and demographic shifts. The effects of demographic shifts can best be seen by the closing of neighborhood schools as the school age population decreases or moves from the city to suburban school districts. Problem redefinition is exemplified by the change in treatment approaches for mental illness from institutionalization to deinstitutionalization. Policy termination is becoming more common as the sunset laws now build in automatic review before the reauthorization of public programs.[215]

The other cause of decline which is external to the organization is environmental entropy. This occurs when the environment is no longer able to support the organization at its present level of functioning. This decreased level of support may include market and technology changes (securing more textiles and steel from abroad); transportation changes (decreased rail service); natural resource depletion (closed mines); changing population base (moves from cities to suburbs); and decreased finances (tax reduction proposals which voters approve).[216]

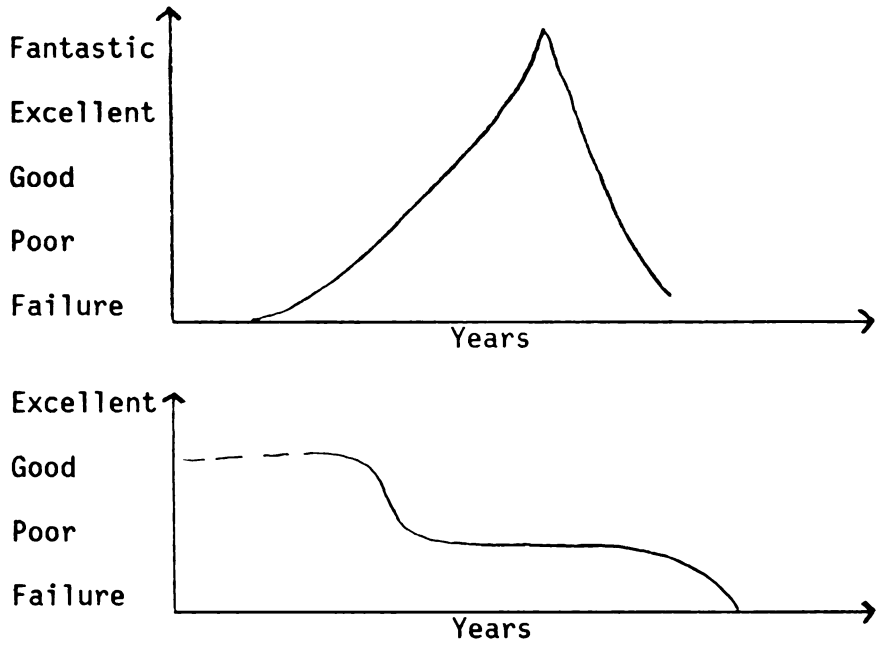
One factor internal to the organization which may cause decline is identified as political vulnerability. This denotes an organization with a high degree of fragility and uncertainty. It is unable to accommodate to decreased inputs. Factors which increase vulnerability include small size, young age, internal conflict, changes in leadership, lack of expertise, lack of a positive self-image, and a limited history of excellence. Of all of these factors, the most significant predictor of vulnerability is age. Younger organizations have developed a

narrowed range of adaptive skills, have fewer friends and allies, and may be less innovative. A bad decision or decreased inputs may not be able to be overcome because of these deficiencies.[217] In 1970, one-third of all bankrupt businessess were less than three years old; 53 percent were less than five years old and only 23 percent were ten years old.[218]

The other factor internal to the organization which can cause decline is organizational atrophy. This atrophy or stagnation or lack of growth can come from any one or a combination of the following; inconsistent and perverse incentives, role confusion, separate or specialized units which are not integrated; decentralized authority with vague responsibility; increased numbers of inappropriate rules; lack of control or supervision; thwarted dissent and upward communications; rationalization of poor performance; little if any self-evaluation and correction; high turnover; continuous reorganization; suspicion of outsiders; or routine adherence to the past in the face of change.[219]

Argenti identified patterns of organizational decline which can come about due to organizational atrophy (Figure 4). One trajectory shows a mercurial rise followed by a precipitous decline because managers overcome with success become careless. Management could not solidify gains, initiate rules and coordinate areas necessary for stability. Another pattern reflects an organization with a long and excellent performance record but one that has lost touch with its market, employees, or customers. This pattern is one of an old established organization like Rolls-Royce or Penn Central which believes that it is invulnerable. Such a view causes a slow and painful decline.[220]

Figure 4. Patterns of Organizational Decline Due to Organizational Atrophy



From: Whetten, D. "Sources, Responses and Effects of Organizational Decline." Organizational Life Cycle. Kimberly, J. (Ed) San Francisco: Jossey-Bass, 1981, p. 357.

In addition to the causes of public organization decline, Levine proposed cutback management tactics to resist and smooth the decline which occurs (Table 40). The tactics proposed by Levine are also divided according to the causes of decline. Those responsible for managing the decline will probably combine resisting and smoothing tactics. This is done because while no organization is anxious to make cuts, to totally resist the decline may mean losing the initiative of deciding when and where the cuts will take place.

The tactics deisgned to address external causes of decline are aimed at "renewing the eroded economic bases, reducing environmental uncertainty, protecting niches, retaining flexibility and lessening dependence.[221] Those tactics which address internal causes of decline are designed to strengthen the organization and managerial control. The

Table 40. Cutback Management Tactics to Smooth and Resist Decline in Public Organizations

	Tactics to Resist Decline	Tactics to Smooth Decline
EXTERNAL Political	(Problem Depletion) 1. Diversify programs, clients and constituents 2. Improve legislative liaison 3. Educate the public about the agency's mission 4. Mobilize dependent clients 5. Become "captured" by a powerful interest group or legislator 6. Threaten to cut vital or popular programs 7. Cut a visible and widespread service a little to demonstrate client dependence	1. Make peace with competing agencies 2. Cut low prestige programs 3. Cut programs to politically weak clients 4. Sell and lend expertise to other agencies 5. Share problems with other agencies
Economic/ Technical	(Environmental Entropy) 1. Find a wider and richer revenue (e.g., metropolitan reorganization) 2. Develop incentives to prevent disinvestment 3. Seek foundation support 4. Lure new public and private sector investment 5. Adopt user charges for services where possible	1. Improve targeting on problems 2. Plan with preservative objectives 3. Cut losses by distinguishing between capital investments and sunk costs 4. Yield concessions to taxpayers and employers to retain them
INTERNAL Political	(Political Vulnerability) 1. Issue symbolic responses like forming study commissions and task forces 2. "Circle the wagons," i.e. develop a seige mentality to retain esprit de corps 3. Strengthen expertise	1. Change leadership at each stage in the decline process 2. Reorganize at each stage 3. Cut programs run by weak subunits 4. Shift programs to another agency 5. Get temporary exemptions from personnel and budgetary regulations which limit discretion
Economic/ Technical	(Organizational Atrophy) 1. Increase hierarchical control 2. Improve productivity 3. Experiment with less costly service delivery systems 4. Automate 5. Stockpile and ration resources	1. Renegotiate long term contracts to regain flexibility 2. Install rational choice techniques like zero-base budgeting and evaluation research 3. Mortgage the future by deferring maintenance and downscaling personnel quality 4. Ask employees to make voluntary sacrifices like taking early retirements and deferring raises 5. Improve forecasting capacity to anticipate further cuts 6. Reassign surplus facilities to other users 7. Sell surplus property, lease back when needed 8. Exploit the exploitable

From: Levine, C. "Organizational Decline and Cutback Management." Public Administration Review. July/August, 1978, p. 321.

idea of changing leadership often during decline is aimed at getting hard, unpopular decisions made by people who have few if any vested interests in various persons or departments and can be objective. After such decisions are made, it may be necessary to change leaders again for the stable or rebuilding organizational phase. The term "exploit the exploitable" means to take advantage of those persons in vulnerable positions for the overall strengthening of the organization. Such actions may include hiring personnel on a part-time or temporary basis, thus decreasing costs and forming no long term commitments. Such personnel action is best done in a buyer's market.[222]

The cutbacks that are made must be based on either equity or efficiency. Equity means that all units are cut equally while efficiency means that selective cuts are made, deeply in some areas with some units even being deleted while expansion may take place in other areas. Making cuts based on a principle of equity is easier for managers as it is more socially acceptable; however, in the long run, it may not be best for the organization.[223]

Levine believes that in the past, declines in public organizations have been met on a "crisis-to-crisis" basis. If declines are temporary or limited to one or several organizations, this approach may be appropriate. If, however, declines occur on a societal scale and long term, there must be a more orderly and widely used approach. Resources must be viewed as finite and problems must be solved on a long-range basis. Through use of Levine's model which views the organization and environment interacting, it is possible to consider a wide variety of factors when projecting actions for decline or growth. The more limited

the resources become, the more necessary it is to considere the external factors identified in Levine's model.

Cameron and Zammuto's Model of Decline

Another model of decline was proposed by Cameron and Zammuto in 1983 which views decline from the organizational and population levels.[224] At the population level, attention is given to various populations of organizations, the forms of decline faced by them and the effects of this on the population dynamics. At the organizational level, the model attempts to explain why various organizations within a population experience decline differently and use a variety of tactics and strategies to deal with the decline.[225]

Two concepts basic to the Cameron and Zammuto model are those of ecological niche and organizational domain. A niche is that portion of the environment occupied by a population of organizations. There are physical, biological, and social conditions which provide both resources and constraints on what the organizational population does. The niche is also partially determined by the willingness of people to purchase the goods or services produced by the population of organizations. Thus the interactions among resources, constraints and demands define the basic or potential niche that could exist for a population of organizations. This does not mean that the organizations are always able to fully realize this potential.[226]

The components of a niche are constantly changing, thus the population of organizations must change to remain viable. Some changes may be controlled by the niche and some may not, just as some changes may lead to growth where others may lead to decline. Changes that may occur

which could lead to decline include decreased demand for goods and services, increased regulation and decreased resources.[227]

Organizational domain refers to the portion of the population niche occupied by each organization. It is defined by the clients served, technology used, and goods or services produced. The sum of all organizational domains is that portion of the potential niche actually occupied, used or realized by all of the organizations in that population.[228] Ideally, the total of all organizational domains for all organizations within a given population would equal that potential population niche. The more the potential niche is realized, the greater the population niche density. The extent to which individual organizations can adapt their domains in response to population niche changes determines whether and how well they will survive.

Depending on environmental factors, a niche may change in either size or shape (Figures 1 and 2). If the niche size increases, either all or some of the present organizations within that niche population must increase their domains or new organizations must emerge to fill the gap. If the niche size decreases, either all or some of the organizations within the niche population must decrease their domains or some organizations must cease to exist. Niche size reductions are generally due to reduced resources, reduced demand or increased constraints. Changes in the size of a niche affects only the quantity of the output, they do not change the basic output.[229]

In contrast, the changes in niche shape mean that the output, in its present form, is no longer accpetable in the environment. Thus a different output must be developed. This new output may be slightly

or totally different from the original depending on the environmental forces. Changes in niche shape are usually due to decreased demand and technological innovations which make the present output obsolete.[230]

While both reductions in size and changes in shape of a niche reduce its potential capacity, a decrease in size may mean that there is limited, if any, potential to regain all of the previous potential niche space. It is also possible that there may be simultaneous changes in both the size and shape of a niche. Such changes would increase the pressure on individual organizations within that population niche to adapt.

Given their development of the concepts of niche size and shape, Cameron and Zammuto then combine these with whether these changes occur in a continuous or discontinuous manner and evolve a typology of environmental decline (Table 1). Continuous change is long term, predictable and consistent with the past while discontinuous change is sudden in nature, unpredictable and represents significant deviation from the past.[231]

Erosion is defined as a continuous decrease in niche size. It includes a gradual but steady decrease in resources and/or need for the output. The outputs are still acceptable in the environment. An example of this type of decline is reflected in decreased birth rates leading to a decreased enrollment in elementary and secondary schools. This type of change is predictable, thus can be planned for in terms of how to handle the decreased level of activity.[232]

In contrast, organizations that experience a sudden decrease in niche size, contraction, are unable to plan for this change. These changes are usually brought about by a sudden and unpredicted decrease

in the demand for the output. An example of contraction is the decreased demand for non-filter cigarettes after widespread information about smoking and cancer.[233]

Changes in niche shape that occur over a period of time are termed dissolution in this model. These changes can be addressed by an organization as the change is occurring, thus enabling an orderly transition from one shape to another. An example of this type of change is the shift in college student enrollments from the humanities and social sciences to the physical and applied life sciences.[234]

When there is a sudden change in niche shape, the niche as presently in existence becomes replaced, totally or almost so, by another. This type of decline is called collapse. To the extent that an organization can survive such a sudden change, it can continue to exist but will remain or grow in some other form or shape. An example of this is the government banning of fluorocarbon propellants and coolants after scientists predicted they would cause great damage to the environment. Organizations making this propellant had to change their product or go out of business.[235]

Within each niche there are both specialist and generalists organizations. The distinction is that specialist organizations focus totally on one or a small number of related outputs while generalist organizations have a greater breadth of outputs. Usually specialist organizations will do better in changes in niche size as they have a higher level of efficiency while generalist organizations will do better in changes in niche shape as they have more diversity and other outputs to rely on when the demand for one decreases.[236]

Decline in any of the cells in Table 1 will stimulate competition among the organizations occupying that niche. The competition among organizations will slowly increase in time of erosion and rapidly increase in times of contraction. If there is not outside intervention, the most efficient organizations will survive a decrease in niche size. When there is a change in niche shape, the competition in times of dissolution will increase as organizations strive to gain an edge in the new market. If there is a collapse of the entire niche, competition is a moot point.[237]

The speed and accuracy with which an organization identifies and responds to environmental changes affect the degree of decline experienced. The greater the misperception of environmental conditions or the slower the response to them, the more pronounced the impact of the change will be. Thus instead of experiencing erosion, an organization may suffer contraction if the earlier signs of decline were ignored or overlooked. Likewise, if the changing shape of a niche is not comprehended, collapse may be the only alternative if other organizations who heeded the signs of change have already acted and established themselves in the emerging niche.

Organizations may respond to conditions of decline by two modes: structural adjustments and strategic responses. Structural adjustments are changes that occur within the organization while strategic responses focus on externally repositioning the organization through doman modification.[238]

Types of structural adjustments include deleting activities, substituting or replacing activities, adding or increasing activities, and reallocating activities. Less dramatic changes are seen when the niche

change is continuous and addressed with adequate lead time. Changes in niche size usually lead to more consolidation and cutback than changes in niche shape. The scope of these adjustments can range from fine tuning to large scale changes (Table 41).[239]

Strategic responses are actions taken to alter an organization's domain and influence the niche within which it operates. These responses may be reactive or proactive depending on when they are implemented. The Cameron and Zammuto model identifies five types of strategic responses. Domain defense focuses on preserving and legitimizing the current domain. These efforts may include actions to change the current environment in which the organization functions. Domain offense strategies increase activity in those areas in which the organization already does well. This may be done through product development strategies (new, improved or differentiated products for present customers); market penetration strategies (present products for more customers); or market development strategies (present products for new customers).

Domain creation activity supplements present domains with new ones through innovation or diversification. Domain consolidation is a reduction in size of the current domain, thus going toward some specialization and deleting all but core activities central to the mission of the organization. Domain substitution refers to replacing one domain with another either totally or in part.[240]

Cameron and Zammuto believe that while an organization may pursue any strategy at any time, that certain ones are most effective under specific conditions of decline (Table 41). The major difference affecting which strategic response is applied is related to whether

Table 41. Structural Adjustments and Strategic Responses Used in Various Types of Delcine

Type of change in Niche Configuration	Continuity of Environmental Change: Continuous Change	Continuity of Environmental Change: Discontinuous Change
Niche Size	**EROSION** STRUCTURAL ADJUSTMENTS - Change by redistribution - Small, incremental changes (fine-tuning) STRATEGIC RESPONSES - Predicted: Domain Offense - Not Predicted: Domain consolidation	**CONTRACTION** STRUCTURAL ADJUSTMENTS - Change by deletion - Substantial across-the-board or selective cutbacks STRATEGIC RESPONSES - Predicted: Domain Defense - Not Predicted: Domain consolidation
Niche Shape	**DISSOLUTION** STRUCTURAL ADJUSTMENTS - Change by addition - Search for new alternatives STRATEGIC RESPONSES - Predicted: Domain defense, then domain creation - Not Predicted: Domain substitution	**COLLAPSE** STRUCTURAL ADJUSTMENTS - Change by substitution - Trial-and-error search for past solutions STRATEGIC RESPONSES - Predicted: Domain creation - Not Predicted: Domain substitution

From: Cameron, K. and Zammuto, R. "Environmental Decline and Organizational Response." Research in Organizational Behavior, (in press), p. 37.

the type of decline being expereinced was predicted or not. The alternative strategies posed in each cell of the model are to be used when the decline was not predicted. Strategies noted may be implemtned concurrently or sequentially.[241]

When erosion is predicted well in advance, domain offense strategies will allow the organization to expand its market base. This approach means that the organization will remain stable or even increase in times of a shrinking niche. When lead time is short and/or events were not predicted, consolidation strategies or reducing all activities peripheral to the core activities are used. The latter approach was used by many colleges and universities in the years when mid-year budget reductions were done.[242]

In periods of dissolution when there is ample lead time, domain defense is first used to ensure the legitimacy of the organization's place in the niche and inhibit the future decline if possible. As the domain defense is being carried out, domain creation strategies begin to develop new areas, thus insuring survival of the organization if the current output becomes totally unacceptable. The problems faced by liberal arts colleges fall into this mode of response. After noting changes in student demands for fields of study, liberal arts colleges engaged in debates and studies about the value of these schools and liberal arts in the overall scheme of higher education. At the same time they were expanding offerings in business, engineering, nursing, continuing education and executive development programs. If an organization is not proactive in periods of dissolution, the only courses left open to them are exit from system or domain substituion. The latter is usually then done on a more or less random basis and

may still not be insured if the market entered is already well established or highly competitive.[243]

In times of contraction which are predicted in advance, domain defense responses allow the organization to preserve its area and legitimacy. If contraction is not predicted, domain consolidation actions are most likely to preserve the core area of the organization.[244]

In times of collapse, organizational change must be rapid and large scale. The structural adjustment that occurs will be substituting the first likely alternative generated as there is not time for further study. The substitution will probably be within the organization's present area of expertise. If collapse is predicted, domain creation can be used which allows some lead time and nurturing of the new domain while maintaining support of the smaller older one. Lack of lead time means an early substitution of a new domain while probably not maintaining the previous one.[245]

Each organization within a niche population will probably respond differently to decline depending on its ability to predict environmental changes and respond in a timely manner. The strengths and weaknesses of each organization as well as those of its leaders will also influence which choice is selected. The management responses to the various types of decline were also studied by Cameron and Zammuto and then superimposed upon their typology of decline. The resulting typology of managerial responses to decline is contained in Table 3. This provides one comprehensive view of the course of conflict and manager-subordinate relations most likely to be seen in each type of

decline coupled with the most effective managerial response for that situation.

When decline occurs, managers are faced with personel pressures as well as those from within the organization. The competence and credibility of the manager her/him may be questioned as various forces become more vocal. Managers will often review past successes to help offset the results of the present problems. Managers become more closed, rigid and self-protective. These actions usually precipitate more discord within the organization, decreased upward communication and lowered morale. Such defensive reactions are more common when the decline is discontinuance in nature, and when it affects niche size rather than shape. Changes in niche shape require more proactivity to lead the organization into new areas.[246]

In times of erosion, there is stagnation or gradual decline of resources. There is increased pressure to decide who will get less, but since there is no severe immediate threat, there is time to consider mutliple alternatives, remain consultive and be proactive. Proactive behaviors are ones which anticipate events and aggressively implement strategies to address them.

Contraction is a sudden reduction in resources where the survival of the organization is in question. This threat produces conflict and autocratic management approaches are needed. There is little time for consultation and participative decision-making. Reactive responses such as across-the-board cuts, conservative and protective ideas are dominate. This is usually designed to protect and conserve the core domain until the environment changes or alternatives can be generated.

In dissolution there is a gradual change from one niche shape to another as the present outputs become less acceptable in the environment. Conflict will arise over what new directions the organization should take and coalitions will form around various alternatives. Enactive tactics are used when new activities are proposed and enacted.[247]

When collapse occurs, there is a rapid decline in the acceptability of outputs and the niche shape must change quickly. This promotes confusion over what the new output should be and invites chaos in relationships. Since time is crucial, alternatives cannot be generated systematically and studied, communications become garbled and turmoil abounds. Experimental tactics are used which are more trial-and-error than actions based on fact and study. The first satisfactory alternative encountered is usually accepted.[248]

This model provides an explanation of how to define and handle decline once it arises. It is not presented as a predictive model to identify when or which type of decline may occur. Once decline has occurred and is accurately classified, the model does provide direction as to management strategies and tactics that are most appropriate for use.

Decline Models Applied to Higher Education

The model of decline presented by Cameron and Zammuto has been applied specifically to enrollment decline and institutional responses in higher education (Table 42). In this context a change in niche size may occur due to a reduction in the supply of potential students, a change in the demand for higher education, or reduced financial aid available. A change in niche shape may occur due to shifts in students' fields of study, such as the decreased demand for the humanities, social sciences

and education, and the concurrent increased demand for engineering, physical and life sciences and business courses.[249] Changes in niche shape may also occur as new areas of study, such as computer science, are introduced, thus reducing the student demand in other areas.

Table 42. A Typology of Environmental Decline and Higher Education Institutional Responses to Enrollment Decline

	Continuity of Environmental Change	
Type of Change in Niche Configuration	Continuous Change	Discontinuous Change
NICHE SIZE	Decline Type: EROSION Example: Major doctoral and comprehensive universities. Response: Minor realignment	Decline Type: CONTRACTION Example: Two-year colleges Response: Reconstruction
NICHE SHAPE	Decline Type: DISSOLUTION Example: General baccalaureate colleges Response: Expansion	Decline Type: COLLAPSE Example: Specialist colleges (e.g., divinity) Response: Experimentation

From: Zammuto, R., Whetten, D. and Cameron, K. "Environmental Change, Enrollment Decline and Institutional Response: Speculations on Retrenchment in Colleges and Universities." Peabody Journal of Education. Winter, 1983, p. 98.

When the changes in niche size are viewed as continuous in nature, the type of decline that occurs is erosion. Awareness of this type of decline is slow in coming and response is of a minimal nature such as making slight internal realignments of resources. A second course of action may be to try and increase the pool of potential applicants

through extension or continuing education programs. If neither action is effective or not taken at all, more rapid and severe readjustments may need to be made to consolidate operations and increase efficiency.

The major types of educational institution affected by erosion are major doctoral and comprehensive universities. These institutions are generalist organizations and have enough breadth in program offerings that small internal readjustments are sufficient to accommodate small steady decreases in enrollments. They are, however, vulnerable to competition for resources by other generalist schools as well as specialty schools.[250]

When changes in niche size are discontinuous in nature, contraction occurs. In this situation, there may be a sudden decrease in enrollments precipitated by such factors as rapidly fluctuating economic conditions or cuts in federal student aid. The type of educational institution that is most likely to notice this type of decline is the two-year college.

Enrollments in two-year colleges decline as economic conditions improve.[251] Two-year schools are more sensitive than four-year institutions because they rely on a more localized market and are heavily dependent on enrollment for tuition and as a formula-funding base. Since two-year institutions are so sensitive to enrollment changes, they are also more willing to take drastic actions to reconstruct educational programs affected. Since two-year colleges are generalists in that they offer a wide variety of programs, they are more easily able to alter the curricula. The two-year schools can also readily expand and contract since they usually employ a high proportion of part-time and temporary

faculty. Many of these schools have also increased their focus on life-long education programming to make up for decreased enrollments.[252]

Changes in niche shape are more threatening than changes in size and are more difficult to address. If the change in shape is slow in coming, administrators may tend to discount the early signs; however, awareness prolonged too long may mean institutional death. The schools most likely to be affected by a slow change in shape, dissolution, are the general baccalaureate colleges. These schools are considered specialist schools in that they offer a smaller range of programs than generalist institutions. Liberal arts colleges are an example of schools in this category.

The strategy used to deal with dissolution is one of expansion. Once the administration recognizes a shift away from the programs offered, new fields of interest must be added to attract students. The addition of these programs must be immediate to capitalize on the new demand. Another strategy to insure survival is for two or more institutions to merge or form a consortium where the best parts of both schools could be used.[253]

If the change in niche shape is immediate, collapse may occur. In this situation, there is confusion and little if any plan as to what possible course of action to follow. The only alternative seemingly open is experimentation. New courses of action are pursued on a trial-and-error basis in hopes that one or more will work. The focus is on short-term survival while long-term alternatives may be sought. The type of institution most affected by this type of decline is the specialist college where only a very limited number and type of programs of study are available.[254]

This application of the Cameron and Zammuto applied to declining enrollment shows that the model can be used to classify decline in various areas and to propose management approaches. The model proposed by Levine can be used to identify present and predict future causes of decline. Both of these models provide some structure from which to project actions. Without such models to guide actions, what has been the response of many administrators in higher education to the conditions of decline which they have encountered? In the following section of literature, past administrative responses to decline in higher education will be identified.

Higher Education's Past Response to Decline

The conditions which favor decline in higher education have been present and increasing since the early 1970s. The major factors have been decreased enrollments, inflation and changes in federal policies which affect higher education. The impact of these factors immediately following the expansion years of the 1950s and 1960s as been significant.

In 1984, Zammuto reported that the death rate for colleges and universities was 117.6 per 10,000 between 1971 and 1981. This rate of institutional death for colleges and universities exceeded that for businesses and federal government bureaus.[255]

A major factor in the increased death rate in educational institutions is a response strategy which seems to be resiliency-inhibiting rather than resiliency-enhancing. This means that institutions have operated in times of prosperity and growth in ways which inhibit effective response as the environment changed and becam less supportive.[256] Several resiliency-inhibiting characteristics are identified in Table 43.

Table 43. Resiliency-Inhibiting Characteristics of Administrators in Institutions of Higher Education

1. Over-expansion in times of abundance.
2. Inadequate management controls.
3. Lack of collaboration and self-protection.
4. Rigidity in problem-solving.
5. Curtailed long-range planning.

From: Cameron, K. and Whetten, D. "Models of the Organizational Life Cycle: Application to Higher Education." The Review of Higher Education. Summer, 1983, pp. 271-273.

Over expansion in times of abundance is common and is prompted in part by past success which management believes puts the organization in a position of dominance. This over-confidence also causes management to ignore early signs of change in consumer preference and technology. Chaffee identified that colleges that had expanded the most in the past decade (built too many dormitories, hired too many faculty, started too many programs) were having the most difficulty adjusting to precipitous drops in revenue.[257]

Periods of rapid expansion may also be associated with looser management controls. Chaffee also found that colleges having the most trouble recovering from declines in enrollment had only crude financial controls.[258] Thus it was not possible for them to know the magnitude of their financial troubles when decline began because past records were inadequate.

In times of abundance and growth, diversification and decentralization is common. However, as resources shrink, each separate unit

then fights for its own survival and there is less potential for a unified response to meet the total organizational need.

Administrators who have led the organization in periods of growth have little experience managing decline. They do not wish to be associated with decline, so they proceed cautiously and take little advice. This self-protective behavior leads to frequent misdiagnosis of the problem and few innovative alternatives being tried. Cameron found that administrators in declining organizations were internally focused, conservative in actions, and reactive in responding to change while administrators in stable and growing organizations were externally oriented, innovative and proactive.[259]

Another common response to any crisis is loss of a long-range perspective as administrators in essence mortgage their future through eliminating planning and development functions in times of decline. Also, among other first cutback responses are: across-the-board cuts which potentially weaken all units; layoffs based on seniority thus causing the newest members with the newest ideas to leave first; and deferred maintenance, thus ensuring future malfuctions and repairs. These short-term savings rather quickly result in future expense and ensure the status quo.[260]

Without an orientation to conditions of decline and how to manage it, administrators define these conditions as ones of resource allocation or problems with efficiency and respond conservatively rather than innovatively. This approach means that after action is taken " . . . educational organizations are basically doing less of the same."[261] Conservative, efficiency-oriented approaches may not be

the best long-range solutions and may lead to ineffective performance and even organizational death.

The focus on efficiency may be the key problem in the conservative approach. Efficiency measures the ratio of some unit of input with some unit of output (i.e., cost per student).[262] To be more efficient is to decrease the unit of inputs per unit of output. This is usually accomplished through internal reallocations. Being more efficient does not mean doing something differently or changing what is done, but doing the same thing while using fewer resources. The scale on which a thing is done may be less but the overall focus and output remains the same.

Whetten identified six reasons why adminstrators in colleges and universities focus on efficiency and respond conservatively rather than innovatively when facing decline.[263] First, what is measured attracts attention and most institutions have in place mechanisms to monitor efficiency rather than effectiveness. Second, stress produced by conditions of decline prompt persons to behave in conservative and self-protective ways. Such activities would include acting to reduce anxiety rather than solving problems by restricting communications, reducing numbers of persons involved in decision-making, enforcing rules more strictly, rejecting information not consistent with what the decision-maker believes, and exhibiting group-think characteristics.[264]

Third, the present problems are viewed through old frameworks, thus old alternative solutions are tried first. In times of growth, resources were always available and the problem was in how to allocate them, thus in times of decline, the problem may also be viewed as one

of resource allocation rather than resource acquistion. In times of growth, there was less need for controls and a laissez-faire approach was common. In times of decline, this approach is highly ineffective and dangerous.

Fourth, colleges and universities are organized as loosely coupled systems which are governed by committees and semi-autonomous subunits. These various groups have multiple vested interests, thus making any type of concensus difficult to achieve. Administrators may then use satisficing approaches to resolve conflicts which do not move the organization ahead. Yarmolinsky calls this inability of any one interest group having sufficient power to effect a change in organizational direction institutional paralysis.[265]

Fifth, competent and innovative leaders are many times the first ones to leave an organization in decline or if they stay, they act in such as way as to not "rock the boat." Not only do the more capable people voluntarily leave the organization early, but the first to be involuntarily terminated are the low-skilled, low-income, minority, very young (new employees) or very old (long term) staff members. All of these actions decrease the internal pool of variability within the organization, thus producing a "regression to the mean" in labor pool qualifications.[266]

Sixth, since innovation itself is sometimes viewed as a cause of decline, administrators may be hesitant to try innovative approaches to manage decline for fear of compounding an already negative situation.

A study reported by Cameron in 1981 surveyed forty institutions of higher education in the Northeastern United States and classified them

on a continuum from declining to rapidly growing. What emerged was a distinct difference between the administrative approaches used in declining institutions and all other groups. Administrators in declining institutions had more standardized structures, relied on previous conservative approaches, perceived the external environment as having limited resources, focused on budget and financing, gave little attention to interacting with constituencies outside of the institution, and did not highly value goals related to improving the academic activities or morale. Administrators in stable and growing institutions focused on just the opposite approaches.[267]

When faced with conditions of decline similar to those now faced by higher education, the tobacco industry responded with a combination of domain defense, offense and creation strategies.[268] Initially, all members of the industry joined together to lobby legislators, donate large sums of money for tobacco and health research and initiate self-imposed advertising controls. Thus somewhat insulated from the hostile environment, they had time to initiate domain offense strategies of expanding their product line and developing new markets. These actions were followed by domain creation activities of diversifying by purchasing new companies, thus broadening their base.[249] In all, they responded aggressively and innovatively by manipulating their external environment.

While there is no one strategy or set of strategies that is generally applicable across all types of decline, there is some evidence that conservative actions are not effective. The information presented in Table 44 identifies factors which may lead to a conservative response and alternatives to the conservative response.

Table 44. Factors Leading to Conservatism as a Response to Decline and Suggested Solutions

Condition Leading to Conservatism	Solution Leading to Effective Coping
1. Little lead time	1. Domain defense is designed to create lead time.
2. Little problem clarity	2. Domain defense creates time to clarify threat.
3. Contrary consensus among constituencies	3. Domain defense is designed to counter consensus and diffuse it.
4. Little domain choice flexibility	4. Domain offense creates expansion within a prescribed domain.
5. Little political slack	5. Domain defense is designed to build political slack.
6. Little severity of threat	6. Domain offense and creation are easier to implement when threat is less severe.
7. Short duration of decline	7. Domain defense helps institutions become buffered from short-term threats.
8. Uncontrollable threats	8. Domain defense is designed to buffer the institution from threats that it cannot control.
9. No economic slack	9. Domain offense creates slack.
10. No previous administrator experience	10. Domain defense buys time to determine the best offense and long-term adaptation strategies.
11. Norms of equal distribution	11. Domain offense and creation help necessitate prioritizing and make resources availabe so across-the-board cuts are less likely.
12. One resource base	12. Domain offense and creation make available multiple resource bases
13. Administrators are viewed as allocators	13. Domain offense and creation produce conditions where administrators become resource generators.
14. Absence of strategic competence	14. Domain defense helps identify strategic competence and domain offense helps expand it.
15. Large size and complexity	15. Domain defense helps buffer the institution from multiple, conflicting demands.

From: Cameron, K. "Strategic Responses to Conditions of Decline: Higher Education and the Private Sector." Journal of Higher Education. July/August, 1983, p. 376.

The first eight factors listed are external to the organization. Contrary concensus among constituents is the extent to which important groups outside of the organization agree on a position detrimental to the organization. Domain choice flexibility refers to an organization's freedom to add or substitute domain activity rather than having it dictated. Political slack is the amount of loyalty of powerful constituents to an organization. Uncontrollable threats are those threats to the organization that arise outside of the immediate environment of the organization and are, therefore, less able to be controlled by it.[270] In each of these first eight situations, conservative actions are most likely to be taken first. Since all of these factors can lead to the potential for decline, conservative actions may not be sufficient to stop or reverse the events and thus stop the decline from progressing. Since these factors do not come totally, or even partially in some cases, under the immediate control of the organization any action that is taken may be only partially effective.

Items nine through fifteen in Table 44 are factors that occur within the organization and are able to be more and immediately impacted by actions taken by persons within the organization. Economic slack is the amount of savings and uncommitted resources plus the diversity of sources from which resources are secured. The administrative experience of the person in charge may be limited in general, or specifically in that decline has not had to be addressed. Also related to the administration is whether that position is viewed within the organization as one which allocates rather than secures resources. Past and present equal distribution of resources across subunits leads to across-the-board cuts and other conservative actions. Larger and more complex institutions have

more vested interested groups that pressure for their own survival, thus making selective cutback decisions difficult. Likewise, the more all units are dependent on the same soruce for resources, the more competitive they are and the more administrators may try to satisfy them all. The internal competence of an organization greatly impacts the extent to which it proacts or reacts. Proactive strategies include innovations in domain activities rather than just reacting or defending a past activity.[271]

Conservative and efficiency oriented strategies should never be completely overlooked; however, they are best combined with more aggressive and externally focused strategies that also consider effectiveness. Domain defense strategies generate support for the institution among legitimizers and buy time to plan and secure the resources for domain offense strategies. During this planning time, the institution becomes somewhat buffered from the environmental threats. Domain defense strategies include activating alumni and Board of Trustee members, forming lobbying groups, and forming consortia.[272]

Domain offense strategies can be initiated concurrently with or immediately following the domain defense actions. These strategies are designed to expand the present institutional activities and broaden institutional appeal to more persons and groups. Such actions often serve to increase organizational slack. Examples of domain offense activities include expanding current markets and applying or adapting current resources to non-traditional students while expanding the base or sources of funds and increasing public relations.[273]

Domain creation strategies focus on entering into new markets or programs. The focus here is to create new opportunities for success in

areas of the environment which will support such ventures. Activities falling into this category include offering new programs in high demand areas, acquiring subsidiaries, capital investments, or public service activities. Domain creation strategies should not be be tried before domain defense activities have been undertaken to increase institutional slack and legitimacy.[274]

SUMMARY

The information presented in this chapter has been focused on three distinct areas which were interrelated in this study. The first section focused on higher education, the second on nursing education, and the third on decline.

The section on higher education provided an overview of factors contributing to the present state of no growth and in some instances, decline in institutions of higher education. Information was provided as to how these problems developed and projections were made for the future in terms of enrollments. Specific areas addressed were past over-expansion, enrollments, faculty, student mix, financing and the growing disproportion between public and private and generalist and specialist institutions. Given the problems faced by higher education, information was then presented as to administrative actions that have been taken to address these problems. Special emphasis was placed on program down-sizing and discontinuance.

The second section focused on specific aspects of generic baccalaureate nursing education. To put this type of educational program in focus, a brief history of the development of various types of nursing education was initially provided. This was followed by a more detailed

description of selected aspects of generic baccalaureate nursing programs including enrollment trends, student-faculty ratios, faculty workload, faculty preparation, program costs, and selected means used to address enrollment declines. The intention of this section was to show that generic baccalaureate nursing education is currently in a no-growth state which, if not immediately and aggressively addressed, can turn into a decline.

In the third section of the chapter literature related to decline was reviewed. General information was presented about the effects and management of decline. In addition, two specific models of decline were described in detail as to types, causes, effects and management. The information on decline was presented for two reasons. First to provide a theoretical base from which to compare how the decline in higher education has been handled to this point and to what extent the past management strategies prevented, reversed or contributed to the decline. The second reason was to provide information as to how to assess for the potential of decline and implement the appropriate actions necessary to prevent or reverse the decline should it occur.

When the three areas of higher education, nursing education and decline are then viewed together, the following picture emerges. Higher education in general is now in a state of decline which the literature shows was predictable and which in fact was predicted in some studies. The predictions were not heeded in a timely manner by many college presidents, thus the decline came and many institutions were not prepared to deal with it. The untimely and conservative manner in which the decline in higher education was addressed actually made it worse and contributed to further deterioration and crises in many institutions. It was not

until the early 1980s in many instances that the decline in higher education began to be addressed in a positive, long-range, proactive manner.

While the decline in higher education in general was occurring, generic baccalaureate nursing education was approaching a no-growth state which was unrecognized and not addressed in the nursing literature. Growth, filled classes, and large waiting lists for admission had been the norm in generic baccalaureate nursing programs and any signs that this may change went mostly unheeded. The end result was that at the time institutions of higher education were ready to address decline at the institutional level, generic baccalaureate nursing programs were ready targets for review and possible downsizing and discontinuance as they had begun to deplete their backlogged waiting lists and were beginning to experience some of the same problems that the parent institution had been experiencing for several years. Thus the low enrollment, high cost generic baccalaureate nursing programs were and are extremely vulnerable.

The literature on decline provides information about types of decline, factors to assess to determine one's potential for decline, and a range of management activities to implement to address pending or present decline. This study specifically relates this information about decline to generic baccalaureate nursing programs and provides a framework that can be used to assess the program's potential for decline. After the assessment is made, the chief executive officer of that generic baccalaureate nursing program can then select from the range of appropriate mangement tactics and adapt them to that particular program. In

this way, decline in generic baccalaureate nursing programs should be able to be predicted and avoided or if not avoided, at least dealt with in a sound constructive manner.

CHAPTER II

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CHAPTER III

DESIGN OF THE STUDY

Problem Statement

This study is designed to survey and describe the impact of the present and immediate past period of decline in higher education on selected generic baccalaureate nursing programs located in institutions of higher education in the continental United States. Specifically, the study seeks information to address the following:

1. To determine if a significant number of chief executive officers of generic baccalaureate nursing programs identify their programs as being in or having the potential to experience decline.

2. To determine the type of decline chief executive officers identify as currently affecting their generic baccalaureate nursing programs.

3. To determine the type of decline chief executive officers identify as potentially affecting their generic baccalaureate nursing programs within the coming five years.

4. To determine whether chief executive officers of generic baccalaureate nursing programs assess a significant number of environmental factors outside of the larger academic institution when making future plans and developing management approaches.

5. To determine whether chief executive officers of generic baccalaureate nursing programs assess a significant number of environmental factors within the larger academic institution when making future plans and developing management approaches.

6. To determine which of a given number and type of management strategies are most used by chief executive officers in generic baccalaureate nursing programs in the administration of their units.

7. To determine the number of generic baccalaureate nursing programs that have been proposed for or actually experienced program downsizing or discontinuance.

8. To determine if there are differences in the scores of internal and external environmental factors assessed by chief executive officers in generic baccalaureate nursing programs that are and are not being proposed for or actually experiencing downsizing or discontinuance.

9. To determine if there are differences in the management tactics and strategies used by chief executive officers in generic baccalaureate nursing programs that are and are not being proposed for or actually experiencing program downsizing or discontinuance.

Design

The purpose of the study was to describe the current impact of the decline in institutions of higher education on generic baccalaureate nursing programs and what actions administrators of those programs were taking to meet this decline. In addition, information was also sought regarding these adminstrators' views of the potential for and type of future decline faced by their generic baccalaureate nursing programs. Data as to the number and type of generic baccalaureate nursing programs that had ever been proposed for downsizing and/or deletion in the past five years were also requested. Thus the study was designed to obtain information with which to describe the current status of generic baccalaureate nursing programs relative to several areas of decline and the management of these programs. From this base of data, future areas of study could be identified. No hypotheses were generated or tested in this study.

The most appropriate design for a study to achieve the purposes identified was that of survey research. Survey research is used to determine or describe what exists and how it exists in any given

population.[1,2] Information so obtained may, but does not necessarily, identify or explain relationships, test hypotheses or make predictions.[3]

Survey research data collection tools are used to obtain the standardized information needed. The most common means used to obtain the needed data are the personal or telephone interview, mailed questionnaire and examination of records.[4] The major advantages and disadvantages of these first three means of collecting data are noted in Table 45. In view of the amount of information desired, and the size, homogeneity, and geographic distribution of the population to be be surveyed, the mailed questionnaire was selected as the most appropriate data collection tool for this study.

Population

The population to be included in this study was the chief executive officer from each National League for Nursing accredited generic baccalaureate nursing program in the continental United States. This population was identified by using the latest National League for Nursing publication containing such information at the date the study was conducted.[5]

It was decided to include the entire population rather than a sample in the study for several reasons: (1) the total population was small in size numbering only 345; (2) stratification of a sample of the population would be necessary to address some of the variables being studied and the information needed to accomplish this stratification was not readily available or easily obtainable.

The chief executive officer was chosen as the respondent within each generic baccalaureate nursing program because only that person would

Table 45. Comparisons of Face-to-Face Interviews, Telephone Interviews and Mail Questionnaires for Selected Performance Characteristics

Performance Characteristics	Face-to-Face Interviews	Mail Questionnaires	Telephone Interviews
I. Obtaining a Representative Sample			
A. Known opportunity for all members to be included in the sample.			
1. Complete listed populations.	High	High	High
2. Populations which are not completely listed (e.g., household occupants).	High	Medium	Medium
B. Control over selection of respondents within sampling units.	High	Medium	High
C. Likelihood that selected respondents will be located.	Medium	High	High
D. Insensitivity to substitution of respondents and households.	Medium	Low	Low
E. Response rates.			
1. Heterogeneous samples (e.g., general public).	High	Medium	High
2. Homogeneous, specialized samples (e.g., agency directors, ministers, students).	High	High	High
F. Likelihood that unknown bias from refusals will be avoided.	High	Low	High
II. Questionnaire Construction and Question Design.			
A. Allowable length of questionnaire.	High	Medium	Medium
B. Type of question.			
1. Allowable complexity.	High	Medium	Low
2. Success with open-ended questions.	High	Low	High
3. Success with screen questions.	High	Medium	High
4. Success with controlling sequence.	High	Low	High
5. Success with tedious or boring questions.	High	Low	Medium
C. Success in avoiding item non-response.	High	Medium	High
D. Insensitivity to questionnaire construction procedures.	High	Low	Medium
III. Obtaining Accurate Answers			
A. Likelihood that social desirability bias can be avoided.	Low	High	Medium
B. Likelihood that interviewer distortion and subversion can be avoided.	Low	High	Medium
C. Likelihood that contamination by others can be avoided.	Medium	Medium	High
D. Likelihood that counsultation will be obtained when needed.	Medium	Medium	Low
IV. Administrative Requirements			
A. Likelihood that personnel requirements can be met.	Low	High	High
B. Potential speed of implementation.	Low	Low	High
C. Keeping costs low.			
1. Overall potential for low per interview costs.	Low	High	Medium
2. Insensitivity of costs to increasing geographical dispersion.	Low	High	Medium

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have the macropersepctive required for some responses, the overall responsibility for decisions, and that person either directly manages or sets the administrative tone for responses requested in other questions.

Instrument

The data collection instrument used in this study was a questionnaire which was distributed by mail (Appendix B). The questionnaire was twelve pages long, front and back, contained 96 questions, and was divided into eight main sections (Table 46). The major sections of the questionnaire were developed to reflect either a central area of focus of the study (Sections I, VI, VII), operationalize a major concept covered in the literature (Sections II, III, IV, V), or collect personal data about the respondent (Section VIII).

Table 46. Major Sections of Questionnaire with Inclusive Question Numbers

Section No.	Section Title	Question Numbers
I	Types of Decline	1, 2
II	Political Vulnerability	3-31
III	Problem Depletion	32-42
IV	Environmental Entropy	43-56
V	Organizational Atrophy	57-77
VI	Program Downsizing	78-87
VII	Program Discontinuance	88-91
VIII	Personal Data	92-96

Section I contained descriptions of the four types of decline identified by Cameron and Zammuto and contained in their model of decline (Table 1). The two questions combined in this section sought the opinion of the respondents as to whether the generic baccalaureate nursing programs they administered were currently experiencing decline and, if so, the type. Also sought was the type of decline they anticipated within the coming five years.

Sections II through V contained questions reflective of the four types of causes of decline as identified in the Levine model of causes of decline (Table 4) and responses to decline as identified in the Cameron and Zammuto model of decline (Table 3). Questions contained in each Section II through V were subdivided as to those addressing the causes of decline and those addressing administrative modes of action that could be taken to address the decline. Section II contained items which fell within the category of political vulnerability; items in Section III related to problem depletion; environmental entropy was the focus of Section IV; and organizational atrophy was the area addressed in Section V.

Questions relating to the causes of decline for Sections II through V of the questionnaire were derived from the items in Table 9, which is a composite of: (1) the general factors contributing to decline as identified by Levine and then applied specifically to higher education; (2) these same general factors applied specifically to generic baccalaureate nursing education; and (3) the most common criteria used to review academic programs for possible downsizing and discontinuance classified according to Levine's model.

The questions developed were based on readings from the three major areas in the study: decline, higher education, and generic baccalaureate nursing education. Depending on the information needed, questions were posed in either the past, present, or future tense. In instances where information about trends was needed, the same question may have been asked in more than one tense. The information sought was a combination of fact and opinion.

In addition to identifying present and future causes of decline in their generic baccalaureate nursing programs, the chief executive officers of these programs were also asked to identify their actual or hypothetical responses to conditions of decline. The potential range of responses studied were those identified in the Cameron and Zammuto typology of decline (Table 3). Given the four types of responses described in this model, questions reflective of each mode of response were developed and placed immediately following selected questions in Section II through V. Not all response modes were included in the choices for each question, but all modes were included in each major section of the questionnaire.

Sections VI and VII contained questions specifically addressing program downsizing and program discontinuance. These approaches are currently being used by some administrators in institutions of higher education to address problems of decreased enrollments and increased costs. Program downsizing and discontinuance were selected for more in-depth study because there is virtually no systematic data available as to the extent to which generic baccalaureate nursing programs have been downsized or discontinued. Section VI dealt with program downsizing

and contained questions as to who proposed the downsizing, the nature of the downsizing proposed, whether the proposed downsizing did occur and if so, the nature of the downsizing. Section VII asked only if the generic baccalaureate nursing program had been proposed for discontinued and actually discontinued.

Section VIII was designed to obtain limited personal information about the respondent. This would enable a limited profile of all respondents to be made as well as provide a base for comparing respondent profiles for various subsets of questions.

Responses to those questions in Section II-V, which addressed the causes of decline, were assigned weights of one or two. The purpose of the weighting was to be able to determine a score for each section, as well as an overall score for all four sections. The score would reflect each generic baccalaureate nursing program's potential for decline based on factors contained in Levine's typology of causes of decline.

Scoring

Weights of one or two were selected rather than a more extensive or zero-based weighting system for several reasons. First, in some areas, there is gross information presented as to which factors make an institution more or less vulnerable, but fine distinctions in each area are not identified. For example, Levine states that young age and small size make an institution more politically vulnerable, but young and small are not defined.[6] Fadil and Thrift noted that the decline rate of institutions of higher education with an enrollment below 1,000 was greater than those with a larger enrollment.[7] Whetten indicated that the decline in institutions aged five years or less was greater than those for institutions older than five years.[8] While these figures do

provide some distinctions, they are of a gross nature and not continuous along a range of options.

Second, certain factors are noted to increase the potential for decline (i.e.: type of control of institution and geographic area).[9,10,11] Thus while privately controlled institutions have had a greater incidence of decline and enrollment figures show greater potentials for decline in the North Atlantic and Midwestern regions of the country, this is not to say that public institutions and those located in the South and West will experience no decline, or a specific percentage of decline below the other institutions. For this reason, one may then assume that while certain circumstances make some types of institutions more vulnerable to decline than others, there is some degree of vulnerability for all institutions, but this cannot be specifically quantified. Likewise, while certain environmental factors such as fewer college aged students, local, state and federal tax cuts, changing areas of student study, and certain organizational factors such as outmoded teaching approaches, weak leadership and lack of a relevant curriculum may increase an institution's potential for decline, that is not to say that all institutions are not affected by some or all of these factors to a certain extent. Thus it was felt that only gross distinctions in weighting could be made.

Since the conditions that favor decline are present to a greater or lesser extent for all institutions of higher education and the generic baccalaureate nursing programs located in them, it was thought to be appropriate to give some points to all programs in the weighting of items. Thus the factors that were identified as contributing to the conditions of decline, though minimally or generally, were given a

weight of one while those factors identified as having a more direct or specific impact were given a weight of two. When it was possible to make substantiated distinctions from the literature between which weight an item should have, this was done, otherwise arbitrary decisions were made based on inferences derived from the literature.

Using the two point weighting scale described, ranges were established for each Section II through V of the questionnaire (Table 47). The lower the section and total scores, the fewer factors present that would be potential causes of decline; the higher the score, the more factors present or potentially negatively impacting that generic baccalaureate nursing program. This would be true for each individual section (II through V) as well as the total score for each program. It would, however, be important to note individual section scores as the overall score may be at the low end of the range while one section is higher with the others being low. Thus an overall sense of security could be offset by noting one particular area which needs attention.

Pilot Test

The pilot test of the questionnaire was administered in February, 1985 to 31 nurses who held similar positions to those persons in the target population. All were chief executive officers of generic baccalaureate nursing programs located in the continental United States. The major difference between the pilot sample and the population to be included in the study was that the pilot programs were not accredited by the National League for Nursing. The breakdown of institutions included in the pilot study by type of control and geographic region is contained in Table 48. A list of states included in each geographic region is contained in Appendix A.

Table 47. Range of Scores for Each Section II through V of the Questionnaire

SECTION	SCORE RANGE & MIDPOINT	INDICATIONS
II - Political Vulnerability	36 - 72 54	Low - Fewer areas of political vulnerability present High - More areas of political vulnerability present
III - Problem Depletion	10 - 20 15	Low - Less awareness of impact of societal definitions of factors affecting program/ organization High - More awareness of impact of societal definitions of factors affecting program/ organization
IV - Environmental Entropy	43 - 94 68.5	Low - Present environment supportive; organization recognizes environmental factors High - Present environment not supportive; organization does not recognize environmental factors
V - Organizational Atrophy	44 - 88 66	Low - Administrative environment supportive/progressive High - Adminsitrative environment not supportive/progressive
II- V Total Score	133 - 274 203.5	Low - Some potential for decline High - Great potential for decline

Table 48. Numbers of Persons Included in the Pilot Study Sample by Type of Institutional Control and Geographic Region

	GEOGRAPHIC REGION				
Type of Institutional Control	North Atlantic (N=7)	Midwest (N=8)	South (N=12)	West (N=4)	Total (N=31)
Private	4	6	2	2	14
Public	3	2	10	2	17

The purposes of the pilot test were to determine: the clarity of the instructions and questions, face validity, appropriateness of the length of the questionnaire, and the amount of time required to complete the questionnaire.

A breakdown of the number of responses to the pilot study is noted in Table 49. Information obtained from the pilot study revealed that that instructions for completion were clear. Several questions were identified as being confusing or unclear in wording or structure of the response options and these were changed. Several questions were also reordered for better flow of thought. The respondents indicated that the questionnaire was too long. In response to this criticism, several questions were deleted and the format of the questionnaire was changed. This latter change resulted in a decrease in the length of the questionnaire by five pages.

Initially, the questionnaire was developed along the guidelines and format of the total design method developed and described by Dillman.[12] One aspect of this approach calls for introducing each new line of inquiry on a new page of a questionnaire.[13] Thus in the pilot

questionnaire, each new section was started on a new page. This approach consumed more pages. In the study questionnaire, each new line of questioning was started following a small space on the page and a bold line partially across the page. The next section heading was then placed in capital letters and the new line of questioning begun. This change in format accounted for the greatest reduction in total pages between the pilot and actual study questionnaires.

Table 49. Number of Responses to Pilot Study by Type of Institutional Control and Geographic Region

	GEOGRAPHIC REGION				
Type of Institutional Control	North Atlantic (N=7)	Midwest (N=8)	South (N=12)	West (N=4)	Total (N=31)
Private (N=14)	2 (50%)	4 (66.6%)	1 (50%)	1 (50%)	8 (57%)
Public (N=17)	2 (66.6%)	1 (50%)	5 (50%)	2 (100%)	10 (58.8%)
Total (N=31)	4 (57%)	5 (62.5%)	6 (50%)	3 (75%)	18 (58%)

The respondents indicated that completion of the questionnaire took approximately 35 minutes with the range of time taken falling between 20 and 60 minutes. This was determined to be an acceptable length of time given the nature of the study and the type of information being sought. It was recognized that both the number of pages in the revised questionnaire and the length of the time needed to respond to the questions could decrease the response rate.

Responses to the questions asked covered the range of options provided, thus indicating to the writer that all questions and response options had face validity. Content validity was not checked as the researcher believed that there were few colleagues available who were knowledgeable in the causes and management of decline. This may be an overall weakness in the study design. Scoring on the pilot study seemed to be appropriate in that a range of scores were obtained.

Review of the responses did reveal that the majority of the programs included in the pilot study were not accredited by the National League for Nursing because they were new programs that were not yet eligible for accreditation. Since most of the programs were new, the responses to some questions relative to decline and future plans were skewed in that the sample was not reflective of a range of program ages and programs were in a growth state.

The data collection procedure used in the pilot study differed slightly from that used in the actual study. Pilot study participants did receive a postcard the week before the study indicating that they would be receiving a questionnaire the following week and a postcard was mailed one week after the questionnaire reminding them to return the survey form. A second follow-up letter and questionnaire were not mailed to non-respondents two weeks after the first questionnaire was mailed.

Data Collection

The study questionnaires were mailed to 345 chief executive officers of National League for Nursing accredited generic baccalaureate nursing programs located in the continental United States. The mailings took

place in April of 1985. Names and addresses of the chief executive officers and programs were obtained from the latest National League for Nursing publication available at the time of the survey.[14] Those receiving the survey constituted the entire population of this group.

The typed questionniare was reproduced on white legal-sized paper, folded in the middle and assembled as a booklet. The booklet cover was light blue. Each questionnaire was coded by number to determine who had responded so follow-up reminders could be mailed to non-respondents.

One week before the questionnaire was to be mailed, a postcard was sent to all persons included in the study (Appendix C). This postcard alerted the receiver that the following week he/she would be receiving a questionniare and provided a very brief description of the focus of the study. Each postcard was hand signed after reproduction. The following week, the questionnaire, a cover letter, and a stamped, self-addressed envelope were mailed first class to all persons in the study population. The typed cover letter was reproduced on white Michigan State University College of Education, Department of Administration and Curriculum letterhead and hand signed after reproduction (Appendix D). The letter provided a more detailed description of the study, its value on both a long and short range basis, information about confidentiality and non-participation in the study, and a date for return of the questionnaire.

One week after the questionnaire was mailed, a second postcard was sent to all persons in the study population (Appendix E). Each postcard was hand signed after reproduction. The purposes of this postcard were to thank those persons who had completed and returned the survey questionnaire and to remind those who had not yet responded to do so.

Two weeks after the second postcard was mailed, each non-respondent was mailed first class, a second questionnaire, a cover letter and a stamped, self-addressed envelope. Each typed cover letter accompanying this questionnaire was also reproduced on white Michigan State University College of Education, Department of Administration and Curriculum letterhead and hand signed (Appendix F). This letter provided much the same information as the first one and included a stronger request for the non-respondent to complete and return the questionnaire.

All mailings were posted on Tuesdays as this was the preferable mailing day identified by Dillman.[15] Mailing on Tuesday avoids the backlog of mail from the weekend handled on Monday and allows out-of-state respondents time to receive and process the mail before the weekend.

Analysis of Data

Information from the returned questionnaires was transferred to optical scan sheets and then to the computer. Data were verified after transfer to the computer, but prior to any analysis. Descriptive statistics were used as the main information to be obtained from this study was a summary and description of certain present management practices as well as present enrollment and instructional trends and projections for the future. Descriptive statistics are a means of describing, summarizing or reducing to comprehensivle form certain aspects of a large mass of data.[16]

Numeric scores were also derived for Sections II-VI (by section and for all sections combined) for each respondent's program. The four individual scores and total score were used as indicators of decline.

The means of scores were included as part of the data which was summarized and described. Various sections and subsections were also cross compared and described. A factor analysis of questions in Sections II-V was done.

Factors Impacting Results

Several extraneous confounding factors need to be identified which may have impacted the results of the study. First, there is always the potential of self-selection bias in those persons who return mailed questionnaires. This threatens the validity of the survey in that those persons who choose to respond may not be representative of the sample or population.[17]

Second, secular drift or relatively long-term trends in the country may effect responses.[18] In this study, the long-term trends that may have affected the responses are a national level decreased college age student cohort, thus leading to decreased college enrollments; increased inflation; increased numbers of colleges and universities in financial and enrollment troubles; and a decreased national need for generalist nurses. Since these factors have now been present from 3 to 10 years, knowledge of them and responses to them have potentially been incorporated into the daily action of many chief executive officers of generic baccalaureate nursing programs.

Third, interferring events which are short term occurrences may effect responses.[19] Thus a recent precipitous decline in enrollment or budget reduction in an institution may bring about a different set of responses than if that event had not just occurred.

Fourth, unreliability or the degree to which identical responses would be obtained if the data were collected again from the same subjects may be a problem. Sources of unreliability include the information gathering instrument, the response situation, and the respondent's mood at the time responding.[20] For this study, the questionnaire was newly developed and thus was possibly unreliable. A number of respondents indicated that they received four to seven questionnaires per week, thus there was a potential for the respondent to feel pressure for time or overburdened when completing the questionnaire. Several respondents did indicate that the length of the questionnaire caused them concern when completing it and one respondent identified that she was completing the questionnaire at home after midnight when faced with a busy following day.

Summary

This descriptive study was accomplished through the use of a mailed questionnaire distributed to the entire population of potential respondents. This approach was deemed both economical and realistic in meeting the purposes of the study. The information obtained from the study will proivde chief executive officers of generic baccalaureate nursing programs with immediate and long-range facts about decline as it affects higher education in general and their nursing program in particular. It will provide information on the current management practices used to address decline so these or alternatives may be considered for broader application. The study will also provide current factual information as to the number and type of generic baccalaureate nursing programs that have been proposed for and actually experienced downsizing and

discontinuance. This information should serve as a base for further inquiry or proposed actions in the areas explored by this study.

Also tested in this study is an instrument which, when refined, could serve as one means of assessing a generic baccalaureate nursing program, of if adapted, any academic program or department wishing to determine its potential for being proposed for program downsizing or discontinuance, as well as its potential for decline.

CHAPTER III

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CHAPTER IV

ANALYSIS OF DATA

INTRODUCTION

The results of the questionnaire mailed to chief executive officers of National League for Nursing accredited generic baccalaureate nursing programs located in the continental United States regarding their perceptions of decline in higher education, how this decline is impacting their programs, and management approaches they are employing to address the decline are presented in this chapter. The chapter will be divided into various sections, each of which focuses on a particular portion of the data collected. Information will also be presented about the response rate to the questionnaire as well as some information about non-respondents and non-participants.

Section I relates to the present and future types of decline that the respondent identified as impacting on his/her generic baccalaureate nursing program. Cross-tabulation of the types of decline and selected questions in Sections II-V will also be presented.

Sections II-V relate to the typology of causes of decline described by Levine. Responses to individual questions presented in each section will be presented as will the mean scores for each section. Section II relates to political vulnerability; Section III to problem depletion; Section IV to environmental entropy; and Section V to organizational

atrophy. Information will also be presented in each section as to the type of management approach being used as contained in the Cameron and Zammuto model of decline.[1]

In Section VI information as to the number of generic baccalaureate nursing programs that have been proposed for and actually experienced program downsizing is presented. Some information as to the nature of the downsizing is also presented. Program discontinuance is addressed in Section VII. Data in both of these sections are cross referenced with selected items from Sections II-V. Section VIII presents personal data about the respondents which has also been selectively cross tabulated with other areas. Section IX contains the results of the factor analysis of selected items from Section II-V. Section X has incidental findings. Each section will be summarized and an overall summary will be presented at the conclusion of this chapter. The frequency count for all questions included in the questionnaire is contained in Appendix B.

RESPONSE RATE TO QUESTIONNAIRE

Questionnaires were mailed to chief executive officers in 345 National League for Nursing accredited generic baccalaureate nursing programs located throughout the continental United States. For the purpose of grouping respones, the National League for Nursing geographic regions were used (Appendix A). The numbers of questionnaires mailed and responses returned, by National League for Nursing geographic region are presented in Table 50.

The overall return rate for this study was 67 percent which is considered good given the data collection approach used and the length of the questionnaire. This study used a modified total design approach in

that the series of follow-ups described was not implemented. The questionnaire was twelve pages, two-sided in length and contained ninety-six items which required 193 separate responses. Fifty-four percent of the returns were usable and 11 percent of the respondents indicated they did not wish to participate in the study.

Dillman reports that the average response rate for forty-eight surveys which used his total design method was 74 percent with no survey receiving less than a 50 percent response. When the total design method was used only in part, the average response rate was 71 percent.[2] Dillman also noted that questionnaires of more than twelve pages or 125 items received an average response rate of only 65 percent.[3] The information presented by Dillman regarding questionnaire length is not clear as to whether the pages were one or two sided and whether all responses were usable.

Table 50. Response Rates by National League for Nursing Geographic Region for Questionnaires Mailed (Percents have been rounded)

Questionnaires	NLN GEOGRAPHIC REGION				
	I North Atlantic	II Midwest	III South	IV West	Totals
Total Mailed	89	100	116	40	345
Total Returned	55 (62%)	75 (75%)	72 (62%)	29 (73%)	231 (67%)
Usable Returns	41 (46%)	67 (67%)	52 (45%)	25 (63%)	185 (54%)
Non-usable Returns	2 (2%)	1 (1%)	1 (1%)	2 (5%)	6 (2%)
Not Participate	12 (13%)	4 (4%)	19 (16%)	2 (5%)	37 (11%)
Returned Too Late To Use	-	3 (3%)	-	-	3 (1%)
Not Returned	34 (38%)	25 (25%)	44 (38%)	11 (28%)	117 (34%)

Baumgartner and Heberlein reported that salience had a major impact on response. Surveys judged highly salient to the respondent had a

response rate of 77 percent; those possibly salient a response rate of 66 percent; and those not salient a 42 percent response rate.[4] For this study, it is possible that the length of questionnaire offset the salience or that, in fact, a number of respondents felt the topic had only possible salience to them.

The breakdown of when the responses were received in relation to the number of various mailings is detailed in Table 51. It is evident that the final rate of return was greatly impacted by the follow-up mailings. Dillman reports that from 19-27 percent of the questionnaires are returned prior to the first follow-up mailing. Following the first postcard reminder, 15 to 25 percent more responses are added.[5] Baumgartner and Heberlein identified that each contact with the respondent increased the response rate by 7.4 percent.[6] For this study, counting the postcard sent to all participants the week before the questionnaire was mailed, there was a total of 3 contacts with all participants who responded to the initial questionnaire and 4 contacts to those who did not respond to the first questionnaire.

In this study, 51 percent of the total responses received came before the first postcard follow-up, 24 percent were received after the first follow-up postcard, and 25 percent were received after the second questionnaire and cover letter were mailed. The highest period of return was from the fourth through the tenth day following the mailing of the first questionnaire. The highest number of responses received on any one day was on the sixth day following the mailing of the first questionnaire.

In Table 50 the response distribution shows an equal return of responses from each geographic regions with the North Atlantic and South

having almost identical rates as did the Midwest and West. Thus the data obtained should be representative across all geographic regions.

Table 51. Number of Questionnaires Returned by Time of Follow-up

NLN Region	TIME OF RESPONSE			
	After First Questionnaire Before Follow-Up	After First Follow-Up	After Second Questionnaire	Total Returned
North Atlantic	26	17	12	(N = 89) 55 (62%)
Midwest	39	17	19	(N = 100) 75 (75%)
South	37	13	22	(N = 116) 72 (62%)
West	16	8	5	(N = 40) 29 (73%)
Totals	118 (51%)	55 (24%)	58 (25%)	(N = 345) 231 (67%)

PROFILE OF NON-PARTICIPANTS

Those generic baccalaureate nursing programs represented by chief executive officers who did not participate in the study have been grouped into two categories: non-participants - those who returned their questionnaires and indicated that they did not wish to participate in the study; and non-respondents - those who did not respond to either questionnaire. A comparison of selected characteristics of respondents, non-respondents and non-participants is presented in Table 52. Since

limited information was available about those programs not participating in the study, the areas for comparison are few and limited to public information.

Type of institutional control was consistent among all groups. By age of the generic baccalaureate nursing program, more non-responding programs were aged 10 years or less and more non-participating programs were aged 40 years and older. By full-time equivalent enrollment in the first level nursing course in 1983, respondents represented programs of 200 or more students more than the other groups, while non-respondents represented programs with enrollments of 49 or fewer students. Non-participant programs had more students in the 100-149 enrollment size.

By age of the nursing program, respondents and non-respondents were closely aligned except for those programs aged ten years and less. By enrollment in the first level nursing course there was mixed agreement between respondents and the other two groups. The numbers, which are not consistent among the three groups, do not vary so widely that information obtained from the respondents could not be generalized to all groups.

SECTION I

TYPES OF DECLINE

The current and future types of decline the respondents saw as affecting their generic baccalaureate nursing programs are contained in Table 53. Erosion is the most frequently identified type of decline that is affecting and will affect the respondents' programs. Erosion is the gradual reduction of resources needed to support the current (or past) level of output. It implies that the product itself is acceptable in

Table 52. Comparison of Respondents, Non-respondents and Non-participants on Selected Items by Percent of Respondents

Item	Respondents (Usable)	Non-Respondents	Non-Participants
Institutional Control			
Public	53%	52%	59%
Private	47%	48%	41%
Age of Nursing Program			
10 years or less	12%	20%	11%
11-19 years	35%	34%	30%
20-29 years	21%	18%	14%
30-39 years	15%	15%	19%
40-49 years	8%	6%	11%
50 years or more	8%	7%	16%
Full-Time Equivalent Enrollment in First Level Nursing Course 1983			
0-49	20%	41%	19%
50-99	35%	34%	35%
100-149	20%	14%	38%
150-199	10%	8%	3%
200-249	5%	2%	0%
250 or more	7%	2%	3%
National League for Nursing Geographic Region			
North Atlantic	46%	38%	13%
Midwest	67%	28%	4%
South	45%	38%	16%
West	63%	28%	5%

the environment only not in as great a quantity. These respondents believe that the generic baccalaureate nursing graduate will continue to be needed in and supported by the environment only not in the present quantity and that the resources available to support this activity will continue to gradually decrease.

Table 53. Present and Future Types of Decline Affecting Generic Baccalaureate Nursing Programs

Type of Decline	Presently Affecting Program N=185	Affecting Program Within Next Five Years N=185
Erosion	59 (32%)	76 (41%)
Contraction	26 (14%)	24 (13%)
Dissolution	5 (3%)	13 (7%)
Collapse	1 (1%)	1 (1%)
No Decline	86 (46%)	61 (33%)

It is interesting to note the number of respondents who identified contraction, or the sudden reduction in resources needed to produce the output, as the type of decline they expect to experience. This means that 13 percent of the respondents anticipate a sudden withdrawal or decrease in resources within the next five years.

A small but increasing number of respondents predict dissolution as a coming type of decline to be addressed. Dissolution is the gradual change in niche shape when the current output becomes progressively less acceptable in the environment and there is pressure to change the output.

Of interest is the decreasing number of programs indicating that they will experience no delcine within the next five years. This re-enforces the fact that the conditions of decline are present and, so these respondents believe, will continue with us for at least the next five years.

The cross tabulation of present and future types of decline by National League for Nursing geographic region is shown in Table 54. All regions are and expect to continue experiencing erosion. Respondents form the North Atlantic region expect the greatest increase in erosion while those in the West and South project the least. Those in the West also show the lowest current and future levels of contraction with the South showing the highest future rates. All regions project a small increase in dissolution or that the product (generic baccalaureate nursing graduate) will become progressively less acceptable in the environment. Increases in dissolution are highest in the Midwest. The Midwest and North Atlantic regions project the greatest future potential for most types of decline while the Western and Southern regions project the smallest.

Table 54. Present and Future Types of Decline by National League for Nursing Geographic Region.

TYPE OF DECLINE	NORTH ATLANTIC		MIDWEST		SOUTH		WEST	
	Present N=39	Future N=39	Present N=63	Future N=61	Present N=50	Future N=50	Present N=25	Future N=25
EROSION	28%	49%	32%	41%	34%	36%	44%	56%
CONTRACTION	15%	10%	16%	16%	16%	20%	8%	0%
DISSOLUTION	0%	3%	3.2%	12%	4%	6%	4%	8%
NO DECLINE	54%	39%	49%	30%	46%	38%	44%	36%

When decline is viewed from the perspective of type of institutional control, generic baccalaureate nursing programs located in public institutions indicate less present and future decline than those located in private institutions (Table 55). Presently, only 39% of the generic baccalaureate nursing programs located in private institutions of higher education are not experiencing some type of decline and this percent is predicted to decrease to 25% within the coming five years. This is in sharp contrast to the 44 percent of public institutions that do not predict any type of decline. Ten percent of the generic baccalaureate nursing programs located in private institutions also project dissolution as the type of decline projected within the coming five years. This is twice the percent predicted by public institutions. Programs located in private institutions also see a consistently higher potential for contraction, or the sudden decrease in resources, than those in public institutions.

Table 55. Present and Future Types of Decline by Type of Institutional Control.

TYPE OF DECLINE	PUBLIC		PRIVATE	
	Present N=95	Future N=94	Present N=82	Future N=81
EROSION	29%	39%	39%	48%
CONTRACTION	12%	11%	18%	17%
DISSOLUTION	3%	5%	2%	10%
COLLAPSE	0%	1%	1%	0%
NO DECLINE	57%	44%	39%	25%

Eighty percent of all of the educational institutions in which the generic baccalaureate nursing progams where located were aged 50 years and

older. The type of present and future decline cross tabulated with the age of the generic baccalaureate nursing program is shown in Table 56. Increased numbers of generic baccalaureate nursing programs of all ages indicated that they expected to experience some type of decline within the coming five years. Of the programs currently experiencing and expecting no decline within the next five years, the greatest changes were noted in the age ranges of 10 years and below and 40 years and older. Those nursing programs aged 10 years and under also indicated the most significant increase in dissolution within five years. Nursing programs aged 11 to 39 years seemed more stable in terms of the type or amount of decline predicted compared with other age ranges with the exception of the high percentage of future types of decline in the dissolution column for programs aged 10 years and less.

Table 56. Present and Future Type of Decline by Age of Generic Baccalaureate Nursing Program

TYPE OF DECLINE	AGE OF GENERIC BACCALAUREATE NURSING PROGRAM											
	50 years +		40-49 yrs		30-39 yrs		20-29 yrs		11-19 yrs		10 yrs -	
	Now	5yrs	Now	5yrs	Now	5yrs	Now	5yrs	Now	5yrs	Now	5yrs
EROSION	29%	54%	4%	50%	39%	50%	34%	36%	32%	45%	29%	30%
CONTRACTION	8%	15%	14%	0%	25%	18%	16%	18%	11%	10%	14%	20%
DISSOLUTION	8%	8%	0%	8%	4%	7%	3%	5%	3%	5%	0%	20%
COLLAPSE	0%	0%	0%	0%	0%	0%	3%	3%	0%	0%	0%	0%
NO DECLINE	46%	23%	64%	42%	32%	25%	45%	39%	53%	40%	57%	30%
TOTALS	7%	8%	8%	7%	16%	16%	22%	22%	35%	36%	12%	12%

Tables 57 and 58 contain the cross tabulation of type of decline with size of the institution and size of the generic baccalaureate nursing program. Forty-three percent of all generic baccalaureate nursing

Table 57. Present and Future Types of Decline by Full-Time Equivalent Student Enrollment in the Institution

TYPE OF DECLINE	FULL-TIME EQUIVALENT STUDENT ENROLLMENT IN INSTITUTION											
	25,000 +		20,001-25,000		15,001-20,000		10,001-15,000		5,000-10,000		5,000 or less	
	Now N=22	5 years N=21	Now N=12	5 years N=11	Now N=12	5 years N=12	Now N=25	5 years N=25	Now N=30	5 years N=30	Now N=76	5 years N=76
EROSION	27%	29%	42%	82%	42%	58%	16%	36%	27%	27%	41%	45%
CONTRACTION	0%	10%	17%	0%	25%	25%	16%	12%	20%	10%	15%	17%
DISSOLUTION	9%	5%	0%	0%	8%	0%	0%	0%	0%	13%	3%	11%
COLLAPSE	0%	0%	0%	0%	0%	0%	0%	4%	0%	0%	1%	0%
NO DECLINE	64%	57%	42%	18%	25%	17%	68%	48%	53%	40%	41%	28%
TOTALS	12%	12%	9%	6%	7%	7%	14%	14%	17%	17%	43%	43%

Table 58. Present and Future Type of Decline by Full-Time Equivalent Student Enrollment in First Level Nursing Course

TYPE OF DECLINE	FULL-TIME EQUIVALENT STUDENT ENROLLMENT - NURSING											
	250 +		200 - 249		150 - 199		100 - 149		50 - 99		0 - 49	
	Now N=13	5 yrs N-12	Now N=11	5yrs N=11	Now N=17	5yrs N=17	Now N=34	5 yrs N=33	Now N=57	5 yrs N=57	Now N=39	5 yrs N=39
EROSION	23%	42%	18%	36%	29%	41%	29%	42%	37%	47%	39%	39%
CONTRACTION	0%	17%	18%	9%	29%	12%	15%	12%	9%	5%	21%	28%
DISSOLUTION	8%	0%	9%	18%	0%	6%	0%	6%	2%	11%	3%	5%
COLLAPSE	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	3%	0%
NO DECLINE	69%	42%	55%	36%	41%	41%	56%	39%	53%	35%	36%	28%
TOTALS	8%	7%	6%	7%	10%	10%	20%	20%	33%	34%	23%	23%

programs were located in institutions with a full-time equivalent enrollment of 5,000 students or less. The size of the educational institution, by full time equivalent enrollment, that appeared to be most severly affected by decline now and in the coming five years was that with 10,001-15,000 or 20,001-25,000 students. The institutions with an enrollment over 25,000 students seemed to experience the least present and future decline. Those institutions with an enrollment below 5,000 did not express as high a potential for decline as the other groups.

Those programs with an enrollment of 250 or more in the first level nursing course showed the least present and future potential for decline, while those with an enrollment of 50-99 seemed to have a greater potential for future decline (Table 58). Programs with an enrollment of 49 or fewer students appeared the most susceptable to contraction, or the sudden withdrawal of resources.

SUMMARY

The major type of decline currently affecting generic baccalaureate nursing programs is erosion or the steady and gradual reduction of resources. Respondents expect erosion to increase over its present level and also to be the major type of decline affecting them over the coming five years. A smaller but steady number of respondents also see contraction, or the rapid decrease of resources, as a present and continuing type of decline with which to deal. Both of these types of decline are decreases in niche size thus implying that the present output is acceptable in the environment only in a lesser quantity.

A small but increasing number of respondents indicated that dissolution was a type of decline that would have to be addressed within the

coming five years. Dissolution is a change in niche shape which means that the current output is no longer acceptable in society. Thus for the producer to continue to be viable, a new or revised output must be developed.

The percent of respondents indicating that no decline was present and that they expected no decline within the coming five years decreased from 46 to 33 percent. Thus at present 54 percent of the respondents were experiencing some decline and this was projected to increase to 67 percent within the next five years.

Cross tabulations of decline by various characteristics revealed that the most vulnerable geographic areas for decline in generic baccalaureate nursing programs were the North Atlantic and Midwest regions. Programs located in private institutions were experiencing and expected to continue experiencing significantly more decline of all types than those located in public institutions.

By age of the generic baccalaureate nursing program, those aged 10 years and less and 40 years and older seemed to indicate the greatest potential for decline within the next five years. The programs aged 11 to 39 years reflected the highest degree of stability in terms of less change predicted from their current state in the coming five years. Programs aged 10 years and less reflected the greatest potential for future dissolution. By size of institution, as reflected by full time equivalent student enrollment, those least affected by decline had more than 25,000 students and those most affected had an enrollment between 10,001 to 15,000, and 20,001 to 25,000. By size of the enrollment in the first level nursing course, the programs most affected by decline had 50-99 students and those least affected had 250 or more students. Nursing

programs with an enrollment of 49 or fewer students were most susceptible to contraction.

Overall, all programs are experiencing erosion as the major type of decline. Contraction was expressed as a concern by a small but consistent number of all respondents. Dissolution was a small but notable concern for generic baccalaureate nursing programs aged 10 years or less and located in private institutions in the Midwest and having a first year nursing enrollment of 50-99 students. Private institutions indicated more decline of all types than public institutions.

SECTION II

POLITICAL VULNERABILITY

Overview

Political vulnerability is an organization's internal fragility and uncertainty. Some factors increasing political vulnerability include small size, young age, internal conflict, changes in leadership, lack of experience, lack of a positive self-image, and a limited history of excellence. The most significant of all of these factors is age. Young organizations or units have fewer adaptive skills, fewer friends and allies and may be less innovative.[7]

Questions included in this section of the questionnaire were derived from the material on political vulnerability as described in Levine's typology of causes of decline (See Table 4). Using this model as a guide, factors contributing to problems or decline in higher education and generic baccalaureate nursing programs that met the description of political vulnerability were listed in Tables 5 and 6. Into this cell of the typology were also added those criteria which met the

description of political vulnerability used to review academic programs for possible discontinuance (See Table 8). All of these items were then combined into Table 9 and questions were generated to secure information from each respondent about each item included in the composite list. Numbers of the questions contained in this section are contained in Table 11.

Responses to Individual Questions

The majority of respondents came from an academic institution under public control, aged 50 years and above, with a full-time equivalent enrollment of less than 5,000 students. The generic baccalaureate nursing program located in that institution was 11 to 19 years old with a full-time equivalent student enrollment in the first level nursing courses of 50-99 students. The attrition rate at the end of the first year of nursing courses for 26 to 28 percent of the respondents was 3 to 5 percent. This is lower than the institutional attrition rate. On the other hand 13 to 17 percent of all respondents indicated they had an attrition rate of 12 percent or more at the end of the first year nursing courses. Twenty-four percent of the respondents did not know the institutional attrition rate, therefore, could not indicate if the rate for their program fell above or below the institutional rate.

Only 54 percent of the respondents indicated that they admitted the maximum number of students to the first level nursing courses that they were allowed to admit. At the same time, 44 percent of the respondents indicated that their recruitment efforts have remained unchanged while 22 percent indicated increased recruitment of traditional college aged students. Thirty-two percent of the respondents indicated that

they were refocusing their recruitment efforts from the traditional aged college student to older and non-traditional students.

The current faculty-student ratio for classroom instruction was 1:35 or above for 37 percent of the respondents. Twenty percent of the respondents in this study did indicate a classroom faculty-student ratio of 1:15 or below. Seventy percent of all respondents indicated that their current classroom ratios were statisfactory while 19 percent stated they should be higher and 10 percent indicated that they should be lower.

The faculty-student ratio for clinical instruction was almost equally divided between those indicating a ratio of 1:8 or less (44 percent) and those with a ratio of 1:10 (38 percent). Seventy percent of the respondents indicated that they believed that their current ratios were appropriate and planned no future change.

One way of increasing enrollment in selected nursing courses is by opening them to non-nursing majors. Respondents were asked what percentage of their nursing courses were open to non-nursing majors and how many non-nursing students actually enrolled in these courses on an annual basis. One to five percent of the nursing courses were open to non-nursing majors in 54 percent of the respondent's programs and no courses were open in 32 percent. Sixty-four percent of the respondents indicated that less than 20 non-nursing students per year enrolled in any open nursing courses.

Another area explored was program costs. While forty-nine percent of the respondents indicated that they were aware of almost all of the data used to compute the cost per student or credit hour, 62 percent of the respondents replied that they did not have the total cost figures readily available. Despite this lack of specific information being

available, 44 percent of the respondents indicated that their generic baccalaureate nursing program had a higher cost per graduate or student credit hour than other professional programs in their institution. Forty-three percent of the chief executive officers replied that their cost per student or credit hour was as low as it could get while 28 percent stated that it could be lower but they had no specific plans to lower the cost. Only 22 percent of the respondents indicated that the cost could be lower and they had initiated plans to do so.

When asked the degree of faculty involvement in committees and governance systems outside of the nursing department, 59 percent of the respondents indicated that over a quarter of their faculty served on inter-departmental committees, while 34 percent responded that over a quarter are represented on institution-wide committees. In 33 percent of the institutions, 5 percent or less of the faculty in the generic baccalaureate nursing programs serve in the institutional governance system and in 20 percent of the institutions that number is from 6 to 10 percent. Thus, representation of the nursing faculty outside of the nursing unit decreases as the membership or level of the committee broadens.

Relatedness of the generic baccalaureate nursing program to the institutional mission was another area assessed. Ninety-four percent of the respondents indicated that the institutional mission supported or strongly supported baccalaureate level professional education while 6 percent indicated that this subject was not addressed in the mission statement. Ninety-three percent of the respondents stated that the mission supported or strongly supported research and scholarly activity with 6 percent indicating that this topic was not addressed. Public

and community service was supported or strongly supported in 95 percent of the mission statements and not addressed in 4 percent. Ninety-seven percent of the respondents believed that their generic baccalaureate nursing programs reflected the institutional mission while 2 percent believed that their programs did not.

Scoring

The questionnaire contained 22 questions which assessed political vulnerability (See Table 11). According to the scoring system developed, a low score indicated that a unit was less vulnerable while a high score indicated more vulnerability. The range and mean for the scores of respondents is presented in Table 59. The mean score for respondents in the political vulnerability cell fell just below the midpoint in the possible range. Thus overall respondents' programs should not be considered highly politically vulnerable in terms of their potential for decline. The range of respondent's scores also tended to be almost equidistant from both ends of the scale.

TABLE 59. Scores of Respondents for Each Cell of Levine's Typology of Decline.

CAUSE OF DECLINE	POSSIBLE RANGE	RESPONDENT'S RANGE	RANGE MIDPOINT	RESPONDENT'S MEAN
Political Vulnerability	36 - 72	42 - 63	54	52
Problem Depletion	10 - 20	10 - 20	15	13.12
Environmental Entropy	43 - 94	61 - 87	68.5	74
Organizational Atrophy	44 - 88	56 - 83	66	65

Management Tactics

Eight questions contained in this section provided management responses to selected questions which assessed various areas of political vulnerability (Table 12). These management tactics were identified by Cameron and Zammuto and are contained in their model of decline (See Table 3). Table 60 contains the rank order of management tactics selected by respondents. As is clear from the table, the reactive approach was most often selected in the area of political vulnerability. The second most used management tactic was the experimental one which is described as random responses undertaken on a trial and error basis with no overall objective in mind. Enactive tactics reflect the actual implementation of activities to address a specific problem and were the third most used approach although this was selected much less frequently than the reactive or experimental approaches. The proactive approach of anticipating an event and having a plan ready to implement was the option used least often.

Thus it would seem that for the major items contained in this section (costs and enrollments) the management approaches most frequently used are to wait until a problem is present and then react, often experimentally in terms of finding a solution or resolving the issue. Little before the fact action seems to be taken.

Summary

In summarizing the section on political vulnerability, several factors become evident. First, the items considered in this section can readily be divided into those that can and those that cannot be controlled by the chief executive officer of the generic baccalaureate nursing program. Items outside of that control are the geographic region

in which the program is located, the age and size of the institution in which the nursing program is located, and the age of the nursing program. All other items can be partially or totally controlled by the nursing program's chief executive officer.

Table 60. Rank Order of Management Tactics Selected by Respondents in Each Category of Possible Causes of Decline

Management Tactic	Political Vulnerability	Problem Depletion	Environmental Entropy	Organizational Atrophy
REACTIVE (defend status quo, rationalize inactivity)	1	2	3	2
PROACTIVE (have identified problem and have specific plan ready to implement)	4	4	2	4
ENACTIVE (have implemented a specific plan)	3	3	1	1
EXPERIMENTAL (know something should be done, don't know what)	2	1	4	3

Second, enrollment in the generic baccalaureate nursing programs emerged as a major problem area in that only 54 percent of the respondents indicated that they admitted the maximum number of students to the first level nursing courses that they were allowed to admit. Sixty-six percent of the respondents indicated that they were continuing to focus recruitment efforts on the traditional college age student.

A third area that emerged was cost of the generic baccalaureate nursing program. Forty-five percent of the respondents indicated that their

programs had a higher unit cost than most other professional programs in their institution. Sixty-two percent of the respondents indicated that they did not have annual cost data for their programs readily available. Forty-three percent of the respondents indicated that their unit cost was as low as they believed it could get even though only 49 percent stated that they were aware of almost all of the costs figured in this cost data.

The major component of any unit's cost is salary for faculty and staff. While 37 percent of the respondents indicated a faculty-student classroom ratio of 1:35 or more, 20 percent had a ratio of 1:15 or below. Faculty-student ratios for clinical instruction were 1:8 or less for 44 percent of the respondents. Seventy percent of all respondents indicated that their current faculty-student ratios were appropriate.

A fourth but lesser area of concern that emerged was the participation of nursing faculty on committees outside of their unit. As the committees broadened in scope of membership, smaller numbers of nursing programs had faculty represented.

The vast majority of respondents did indicate that their institutional mission statements were supportive of baccalaureate level professional education and that they had a low attrition rate.

The mean scores for this section were just below the midpoint in the range of possible scores. This would indicate that overall this is not an area that would be a major cause for concern, yet it is clear that the information obtained on costs and enrollments is not positive or even neutral. In the next chapter this discrepancy between scores and finding must be explored.

The management tactics most often used to address items in this section were reactive and experimental. This means in both cases that

the problem arose before it was identified or before a plan to address it was developed. The responses used were to become reactive and defend the present domain after the problem arose or to randomly select course of action to address a current problem.

SECTION III

PROBLEM DEPLETION

Overview

Problem depletion occurs when support for an organization or program decreases or disappears because the need or issue addressed has been resolved or changed. Thus as changing societal or health care issues and problems impact on higher education and generic baccalaureate nursing education, so must the products of these programs change to remain viable. Definition of and support for problems arises outside of the institution and can only be impacted by it to a small extent. The administrator's responsibility is to monitor and forecast these changes and adjust the institution and programs accordingly.

The ten questions contained in this section were derived from the items listed in the problem depletion section of Table 9. Table 9 is a composite of items contained in Tables 5, 6 and 8 which identify reasons why higher education and generic baccalaureate nursing programs are facing problems as well as the most common criteria used to identify academic programs for possible discontinuance. These items are all organized around the causes of decline as described by Levine (Table 4). Numbers of the questions included in this section are contained in Table 11.

Responses to Individual Questions

Five questions were selected which reflect areas that have impacted or may impact enrollments in generic baccalaureate nursing programs. The central focus of these questions is that to the extent that the need for or status of generic baccalaureate nursing graduates is negatively impacted by these issues, enrollment, as well as societal and financial support could decrease. The questions were posed in the present and future tenses. Responses are contained in Tables 61 and 62.

Table 61. Extent to Which Respondents Believed Each Item is Impacting Current Enrollments

Item	No Impact	Moderate Negative Impact	Strong Negative Impact	Do Not Know
32. Publicity that a college degree may not noticeably increase earning power.	53%	24%	4%	18%
33. Increased occpuational opportunities open to women.	18%	44%	32%	4%
34. Publicity about there no longer being a shortage of registered nurses.	22%	49%	22%	6%
35. Publicity about wages paid to registered nurses being lower than some other professions.	24%	50%	20%	5%
36. Publicity about hospitals potentially having to close units due to low occupancy or cost containment.	19%	48%	22%	11%

Fewer respondents believed that these items would have no impact in the future than believed they were having no current impact. The item that was most identified as having no impact on nursing enrollments was publicity that a college degree may not appreciably increase earning

power. The items most identified as having a negative impact on enrollments was publicity about there no longer being a shortage of registered nurses.

Table 62. Extent to Which Respondents Believed Each Item Will Impact Future Enrollments.

Item	No Impact	Moderate Negative Impact	Strong Negative Impact	Do Not Know
37. Publicity that a college degree may not noticeably increase earning power.	40%	39%	10%	10%
38. Increased occupational opportunities open to women.	12%	41%	41%	5%
39. Publicity about there no longer being a shortage of registered nurses.	10%	52%	34%	2%
40. Publicity about wages paid to registered nurses being lower than some other professions.	14%	49%	32%	4%
41. Publicity about hospitals potentially having to close units due to low occupancy or cost containment.	10%	44%	38%	7%

While the numbers of persons believing that any of thses items will have no impact decreased in Table 62, there are still significant numbers of administrators who either do not see or understand the relationship of external environmental factors on enrollment.

Scoring

The possible range of scores in this section and the respondent's range and mean is shown in Table 59. The respondents range of scores was the full range of scores possible. The mean was below the midpoint in the range which would indicate that the majority of respondents were aware of the societal impact of problem redefinitions.

Mangement Tactics

The choice of management tactics used by respondents in the area of problem depletion is shown in Table 60. The predominate tactic chosen

was the experimental one. This means that should an issue noted in Tables 61 or 62 become a problem which requires action, the respondents have no plan ready to implement. The experiemtnal tactic as described in this study is one of trial and error actions taken in respond to a problem with no overall goal in mind. Thus the number of respondents who indicated that the issue was or may be a negative factor were either unable or unwilling to develop plans to address the issue.

Summary

When presented with a list of five items that could impact generic baccalaureate nursing education in the future 81 to 86 percent of the respondents agreed that four of these items could have a moderate to strong negative impact on enrollments. At the same time, they indicated that they had no plan ready to address any of these issues if they should arise. The area of least present and future concern was that publicity about a college degree not necessarily increasing earning power may decrease enrollments. The area of greatest present and future concern was that publicity about there no longer being a shortage of nurses may negatively impact enrollments. The mean scores of respondents in this area was well below the mean which would indicate that problem depletion was not considered a problem by the respondents. This may account for why no plans were developed to address any issue.

SECTION IV

ENVIRONMENTAL ENTROPY

Overview

Environmental entropy is described as the uncertainty of the organization's external environment to continue to provide support for it at

the accustomed levels. This change or decrease in support may be due to a changing population base, decreased finances or changes in the market or technology.[8] Since these changes occur external to the organization, they are likely to be overlooked in planning for the future. Administrators are also likely to assume that they cannot change or impact these occurrances.

The twelve questions contained in this section were derived from the items listed in the environmental entropy cell of Table 9. Table 9 is a composite of items contained in Tables 5, 6 and 8 which identify reasons why higher education and generic baccalaureate nursing programs are facing problems as well as the most common criteria used to identify academic programs for possible discontinuance. These items are all organized around the causes of decline as described by Levine (Table 4). Numbers of the questions included in this section are contained in Table 11.

Responses to Individual Questions

To assist in predicting future enrollments or the future pool of potential applicants, respondents were asked whether or not they used a variety of factors as predictors. The least used predictor of future enrollments was the statewide birth rate with 42 percent of the respondents indicating they did not use it. Statewide figures on the percentage of high school graduates attending college, statewide figures on college enrollments, and statewide and national figures on enrollments and graduations from generic baccalaureate nursing programs were used to a great or some extent by 57 to 61 percent of the respondents and to a limited extent or not at all by 32 to 41 percent of the respondents.

Eleven to fifteen percent of the respondents did not use these latter figures at all.

Asked to indicate what impact certain factors would have on future enrollments, 14 to 17 percent of the respondents indicated that decreased numbers of college age students, increased tuition and changes in federal financing of health care delivery would have no impact while 81 to 85 percent felt these factors would have a slight to strong negative impact. Only seven percent of the respondents stated that decreased federal monies for student aid would have no impact on future enrollments.

In response as to whether the current number of graduates from all generic baccalaureate nursing programs in the state was equivalent to the need for nurses in the state, 44 percent of the respondents indicated that the need was greater than the number of graduates. Fifty-five percent stated that the need was equal to or less than the current number of graduates.

Fifty-eight percent of the respondents indicated that 80 percent or more of their generic baccalaureate nursing graduates secured their first nursing position in their state. Thirty-one percent of the respondents said that 40-79 percent of their graduates secured their first nursing position in their state while 8 percent indicated that 39 percent or less did. Three percent of those responding stated that they did not know what percentage of their graduates secured their first nursing position in their state.

In an attempt to determine the nature and extent of present efforts to coordinate or regulate the enrollment in, or number of, generic baccalaureate nursing programs, information was sought as to the presence of any statewide mechanisms which addressed baccalureate nursing education

(Table 63). As is clear from the table, the only mechanism present to any extent is a voluntary effort among educational institutions in the state to provide and coordinate generic baccalaureate nursing programs.

Table 63. Statewide Mechanisms Present to Regulate Numbers of Generic Baccalaureate Nursing Programs and Enrollments

ITEM	YES	NO
1. A formal statewide nursing education plan which is the base for determining admissions to generic baccalaureate nursing programs.	10%	86%
2. A voluntary but binding understanding among baccalaureate nursing program administrators to limit enrollments to meet state needs.	2%	94%
3. A mandatory system dictating number, types, and locations of generic baccalaureate nursing programs and/or enrollment levels in these programs.	8%	89%
4. A voluntary effort between employer representatives and educators to meet, but not exceed, statewide registered nurse needs.	7%	89%
5. A voluntary effort among educational institutions in state to provide and coordinate baccalaureate nursing education for current graduate/registered nurses.	32%	66%

When respondents were asked if their generic baccalaureate nursing program differed significantly from other such progams in the state, from 64 to 79 percent answered that it did not. The least variation was in the amount of independent study and the most variation was in the design of the curriculum.

Respondents were asked whether they had noted any changes in their students relative to age, desire for part-time study or grade point average. The majority of the respondents indicated that the age of the generic baccalaureate nrusing student had increased, the grade point average had not decreased, and more students were requesting part-time study. They also noted that the number of pre-nursing majors had decreased.

To address some of these changes occurring or predicted, respondents were asked whether they currently admitted part-time students into their generic baccalaureate nursing programs, whether any satellite programs were offered, and if registered nurse students were admitted either on- or off-campus. Eighty-four to ninety-four percent of the respondents currently admit part-time and registered nurse students into their programs. Only eight percent of the respondents do not have future plans to admit registered nurse students. Sixteen to seventeen percent of the respondents do not currently admit part-time generic students and do not plan to admit them in the future. Only 13 percent of the respondents currently have satellite programs for generic baccalaureate nursing students and this decreases to 12 percent in the future. Currently, 36 percent of the programs have satellite programs for registered nurse students and this number shows no change in the future.

Another environmental issue which chief executive officers will have to address is the present and future availability of clinical facilities for student experiences. The majority of respondents indicated the following as present concerns: agencies limiting the numbers of students they will accept and the lack of clinical facilities to model new and emerging nursing roles. Areas not a present concern included: agencies instituting charges for clinical placement of students, lack of facilities using new technology, and lack of ambulatory or wellness orientated facilities for clinical placements. All of these areas except lack of facilities where new technology is used were identified as future areas of concern.

When respondents were asked from what groups they obtained annual input for the purpose of curriculum revision, 76 to 96 percent indicated

they sought such input from representatives of agencies where students received clinical experience, nursing alumni, and current employers of new graduates. Only 37 percent of the respondents secured input from broad-based community advisory committees. Student input was obtained by all respondents.

Scoring

The possible range of scores in this section was forty-three to ninety-four. A high score indicated that either the present environment was not supportive of generic baccalaureate nursing education or that the respondents did not recognize and use environmental factors in planning. The range of scores and the mean for respondents is noted in Table 59.

Scores in this section were high. The midpoint in the posssible range was 68.5 and the mean for respondents was 73.5. The mode was 71 which also is above the midpoint. Thus the scores indicate that there are either unfavorable external environmental factors and/or that the respondents are not using external environmental factors in their planning.

Management Tactics

Respondent's management tactics used to address the environmental problem present are noted in Table 60. The majority of respondents have taken or plan to take actions which seem to address the problems present in the environment in that they selected the enactive mode first and proactive second. The enactive response mode means that new or different actions are being vigorously undertaken to address a present or anticipated problem while with the proactive response, a plan is ready to implement. Reaction tactics ranked third and experimental last.

The actions being undertaken by most respondents were to maintain but decrease enrollment of the traditional age, full-time college student and to add or expand one of the following: graduate program; registered-nurse completion program; off-campus program; weekend or evening studies program; or external degree program.

Summary

The mean scores for respondents in the environmental entropy section of causes of decline were five points above the midpoint of the range. This indicates that the external environment is not as supportive of generic baccalaureate nursing education as it once was.

Fifty-five percent of the respondents stated that the number of generic baccalaureate nursing graduates from educational institutions in their states currently equals or exceeds the demand. Fifty-eight percent of the respondents indicated that 80 percent or more of their graduates secured their first nursing position in their state each year. At the same time, 31 percent of the respondents said that only 40 to 79 percent of their graduates received their first nursing position in their states.

Data in Table 63 shows that there are few states with mandatory means for coordinating generic baccalaureate nursing education. The predominate means of coordination is a voluntary effort among educational institutions and this is only present in 32 percent of the states.

Sixty-four to seventy-nine percent of the respondents indicated that their generic baccalaureate nursing curricula did not differ significantly from other such programs in the state. The area of greatest variation was in the design of the curriculum; the area of least variation in the amount of independent study.

Respondents indicated that students enrolling in their programs were older and requested more part-time study. The grade point average of applicants had not dropped but the overall number of pre-nursing majors had decreased. In response to some of these changes, respondents were admitting more part-time and registered nurse students into their programs. Only 13 percent of the respondents currently have satellite programs off-campus for generic baccalauareate nursing students and this number will remain unchanged. In contrast, 36 percent of the progams have satellite progams for the registered nurse student.

Fifty-seven to sixty-one percent of the chief excecutive officers indicated that they used the following enrollment predictors to a great or some extent: statewide figures on percentages of high school students attending college, statewide figures on college and university enrollments, statewide and national figures on enrollments in and graduations from generic baccalaureate nursing progams. Only 32 percent of the respondents used statewide birth rates to any extent in predicting enrollments.

Fourteen to seventeen percent of the respondents indicated that decreased numbers of college age students, increased tuition, and changes in the federal financing of health care delivery would not negatively impact enrollments in their programs. Ninety-three percent of the the respondents indicated that decreased federal monies for student aid would have a negative impact on enrollments.

Current issues which are of concern to chief executive officers include agencies limiting the numbers of students they will accept and the lack of clinical facilities to model new and emerging nursing roles. Areas which are not a present concern but will be in the future along with the two previous items are: agencies instituting charges for

clinical placement of students and lack of ambulatory or wellness oriented facilities for clincial placements. Lack of clincial facilities where new technology is used is not a current concern but half of the respondents feel it may be in the future.

In terms of securing input for possible use in curriculum revision, 76 to 96 percent of the respondents regularly secured such input from representatives of agencies where students were placed for clinical experiences, nursing alumni, and current employers of new graduates. Student input was obtained by all respondents. Input from community advisory committees was sought in only 37 percent of the programs.

The predominate management tactics used by respondents was the enactive one which means plans are already being undertaken to address problem areas. The second most used approach was the proactive one indicating that the problem is known and plans are ready to enact at the approprite time. The experimental mode was selected least often in this category.

SECTION V

ORGANIZATIONAL ATROPHY

Overview

Organizational atrophy is the non-function or malfunction of an organization's internal structures which then sends no or inappropriate warning signals of problems. In this way, problems are either not addressed or are addressed inappropriately. Factors contributing to this problem include: inconsistent or perverse incentives; decentralized authority with vague responsibility; weak leadership; role confusion; lack of appropriate evaluation procedures, stifled dissent and

upward communications; rationalization of poor performance; high turnover; suspicion of outsiders; continuous reorganization; and routine adherence to the past.[9]

The 16 questions included in this section were generated from items contained in the organizational atrophy section of Table 9. This table is a composite of items contained in Tables 5 and 6 which identify problems in higher education and generic baccalaureate nursing education which are causing some of the current decline in these areas. In addition, Table 9 includes the most common criteria used to identify academic programs for possible discontinuance (Table 8). Table 9 is organized around the causes of decline as identified by Levine (Table 4). Numbers of the specific questions contained in this section of the questionnaire are identified in Table 11.

Responses to Individual Questions

One segment of questions was focused on the extent to which the curriculum incorporated current and future health care trends and used new techniques for delivery. The only item listed which was covered to "a great extent" in the generic baccalaureate nursing curriculum was the concept of wellness. Those topics covered "to some extent" included: health policy, health economics and gerontology. Topics covered only "to a limited extent" were computers and marketing of nursing services. Eighteen percent of the respondents did not include the use of computers in their curricula, 11 percent excluded the marketing of nursing services, 4 percent did not address health economics, and one percent did not cover gerontology. All respondents covered wellness and health policy to some degree. Ninety-six percent of all respondents indicated that environ-

mental trends were discussed and overall curricular decisions made to address these at regular large faculty or curriculum meetings.

Information about faculty workload and use of technology in the delivery of the curriculum was sought. Only 24 percent of the respondents indicated that over the past five years faculty time spent personally delivering lectures had decreased while use of audio-visual materials or computers for delivery of the same material had increased.

Items computed as a regular part of the faculty workload by 54 to 65 percent of the respondents included: committee work, research and scholarly activity; student advisement; class preparation time; and clinical preparation time. It seemed evident that direct classroom and clinical teaching time would be included so these items were not listed. Thirty-seven percent of the respondents counted clinical practice exclusive of clinical instruction in the faculty workload and 34 percent included public and community service.

When asked how faculty workload was determined, the greatest agreement was that it was not determined as a part of the collective bargaining process (Table 64). There was much less agreement as to whether faculty workload was computed via a standard institutional formula or a formula individualized to the nursing department. Respondents indicated that the faculty workload in the generic baccalaureate nursing program was greater than that for most other baccalaureate programs in the institution.

Thirty-four percent of the respondents stated that though faculty workload was determined through the institution or collective bargaining, they could influence various components by manipulation of assignments and classification of activities.

Table 64. Determination of Faculty Workload

ITEM	YES	NO
1. Workload for faculty in the institution is figured on a standard formula.	50%	44%
2. Workload for faculty in the institution is determined as a part of the collective bargaining process.	18%	72%
3. Faculty workload in the generic baccalaureate nursing program is figured in a formula individualized to our department.	58%	36%
4. Faculty workload in the generic baccalaureate nursing program is currently comparable to other baccalaureate programs throughout this institution.	30%	59%
5. Faculty workload in the generic baccalaureate nursing program is currently greater than most other baccalaureate programs in this institution.	51%	36%

Twenty-eight percent of the respondents indicated that though faculty workload is not controlled by either the institution or collective bargaining, they can manipulate few variables to change the past or present practice. Twenty-eight percent also indicated that they currently have a faculty group studying how the workload can be revised.

Another factor which can affect the control of a chief executive officer is tenure. Chief executive officers were asked what percentage of their faculty were currently tenured or in the tenure system and what percentage they believed should be. Responses to this question are contained in Table 65. The majority of the respondents would prefer that 50 to 69 percent of the faculty be tenured or in the tenure system. At this time, only 18 percent of the respondents indicated that 50 to 69 percent of their faculty were tenured or in the tenure system. Currently, more respondents had 80 percent or more of their faculty tenured or in the tenure than they believed should be. At the same time, more respondents also had below 40 percent of thier faculty tenured or in the tenure system then they desired to have. Forty-six percent of the respondents indicated that because institutional policies dictate tenure system status, there

was little that they could do except follow policies. Some respondents indicated that their institutions did not have a tenure system.

Table 65. Percent of Respondents Indicating Percentages of Faculty Tenured or in the Tenure System

Faculty	80% or More	70-79%	60-69%	50-59%	40-49%	Below 40%
Currently Tenured or in Tenure System	28%	7%	8%	10%	20%	32%
Should be Tenured or in Tenure System	19%	10%	16%	24%	13%	11%

Information about the academic preparation of faculty teaching in the generic baccalaureate nursing program and their participation in research and scholarly activity was also sought. Respondents were asked to identify the number of generic baccalaureate nursing faculty now in each category and the number that they believed should be in each category (Table 66). The numbers of faculty currently with and without doctorates is just the opposite of that desired by the chief executive officers as are the numbers of faculty who have published. While the chief executive officers believe that more faculty should be principal investigators of externally funded research than currently are, their expectations are at lower levels than they were for numbers of faculty who whould have doctoral preparation.

Seventy-one percent of the respondents indicated that they had enacted a plan whereby some present faculty were obtaining doctorates. Thirty percent of the respondents indicated that they believed the publishing and research activities of the faculty would not increase

Table 66. Percentage of Respondents Indicating Percentages of Faculty with Doctorates, Participating in Research and Publishing

CATEGORY	50% or more		40 - 49%		30 - 39%		20 - 29%		10 - 19%		Under 10%	
	Now Have	Should Have	Now Have	Should Have	Now Have	Should Have	Now Have	Should Have	Now Have	Should Have	Now Have	Should Have
Faculty with Doctorates	4%	71%	5%	8%	12%	9%	19%	7%	22%	3%	39%	2%
Faculty as author in state or national professional journal or author or contributor to nursing book.	10%	56%	6%	11%	20%	12%	18%	13%	21%	4%	25%	3%
Faculty as principal investigator of externally	1%	10%	0%	7%	3%	22%	6%	22%	14%	24%	77%	12%

until the number of doctorally prepared faculty increased. At the same time, 27 percent of the respondents stated that faculty participation in research and publishing depends on the interest and ability of each faculty member and once shown or expressed can be encouraged. Twenty-five percent of the respondents indicated that with the current teaching load of faculty there is little time for publishing or research. Four percent of the respondents indicated that doctoral preparation was not necessary to teach at the baccalaureate level.

Respondents were asked to compare their generic baccalaureate nursing program with other professional and non-professional programs in their institutions on selected characteristics. The majority of the respondents indicated that their programs required a higher number of student contact hours for graduation and a higher grade point average for students to progress or remain in the program than other professional or non-professional programs in the institution. The majority of respondents also indicated that their programs had a lower number of doctorally prepared faculty than other professional and non-professional programs. Respondents indicated that they did not have fewer students enrolled in their nursing programs than were enrolled in other professional and non-professional programs.

When asked which of a variety of types of input the chief executive officer regularly sought and used to make administrative and curricular changes, from 72 to 100 percent of the respondents indicated they used faculty and student evaluations as well as input from lay and professional persons outside of the institution, and input from their superiors. Respondents were almost equally divided (48 percent

versus 50 percent) as to whether they sought or used input from faculty and administrators in other departments across the campus.

When asked what course of action they would take if faced with a substantial reduction in the departmental budget, 44 percent of the chief executive officers indicated that they would eliminate some units, functions or persons and strengthen or add others. Thirty-four percent of the respondents stated they would make selective deep cuts in some units and lesser or no cuts in other units. Nineteen percent of the respondents indicated that they would initiate across-the-board cuts in all units.

Scoring

The range of scores for this section as well as the respondents' range and mean are shown in Table 59. The mean for the respondents fell just one point below the midpoint in the range of scores possible. The respondents' range tended to be more in the high end of the possible range. A score at the mean would indicate that the administrative climate is neither supportive or unsupportive, but more probably one that may focus on maintaining the status quo. There may be overt expressions of a desire to change but no action to make this occur. There may also be selected areas which are readily addressed and others which are ignored.

Management Strategies

The management tactics selected for use by participants in this section are ranked in Table 60. The major mode chosen by participants was the enactive response. The second most used management approach was the reactive one. The proactive and experimental approaches were

not selected often or by many respondents in dealing with problems of organizational atrophy.

The first and second choices of action are intersting in that the enactive mode means that a plan is now being implmented to address an issue whereas the reactive response implies that a change in action is not implemented until a problem exists. Thus an enactive approach may be undertaken for selected problems while other problems are not identified or addressed, thus bringing about a reactive response.

Summary

The results of this section provide an index of selected areas in a generic baccalaureate nursing program where administrative approaches are criticial. No attempt is made to indicate what approach should be used, only to identify whether the administration is or is not currently supportive and/or progressive. The majority of all factors identified in this section are under the total or partial control of the unit administrator.

When given a number of newer or future trends in health care, the majority of the respondents indicated that these were covered to 'some' or 'a limited' extent in their curricula. However, 18 percent of the respondents indicated that they did not address the use of computers in their curricula. In terms of keeping the program and faculty up-to-date with technology, only 24 percent of the respondents indicated that within the past five years faculty use of audio-visual materials or computers had replaced time faculty spent personally teaching any one subject.

The majority of respondents seemed to indicate that while faculty workload was determined to some extent by the institutions, that there

was flexibility at the unit level to identify and manipulate components of the workload or formula. Items included in faculty workload by 54 to 65 percent of the respondents in addition to classroom and clinical teaching contact hours included committee work, research and scholarly activity, student advisement, and class and clinical preparation time. Items not regularly included were clinical practice exclusive of student teaching time and public and community service. Fifty-one percent of the respondents indicated that the faculty workload in their programs was greater than that in most other baccalaureate programs in their institution.

In spite of the fact that 54 percent of the respondents counted research and scholarly activity as a part of faculty workload, less than 10 percent of the faculty are or have been the principal investigator of externally funded research and 19 percent or less of the faculty have published in 46 percent of the respondent's programs. The chief executive officers, while indicating that they believe much greater numbers of faculty should publish and be principal investigators, chose passive management approaches to address these areas. These approaches focused on waiting for faculty to express or demonstrate an interest in either area and then supporting that expression or openly indicating that neither activity would increase until more faculty were doctorally prepared.

Seventy-one percent of the respondents believed that 50 percent or more of their faculty should be doctorally prepared when only 4 percent were. When asked what action they were taking to address this problem, most respondents indicated that they had implemented a plan whereby some

present faculty were obtaining doctorates. This is a much more active tactic than was used to address the decreased research and publishing area.

While the student enrollment in the majority of the generic baccalaureate nursing programs represented by respondents was equal to or greater than that in other baccalaureate programs, the nursing program required more credit hours to graduate and a higher grade point average to progress in the program than were required for other units in the institution.

The means score for this section was one point below the midpoint in the range. This would mean that the average respondent presented neither a supportive or unsupportive administrative climate. This may mean that the focus is on maintaining the present status of the unit. Smaller or less complex areas seemed to be addressed to some extent through enactive tactics while the response to more difficult issues or problems was reactive or justifying why an area could not or did not need to be changed.

SECTION VI

PROGRAM DOWNSIZING

In this study, program downsizing was defined as any reduction in size of a unit either by decreasing enrollment or faculty or deleting one segment of a unit, but not the entire unit. Given this definition, 54 generic baccalaureate nursing programs (29 percent of the respondents) indicated that their programs had been proposed for downsizing within the past five years. Forty-eight programs (26 percent) had actually

been downsized. One hundred and nineteen (119) respondents also indicated that within this same time period, other programs in their institution had also been proposed for downsizing with downsizing actually occurring in 109 of these institutions. This would seem to indicate that program downsizing is not an uncommon course of action taken by institutional administrators when faced with decline.

When asked who proposed the downsizing of the nursing program, 38 respondents indicated the college or university administration while 15 stated that the nursing program administration did. The main reasons as to why downsizing was proposed are noted in Table 67. Those reasons for downsizing proposed by college and university administration fall predominately into the categories of cost of the program, decreased enrollments, and lack of relatedness to institutional mission.

Table 67. Reasons for Proposed Downsizing of Generic Baccalaureate Nursing Programs

REASON	NO PROGRAMS
Cost of program	30
Decreased enrollments	11
Lack of relatedness to institution mission	4
Decreased need for nurses in state	2
Lack of available faculty	2
Duplication of nursing programs in state	1
Curriculum revision (fewer faculty needed	1
Refocus resources to graduate program	1
Limited clinical sites	1

The nature of the downsizing proposed and actually taking place shows the predominate trend of just decreasing undergraduate enrollment and faculty. A much smaller trend was the elimination of lifelong

education faculty with an equal but small number of programs proposing elimination of lifelong education offerings and those proposing an expansion of these offerings.

Thirty-one respondents indicated that in addition to programmatic reductions, there had also been downsizing in clerical staff. Reductions had also occurred in administrative positions in seventeen programs and in work study or graduate assistant positions in ten settings.

When asked if the level of financial support received by the generic baccalaureate nursing program since downsizing was proposed or occurrred had increased proportionately with other departments across the campus, 37 respondents responded that it had. Ten respondents indicated that financial support had not increased proportionately with other units across campus.

The mean scores in three of the four categories of Levine's causes of decline were higher, but not appreciably, for those generic baccalaureate nursing programs proposed for or actually experiencing downsizing than for those programs not proposed for downsizing (Table 68). Thus those programs proposed for or actually experiencing downsizing were more politically vulnerable, were in a less supportive external environment and had a less progressive or supportive administrative climate than programs that had not been proposed for downsizing.

Cross tabulation of various responses were done to develop a profile of those generic baccalaureate nursing programs proposed for downsizing. The average program proposed for downsizing is located in a private institution in the Midwest. The academic institution is fifty years or more of age and has full-time equivalent student enrollment of less than 5,000. The generic baccalaureate nursing program is eleven to nineteen

years old with a full-time equivalent student enrollment in the first level nursing courses in the 1984-85 academic year of forty-nine or fewer students. The nursing program has not had the maximum number of nursing students admitted to its first level nursing courses over the past five years.

Table 68. Mean Scores of Generic Baccalaureate Nursing Programs Proposed for or Actually Experiencing Downsizing on Levine's Causes of Decline Typology (See Table 47 for interpretation of scores)

	RANGE AND MEAN SCORES			
CAUSE OF DECLINE	POSSIBLE RANGE & MEAN	NOT PROPOSED FOR DOWNSIZING	PROPOSED FOR DOWNSIZING	ACTUALLY DOWNSIZED
Political Vulnerability	36 - 72 54	41.5 - 63 52.27	45 - 62 53.58	46 - 62 53.70
Problem Depletion	10 - 20 15	10 - 20 13.12	10 - 18 12.09	10 - 16 12.02
Environmental Entropy	43 - 94 68.5	61 - 87 73.52	68 - 80 74.04	70 - 79 74.14
Organizational Atrophy	44 - 88 66	56 - 83 64.73	56 - 83 65	58 - 83 65

The chief executive officer of the those generic baccalaureate nursing programs proposed for downsizing is female, aged 40-49 years, and has a doctorate not in nursing as her highest earned degree. She has held her position from four to six years and had less than one year of administrative experience prior to assuming her current position.

The profiles of the academic institution and generic baccalaureate nursing program differ from the majority of all respondents only in the areas of type of institutional control (majority were public), size of

full time equivalent enrollment in first level nursing courses (overall average was 50-99), and admission of maximum students to the nursing program over the last five years (54 percent of respondents did admit maximum allowed). The institutional and nursing program profile differ from the profile of those institutions experiencing decline only by type of institutional control and full-time equivalent enrollment in the first level nursing courses (average for institutions experiencing decline was 50-99). The profile of the chief executive officers of the generic baccalaureate nursing programs proposed for downsizing is consistent with the average for all respondents as well as with the profile of those administrators in nursing programs experiencing decline.

The forty-eight generic baccalaureate nursing programs that actually were downsized differed from those programs proposed for downsizing in only the full-time equivalent student enrollment in the first level nursing courses. The enrollment in those nursing programs actually downsized was equally distributed between those with less than 49 students and those with 50 to 99 students. The mission statement in those institutions where generic baccalaureate nursing programs were proposed for and experienced downsizing was strongly supportive of baccalaureate level professional education. The Midwest had the largest number and percentage of generic baccalaureate nursing programs proposed for and experiencing downsizing. The percentage were equal and slightly less in the West and North Atlantic regions and lowest in the South (Table 69).

TABLE 69. Generic Baccalaureate Nursing Programs Proposed for Downsizing by National League for Nursing Geographic Region

NLN GEOGRAPHIC REGION	TOTAL NUMBER OF PROGRAMS	NUMBER OF PROGRAMS PROPOSED FOR DOWNSIZING	NUMBER OF PROGRAMS ACTUALLY DOWNSIZED
North Atlantic	89	14 (16%)	13 (15%)
Midwest	100	24 (24%)	20 (20%)
South	116	10 (9%)	9 (8%)
West	40	6 (15%)	6 (15%)
TOTAL	345	54 (16%)	48 (14%)

The management tactics selected for use by respondents proposed for downsizing is shown in Table 70. Reactive tactics were selected as the first and second choice of actions more often used by respondents from programs that had been proposed for downsizing than for those whose programs had not been proposed for downsizing. Proactive tactics were selected slightly more often while enactive approaches were selected less often. First choices of actions were the same for both sets of respondents in the areas of political vulnerability, problem depletion and environmental entropy. The first choice of actions in the area of organizational atrophy was the enactive tactics for respondents whose programs had not been proposed for downsizing and the reactive mode for those whose programs had been proposed for downsizing.

Table 70. Rank Order of Management Tactics Selected for Use by Chief Executive Officers in Generic Baccalaureate Nursing Programs Proposed for Downsizing by Cause of Decline (See Table 60 for interpretation of scores)

MANAGEMENT TACTIC	CAUSE OF DECLINE			
	POLITICAL VULNERABILITY	PROBLEM DEPLETION	ENVIRONMENTAL ENTROPY	ORGANIZATIONAL ATROPHY
Reactive	1	2	2	1
Proactive	2	3	3	4
Enactive	4	4	1	2
Experimental	3	1	4	3

SECTION VII

PROGRAM DISCONTINUANCE

The study revealed that ten generic baccalaureate nursing programs had been proposed for discontinuance and that two of these ten had actually been discontinued. Nine of the ten programs proposed for discontinuance had also been proposed for program downsizing with five of those actually being downsized. Both programs that were discontinued had also been downsized.

Of the ten institutions where the nursing programs had been proposed for discontinuance, seven respondents indicated that programs other than nursing had also been proposed for discontinuance. Programs other than nursing were actually discontinued in two of these seven institutions. Interestingly, two respondents whose programs had been proposed for discontinuance did not know if other programs in their institution had been

proposed for discontinuance. One of the two respondents in this latter group headed one of the nursing programs that was actually discontinued.

A summary of selected characteristics of the ten nursing programs proposed for discontinuance and the two that were actually discontinued is contained in Table 71. One of the two programs discontinued was an associate degree nursing program located in an institution where the nursing department administered an associate degree, generic baccalaureate and graduate nursing program. Thus an accurate profile of the one generic baccalaureate nursing program actually discontinued is noted in the last column of Table 71 with stars. Of particular interest is that eight of the ten programs proposed for discontinuance had not admitted the maximum number of students that they could to their first level nursing courses over the last five years.

Other characteristics of the generic baccalaureate nursing programs proposed for discontinuance include: (1) located in institutions where the full-time equivalent institutional enrollment had remained stable or decreased by less than ten percent each year for the last five years; (2) a lower attrition rate than the institution; (3) classroom faculty-student ratios ranging from less than 1:10 to more than 1:35 (1:10 or less for private program discontinued); (4) clinical faculty-student ratios ranging from 1:8 to 1:10 (1:8 or less for private program discontinued); (5) anuual data on cost per graduate not readily available; and (6) representation by 25% or more of the nursing faculty on interdepartmental and institution-wide committees and by 5 percent or less of the nursing faculty in the institutional level governance systems.

Table 71. Summary of Selected Characteristics of Generic Baccalaureate Nursing Programs Proposed for Discontinuance and Actually Discontinued

CHARACTERISTIC	PROPOSED FOR DISCONTINUANCE N=10	ACTUALLY DISCONTINUED N=2
NLN Geographic Region	North Atlantic (2) Midwest (4) South (2) West (2)	*South (2)
Institutional Control	Public (4) Private (6)	Public (1) *Private (1)
Institution Age	50 years + (9) 30-39 years (1)	50 years + (1) *30-39 years (1)
Nursing Program Age	50 years + (1) 40-49 years (1) 30-39 years (2) 20-29 years (2) 10-19 years (2) Less than 10 years (2)	30-39 years (1) *11-19 years (1)
Full Time Equivalent Student Enrollment (Institution)	25,001 + (2) 5,001-10,000 (2) Less than 5,000 (6)	25,001 + (1) *Less than 5,000 (1)
Full-Time Equivalent Student Enrollment (First Level Nursing Course)	250 + (1) 100-149 (1) 50-99 (1) 49 and less (6)	150-199 (1) *49 and less (1)
Admit Maximum Students Allowed to First Level Nursing Course	Yes (2) No (8)	Yes (1) *No (1)

*Denotes most representative characteristics of programs discontinued.

The mission statements in the majority of those institutions where the generic baccalaureate nursing programs were proposed for discontinuance strongly supported baccalaureate level professional education; supported to strongly supported research and scholarly activity; and supported (but not strongly) public and community service. In the private institution where the generic baccalaureate nursing programs was discontinued, the institutional mission statement did not address any of these elements.

A profile of the chief executive officers in those ten generic baccalaureate nursing programs proposed for discontinuance reveals a female, aged 40 to 49, holding a doctorate not in nursing, who had held her position from 4 to 6 years and had less than one or between 4 to 6 years of prior administrative experience. This profile is consistent with the overall profile of all chief executive officers who responded to the survey.

The scores on Levine's causes of decline for those programs proposed for and actually discontinued are shown in Table 72. The mean score in the area of political vulnerability was higher for those programs proposed for discontinuance and actually discontinued than for those programs not proposed for discontinuance. The scores in the area of environmental entropy were lower than those programs not proposed for discontinuance. Scores in the area of organizational atrophy were basically the same for respondents not proposed and those proposed for discontinuance while they were lower for programs actually discontinued.

The rank order of management tactics selected for use by respondents whose programs had been proposed for discontinuance is shown in Table 73.

The overall order of tactics selected by respondents whose programs had been proposed for discontinuance is unlike that of the group that had been proposed for downsizing or the group that had not been proposed for either downsizing or discontinuance. The only similarity is in the first choice of respondents whose programs had been proposed for discontinuance which was the same for all causes of decline as the group whose programs had bit been proposed for discontinuance. No other clear pattern of use emerged.

Table 72. Mean Scores for Each Cause of Decline as Defined by Levine for Generic Baccalaureate Nursing Programs Proposed for and Actually Experiencing Discontinuance

CAUSE OF DECLINE	MEAN SCORES		
	NOT PROPOSED FOR DISCONTINUANCE (N = 275)	PROPOSED FOR DISCONTINUANCE (N = 10)	*ACTUALLY DISCONTINUED (N = 2)
Political Vulnerability	52.27	55.42	54
Problem Depletion	13.12	12	12.01
Environmental Entropy	73.52	72.16	69
Organizational Atrophy	64.73	65.8	61

*Scores may be skewed due to the small number of programs included in this area.

In summary, the generic baccalaureate nursing program proposed for discontinuance is located in a private institution in the Midwest. The age of the institution is fifty years or more while the generic baccalaureate nursing program is aged thirty-nine years or less. The full-time equivalent student enrollment in the institution is less than 5,000 and for the generic baccalaureate nursing program is less than

forty-nine. The maximum number of students allowed to be admitted to the nursing program had not been admitted over the last five years. The mean scores for the causes of decline do not differ significantly between those programs proposed for and not proposed for discontinuance. The scores of those institutions actually discontinued do differ but the number of institutions in the sample is quite small.

Table 73. Rank Order of Management Tactics Selected By Respondents Whose Programs Had Been Proposed for Discontinuance (Noted According to Levine's Causes of Decline)

MANAGEMENT TACTIC	CAUSES OF DECLINE			
	POLITICAL VULNERABILITY	PROBLEM DEPLETION	ENVIRONMENTAL ENTROPY	ORGANIZATIONAL ATROPHY
Reaction	1	3	4	1
Proactive	4	4	3	3
Enactive	3	2	1	2
Experimental	2	1	2	4

SECTION VIII

PERSONAL DATA

Each chief executive officer was asked five personal data questions to enable a profile of respondents to be developed. Based on these answers, the average respondent was female; aged 40 to 59; had a doctorate which was not in nursing; had held her position from 4 to 6 years; and had either less than one year or 4 to 6 years of administrative experience prior to assuming her current position (Table 74).

While there were deviations from the profile, none were consistent enough to constitute a major subset of characteristics. By National League for Nursing geographic region, the major variations to the profile drawn were in the South where the average age of respondents was 50 to 59 years and in the West where the age was 40 to 49 years. The South also had the smallest percentage of respondents aged 60 to 69 and the highest percent aged 30 to 39 years. The lowest percentage of chief executive officers with doctorates in nursing was found in the Midwest. With the exception of the West, approximately 16 percent of the chief executive officers in each of the other geographic regions held a masters degree in nursing as their highest degree. Almost half of the chief executive officers in the West had held their position from one to three years; 40 percent of those in the South had been in office from four to six years; 87 percent in the Midwest ranged from one to nine years in office; while 53 percent in the North Atlantic region had served from one to six years. The North Atlantic region had the highest number of chief executive officers with length of service ten years or more.

SECTION IX

FACTOR ANALYSIS

A factor analysis was attempted on the items contained in Table 11. The items did not cluster as they were groupd in this study. There was some grouping into three possible content domains but the groups were very large (forty items per group) and the factor loadings for many items were not of an appreciable size.

Possible reasons as to why the items did not cluster include the factual nature of many questions and the diverse range of answer options

Table 74. Personal Data About Respondents by National League for Nursing Geographic Region

Item	NLN GEOGRAPHIC REGION				
	North Atlantic N=89	Midwest N=100	South N=116	Midwest N=40	Total N=185
AGE					
30-39	2%	3%	12%	4%	5%
40-49	39%	39%	31%	48%	38%
50-59	39%	39%	46%	28%	40%
60-69	20%	19%	12%	20%	17%
HIGHEST EARNED DEGREE					
Master's Nursing	17%	16%	14%	4%	14%
Master's Not Nsg	0%	3%	2%	0%	2%
Doctorate Nursing	34%	9%	25%	28%	22%
Doctorate Not Nsg	49%	72%	60%	68%	63%
TIME IN POSITION					
Under 1 year	15%	5%	12%	16%	10%
1-3 years	24%	29%	23%	48%	29%
4-6 years	29%	31%	40%	28%	33%
7-9 years	10%	27%	12%	4%	16%
10-12 years	12%	6%	8%	0%	7%
13 or more	10%	3%	6%	4%	5%
YEARS ADMINISTRATIVE EXPERIENCE PRIOR TO THIS POSITION					
Under 1 year	32%	20%	27%	28%	26%
1-3 years	15%	24%	17%	16%	19%
4-6 years	22%	24%	25%	24%	24%
7-9 years	7%	6%	10%	12%	8%
10-12 years	7%	11%	4%	4%	7%
13 or more	17%	15%	17%	16%	16%

in many questions. Several of the four major content areas are closely related and there is great potential for some overlap of concepts. The original article from which these concepts were taken does not present any evidence of means used to clearly distinguish domains among the concepts presented.[10]

SECTION X

INCIDENTAL FINDINGS

Since enrollments and costs emerged as two major problem areas, cross-tabulations were run on selected cost and enrollment questions compared with whether the generic baccalaureate nursing program had or had not been proposed for downsizing. Cost and enrollment questions were not broken down specifically by Levine's causes of decline.

Relative to enrollments, the cross-tabulations showed that programs that had been proposed for downsizing: (1) had a greater percentage of older generic baccalaureate nursing students; (2) had a higher percentage of students with decreasing grade point averages applying for admission; (3) had decreased numbers of pre-nursing majors; (4) had an increased number of satellite programs for generic baccalaureate nursing students and registered nurse students; and (5) were located in states that had more generic baccalaureate nursing students graduating then there was need or demand in the state.

As to cost data, the cross-tabulation data revealed that those programs that had been proposed for downsizing: (1) had fewer chief executive officers who were aware of all of the components figured in the cost data; (2) had more chief executive officers who actually figured

their own cost data; (3) had increased numbers of programs with higher costs than most other professional programs in their institution; and (4) had fewer faculty assigned to committee work, research and scholarly and public and community service as a part of thier regular workload.

SUMMARY

Respondents

The questionnaire used in this descriptive study was mailed to the chief executive officers in 345 generic baccalaureate nursing programs located in the continental United States and accredited by the National League for Nursing. The overall response rate was 67 percent with 54 percent of those being usable. Eleven percent of the respondents voluntarily chose not to participate in the study. The primary reason given for this non-participation was the time it took chief executive officers to complete the numbers of questionnaires they received each week. For this reason, many non-participants indicated that they had initiated a policy of not participating in any studies.

Percents of respondents, non-respondents, and non-participants were almost equally represented in two main blocks, the North Atlantic and Southern regions being alike, and the Midwestern and Western regions being similar. Public and private institutional control was virtually equally represented among respondents, non-respondents, and non-participants.

Non-respondents tended to represent more nursing programs aged 10 years and under while non-participants tended to represent programs aged 40 years and above. The majority of the respondents, non-respondents,

and non-participants were from generic baccalaureate nursing programs between the ages of 11 and 39 years.

The majority of the non-participants were from generic baccalaureate nursing programs with a full-time equivalent student enrollment in the first level nursing courses of 99 or fewer students. Non-participants represented programs with an enrollment between 50 to 149 students while respondent's programs had 149 or fewer students. This was the area of greatest difference among respondents, non-respondents, and non-participants. The differences noted among respondents, non-respondents, and non-participants should not prevent generalizability of the study results.

Decline

Forty-six percent of the respondents indicated that their generic baccalaureate nursing programs were currently experiencing no decline while only 33 percent believed that they would experience no decline within the coming five years.

The predominate type of decline that is currently being experienced and anticipated within the coming five years is erosion. Erosion is a gradual reduction in the resources needed to support the current level of output. It does not imply that the output is inappropriate. A small but consistent number of respondents indicated that contraction is and will be the predominate type of decline. Contraction is the rapid reduction of resources needed to maintain output at current levels. It also implies that the current output is appropriate.

When various characteristics are cross-tabulated, a profile of the generic baccalaureate nursing programs most and least affected by decline emerges (Table 75).

Table 75. Characteristics of Generic Baccalaureate Nursing Programs Most and Least Affected by Decline

CHARACTERISTIC	MOST AFFECTED BY DECLINE	LEAST AFFECTED BY DECLINE
NLN Geographic Region	North Atlantic Midwest	South West
Institutional Control	Private	Public
Age of Generic Baccalaureate Nursing Program	10 years and less 40 years and more	11-39 years
Institutional Size (FTE student enrollment)	10,001-15,000 20,001-25,000	above 25,000
Enrollment in First Level Nursing Course	50-99	250 or more

Causes of Decline Using Levine's Model

The two areas of Levine's model of causes of decline that seemed to reflect the most problems were those relating to political vulnerability and environmental entropy. The causes of political vulnerability lie predominately within the organization and can be controlled to a great extent by it. The causes of environmental entropy are external to the organization but can be impacted to some extent by organizational actions. Data from all four sections of the model will be summarized together according to major problem areas.

One major problem area identifed in this study was student enrollments. The study revealed that only 54 percent of the generic baccalaureate nursing progrms are admitting to the maximum of their capacity. In addition, the number of pre-nursing majors has decreased in 53 percent of the respondent's programs.

Forty-two percent of the respondents did not use their statewide birth rate to predict future enrollments. Eleven to fifteen percent did not use statewide figures on the percentages of high school graduates who attend college, statewide figures on college enrollments or statewide or national figures on enrollments and graduations from generic baccalaureate nursing programs. Fifty-five percent of all respondents indicated that the supply of nurses in their states equaled or exceeded the present demand. The primary effort currently in effect to coordinate baccaluareate nursing education within a state is a voluntary effort among educational institutions. This effort is only present in 32 percent of the states.

As to the changing nature of the generic baccalaureate nursing student, the majority of respondents indicated that the age of their students has increased while more students are requesting part-time study. In spite of these findings, 66 percent of the respondents indicated that they were continuing to focus their recruitment efforts on the traditional college age student. Eighty-four percent of the respondents do currently admit part-time and registered nurse students into their programs. Eight percent of the respondents do not plan to admit registered nurse students in the future while 17 percent do not plan to admit part-time generic nursing students in the future. Currently, only 13 percent of the respondents have satellite programs for generic bacclaureate nursing students while 36 percent have these programs for registered nurse students. These numbers remain unchanged for the future.

When presented with a list of items that may decrease enrollments if society or the government changes the level of current support or

definitions, the majority of the respondents agreed that all of the items were now problems and would become worse issues in the future. The issues included in this area were increased occupational opportunities open to women, publicity about there no longer being a shortage of registered nurses, publicity about wages being paid to nurses being lower than some other professions and publicity about hospitals potentially having to close units due to low occupancy or cost containment. The major response mode selected to address these issues was the experimental one which acknowledges that there may be a problem but provides no plan to address it.

In a related question as to the impact of certain items on future enrollments, the majority of the respondents believed that decreases in federal money for student aid would have a strong negative impact on enrollment while decreases in the numbers of traditional college age students, increased tuition and the federal financing of health care delivery would all have a slight negative impact.

Program cost was another major area of concern. Forty-four percent of the respondents indicated that their programs had a higher unit cost than most other professional programs in their institutions. Forty-three percent of the respondents indicated that their present unit cost was as low as they could get it despite the fact that only 49 percent indicated that they were aware of almost all of the components figured in the cost and 62 percent stated that they did not have annual cost data for their unit readily available.

Since salaries are a major part of any cost, information about faculty workload was sought. While 37 percent of the programs had faculty-student classroom ratios of 1:35 or above, 20 percent had ratios

of 1:15 or less. Thirty-eight percent of the respondents had a faculty-student clinical ratio of 1:10 while 44 percent had clinical faculty-student ratios of 1:8 or less. Seventy percent of all responding chief executive officers believed that their current faculty-student ratios were appropriate. Only twenty-four percent of the respondents indicated that faculty time spent personally presenting lectures decreased while the use of audio-visual materials or computers to present the same material increased over the past five years.

In the section on organizational atrophy, respondents indicated that though the faculty workload was determined in part by the institution and unit, that they had the potential to exert some control by how items were classified and assigned. The items that were included in faculty workload by 54 to 61 percent of the respondents, in addition to classroom and clinical instruction, included committee work, research and scholarly activity, student advisement, class preparation time, and clinical preparation time. Fifty-four percent of the respondents included research and scholarly activity as a regular part of faculty workload yet 46 percent of all respondents indicated that 19 percent or less of their faculty had published. Seventy-seven percent of the respondents stated that 10 percent or less of their faculty have been the principal investigators for an externally funded research project within the past three years.

When asked what course of action they would take when faced with a substantial reduction in the departmental budget, the majority of the respondents indicated that they would eliminate some units, functions or people and add or strengthen others. The second most common response

was making selective deep cuts in some units and lesser or no cuts in others. The least selected approach was to make across-the-board cuts in all units.

Curriculum issues emerged as another major area of concern. When asked whether their generic baccalaureate nursing programs differed significantly from other generic baccalaureate nursing programs in the state, the majority of all respondents indicated that they did not. Input for use in curriculum revision was obtained at least annually from clinical agency representatives where students received clinical experience, nursing alumni, and current employers of nursing program graduates. Major curriculum decisions as to what environmental trends or issues will be included in the program were made by the curriculum committee or at regular large faculty meetings.

Given a list of six emerging health care topics or areas, the majority of the respondents indicated that all were covered to some or a limited extent in their programs. The topics covered to some or a great extent included wellness concepts, health policy, health economics, and gerontology. Those topics covered only to a limited or no extent were use of computers and the marketing of nursing services. The majority of respondents indicated that their generic baccalaureate nursing programs required a higher number of contact hours for graduation and a higher grade point average than most other professional and non-professional programs in their institution.

Other curricular issues of current concern to the majority of respondents were clinical agencies limiting the numbers of students they will accept for clinical experiences and lack of clinical facilities to model new and emerging nursing roles. Future concerns

included these two issues as well as clinical agencies initiating changes for clinical placement of students, and lack of sufficient ambulatory and wellness oriented facilities for student placement.

The academic preparation of faculty emerged as an area of concern. Seventy-five percent of the respondents stated that they have a lower number of doctorally prepared faculty in their generic baccalaureate nursing programs than are in other professional programs in their institution. Eighty-six percent of the respondents said they had fewer doctorally prepared faculty than other non-professional programs in their institution. Translated into specifics, less than 10 percent of the undergraduate faculty had doctorates in 39 percent of the respondent's programs. Twenty-two percent of the programs had only 10 to 19 percent of the undergraduate faculty with doctorates. In contrast, 17 percent of the respondents said they believed that 50 percent or more of the faculty should have doctorates.

Program Downsizing

Program downsizing was defined as any reduction in the size of a unit either by decreasing enrollment or faculty or deleting one segment of a unit, but not the entire unit. Fifty-four generic baccalaureate nursing programs (29 percent of the respondents) had been proposed for downsizing within the past five years. Forty-eight of these programs (26 percent) were actually downsized. During this same time period, respondents indicated that 119 other programs in their institutions had been proposed for downsizing with 109 of these actually being downsized.

Downsizing of the generic baccalaureate nursing program was most often proposed by the college or university administration. The main

reasons given for the proposed downsizing were cost of the program to the institution and decreased enrollments.

The nature of the downsizing proposed and that actually taking place was consistent and focused on decreasing the undergraduate enrollment and faculty. Reductions in clerical staff also occurred in 31 of the programs downsized. Administraive positions were reduced in 17 programs and graduate assistant or work study support decreased in 10 settings.

When asked if the level of financial support for their programs had increased proportionately with other units across the campus since the downsizing had taken place, 37 respondents indicated that it had while ten said that it had not.

A profile of the generic baccalaureate nursing programs proposed for downsizing is provided in Table 76. Those programs proposed for downsizing differ from the majority of respondents only in type of institutional control, size of enrollment in first level nursing courses (average was 50-99 students) and in whether the maximum number of students was admitted to the nursing courses (54 percent of the respondents did admit their maximum numbers allowed).

The programs that were actually downsized differed from the ones proposed only in student enrollment in the first level nursing courses. The majority of programs proposed had an enrollment of 49 or fewer students while those actually downsized were evenly divided between those with enrollments of less than 49 and those with 50-99 students.

The profile of the chief executive officer in programs proposed for downsizing and those actually downsized does not differ from the profile of the average respondent whose programs was not proposed for downsizing.

Table 76. Profile of Generic Baccalaureate Nursing Programs Proposed for Downsizing

Characteristics of Parent Educational Institution:
Private Control
In Midwest NLN Geogrpahic Region
Aged 50 years or more
Full-time equivalent student enrollment under 5,000
Characteristics of Generic Baccalaureate Nursing Program:
11-19 years old
Full-time equivalent enrollment in first level nursing course in 1984-85 of 49 or fewer students
Has not admitted the maximum number of students to the first level nursing courses over the past five years

Scores for each cell of the Levine typology of causes of decline were basically the same for those programs proposed for and not proposed for downsizing (Table 68). If fractions were rounded, the only area that would be different is political vulnerability. In that section, the mean score of the programs proposed for downsizing would be two points higher than those not proposed for downsizing.

Program Discontinuance

Program discontinuance was defined as the merger of related programs, elimination of certain degrees or progams within departments, or the closing of entire departments or units. In this study, ten respondents indicated that their programs had been proposed for discontinuance with two actually being discontinued. Both programs that were discontinued had also been downsized. One of the programs proposed for discontinuance had not been proposed for downsizing. In seven of the ten institutions where the nursing programs had been proposed for discontinuance, other

programs in the institution had also been proposed for discontinuance. Other programs were discontinued in two of these institutions.

The characteristics of the generic baccalaureate nursing programs that were discontinued are noted in Table 77. One of the two respondents whose nursing program had been discontinued stated that the program was an associate degree program, not a generic baccalaureate nursing program; therefore, only one generic baccalaureate nursing program had actually been discontinued. This program was located in a private institution in the Southern National League for Nursing geographic region. The full-time equivalent institutional enrollment was less than 5,000. The generic baccalaureate nursing program was 11-19 years old with a full-time equivalent student enrollment in the first level nursing courses of forty-nine or less. The maximum number of nursing students allowed had not been admitted each year for the last five years. The mission statement in the institution where the nursing program was discontinued did not address baccalaureate level professional education. The profile of the chief executive officer in the program discontinued did not differ from that profile for all chief executive officers who responded to the study.

The scores for the causes of decline as described by Levine were approximately equivalent with those programs proposed for discontinuance and actually discontinued, and with those programs not proposed for discontinuance (Table 72). The only area where scores differed by other than fractions was in the area of political vulnerability where the mean score was three points higher then the mean score for those programs not proposed for downsizing or discontinuance.

Table 77. Characteristics of the Generic Baccalaureate Nursing Programs Proposed for Discontinuance

Characteristics of Parent Institution
Private Control
Located in Midwest NLN Geogrpahic Region
Aged 50 years or more
Full-time equivalent student enrollment under 5,000
Characteristics of Generic Baccalaureate Nursing Program
Aged 39 years or less
Full-time equivalent student enrollment in first level nursing courses of 49 or less
Did not admit maximum number of students to first level nursing courses over last five years

Scoring

The mean scores for each cell of Levine's model for all programs including those that were proposed for downsizing and discontinuance and those that actually were downsized and discontinued are contained in Table 78. As the total number of respondents in each group decreases, the scores may also become more skewed.

Mean scores in the section on political vulnerability fell below the midpoint in the range for all respondents except those proposed for discontinuance. The mean scores for those programs proposed for downsizing and discontinuance were above the mean scores for those programs proposed for neither action. Scores lower than the mean would indicate that the respondent's program was not politically vulnerable, yet several severe problems were identified in this section.

The mean scores for the section in environmental entropy were all above the midpoint in the range. The mean was lower for those programs proposed for discontinuance than for those proposed for downsizing.

Table 78. Mean Scores for Each of Levine's Causes of Decline for Generic Baccalaureate Nursing Program Proposed for Downsizing or Discontinuance and Those Not Proposed for Either

		MEAN SCORES				
			Downsizing		Discontinuance	
Cause of Decline	Midpoint in Possible Range	All Respondents N=185	Proposed N=54	Occurred N=48	Proposed N=10	Occurred N=2
Political Vulnerability	54	52.27	53.47	53.70	55.42	54
Problem Depletion	15	13.12	12.09	12.02	12	12.01
Environmental Entropy	68.5	73.52	73.94	74.14	72.16	69
Organizational Atrophy	66	64.73	65.03	65	65.80	61

A score above the mean would indicate that the external environment was not as supportive of generic baccalaureate nursing education as it had been previously.

Mean scores for all classes of respondents fell below the midpoint in the range for organizational atrophy, thus indicating that the administrative climate was neither supportive or not supportive but rather probably more focused on the status quo.

The mean scores for all calsses of respondents were below the midpoint in the area of problem depletion. The scores for those respondents whose programs had been proposed for downsizing or discontinuance were lower than the scores for those respondents whose programs had not been proposed for either.

Mamangement Tactics

The rank order of management tactics selected by all respondents not proposed for downsizing or discontinuance is presented in Table 60. The tactics are divided into the responses chosen to address problems or issues in each cell of Levine's model.

There was no one management tactic that was selected consistently as first choice across all causes of decline. The enactive approach was selected more often than any other as the first choice with the proactive being selected as the last choice in three out of four categories.

There were no consistent choices of management tactics by whether the cause of the decline originated internal (political vulnerability and organizational atrophy) or external (problem depletion and environmental entropy) to the organization.

When responses in Table 60 are compared with those in Tables 70 and 73, no clear patterns emerge. The first choice of all groups is the same in the areas of political vulnerability, problem depletion, and environmental entropy.

Factor Analysis

A factor analysis was attempted on the items contained in Table 11. The items did not cluster into the discrete groups as defined in the study. This may have been due to the factual nature of the questions; the wide range of answer choices or the fact that there were only subtle differences in many questions in different areas. The concepts as defined by Levine had not been subjected to factor analysis or the results had not been shared in any previous writings.

Incidental Findings

Cost and enrollment questions were pulled from all categories of causes of decline and cross tabulated with whether or not the generic baccalaureate nursing program had been proposed for downsizing. This cross-tabulation showed that those programs that had been proposed for downsizing had greater numbers of older generic baccalaureate nursing students; more students with decreasing grade point averages; and fewer pre-nursing majors. Greater numbers of programs proposed for downsizing had already initiated satellite programs for generic baccalaureate nursing students and registered nurse students. More programs proposed for downsizing were also located in states where the present supply of generic baccalaureate nursing graduates exceeded the present need or demand.

In relation to cost information, programs proposed for downsizing had more chief executive officers who were unaware of all components figured

in the cost data while at the same time had more chief executive officers who also figured their own data. More programs proposed for downsizing had higher program costs than other professional programs in their institution. When looking at faculty workload, more programs that had been proposed for downsizing had fewer faculty regularly assigned to committee work, research and scholarly or public and community service as a part of their regular assignment.

CHAPTER IV

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CHAPTER V

SUMMARY, CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

SUMMARY

Problem Statement

The problem addressed in this study was that of the decline currently affecting some segments of higher education and generic baccalaureate nursing education. The study was designed to identify the current and future types of decline facing generic baccalaureate nursing programs, identify the causes of the decline, develop a predictive tool or assessment guide that could be used to assess a generic baccalaureate nursing program's potential for decline, identify management strategies that were used to address decline, identify the number and types of generic baccalaureate nursing programs that had been proposed for or actually experienced program downsizing or discontinuance, and determine if there were differences in the management strategies used in those programs that had and had not been proposed for or actually experienced program downsizing or discontinuance.

Design

For this descriptive study, a questionnaire was mailed to 345 chief executive officers of National League for Nursing accredited generic baccalaureate nursing programs located in the continental United States. This constituted the entire population of the group under study. The

overall response rate was 67 percent with 54 percent of those being usable. Respondents from all National League for Nursing geographic regions of the United States were well represented.

The study and questionnaire were developed around three main topics: decline, higher education and nursing education. Levine's model depicting the causes of decline served as one base for the study.[1] Cameron and Zammuto's model which describes various types of decline and management actions that may be taken to address them served as another base for questions.[2] Criteria used for assessing academic programs for possible downsizing or discontinuance were culled from the literature and incorporated into the questionnaire. The general information about decline and higher education was then focused on and adapted to generic baccalaureate nursing education.

FINDINGS

The findings will be presented in response to each proposed problem statement and subproblem as well as in response to major issues noted by the majority of respondents.

Decline

Erosion was the major type of decline identified by respondents as present now and projected over the next five years. Erosion is the gradual reduction of resources needed to support the current level of activity and output and implies that the current output is appropriate. A much smaller but consistent number of respondents identified contraction as another type of decline of current and future concern. Contraction is the sudden reduction of resources needed to sustain the present

level of activity or output. In contraction, the current output is also appropriate.

Decline was most frequently identified as a problem in those generic baccalaureate nursing programs located in the North Atlantic and Midwest National League for Nursing geographic regions. It is more common in private educational institutions with a full-time equivalent enrollment of 10,001 to 15,000 and 20,001 to 25,000. Most affected generic baccalaureate nursing programs were aged ten years or less or forty years or more and had an enrollment of 50-99 students in their first level nursing courses.

Causes of Decline

Using Levine's model of causes of decline, the area of environmental entropy received the highest scores. A high score in this area meant that the environment external to the organization was not supportive or not as supportive of generic baccalaureate nursing education as in the past or that the respondent did not recognize or assess environmental factors. The area with the lowest score was that of problem depletion which indicates that societal refocusing or redefining of aspects which may impact generic baccalaureate nursing education is not considered a problem. The scores for the areas of political vulnerability and organizational atrophy clustered around the midpoint in those ranges.

There were major problem areas identified from the responses to the causes of decline. First, enrollments in generic baccalaureate nursing programs are decreasing as was indicated by the fact that only 54 percent of the respondents state that they had admitted the maximum number of students allowed to their first level nursing courses each year over the last five years. Fifty-three percent of the respondents indicated that

they had experienced a decline in the number of pre-nursing majors. The typical generic baccalaureate nursing student is also becoming older and requesting more part-time study.

A second area of concern was the program costs. Forty-four percent of the respondents stated that their generic baccalaureate nursing programs cost more than other professional programs in their institution. Forty-three percent of the respondents said that their programs costs were as low as they could be while 62 percent said that they did not have annual program cost data available to them. Forty-nine percent said that they were aware of almost all of the components figured in the program cost data. Information obtained revealed that chief exeuctive officers believed that current faculty workloads were appropriate despite the fact that 20 percent of the respondents had a faculty-student ratio of 1:15 or less for classroom instruction and 44 percent had a faculty-student clinical ratio of 1:8 or less. Use of audiovisual media or computers had increased while direct faculty time had decreased in teaching in only 24 percent of the respondent's programs over the last five years.

Faculty preparation and participation in research and scholarly activities was a third area of concern. Seventy-five percent of the respondents indicated that they had fewer doctorally prepared faculty in their programs than other professional programs in their institutions, while 86 percent said they had fewer doctorally prepared faculty than other non-professional programs in their institutions. In 61 percent of the respondent's programs, 19 percent or less of the faculty in their generic baccalaureate nursing programs held doctorates while the respondents believed that 50 percent or more of the faculty

should have doctorates. Ten percent or less of the faculty had been the principal investigator in externally funded research while 19 percent or less had published in 46 to 77 percent of the respondent's programs. Fifty-six percent of the chief executive officers believed that over 50 percent of the faculty should have published and 10 to 39 percent should have been principal investigators.

A fourth area of concern was curriculum issues focusing on potential lack of availability of the number and type of clinical placement sites needed for student experiences. The majority of respondents indicated that their generic baccalaureate nursing programs did not differ significantly from any other such programs in the state. They also stated that their programs required more contact hours for graduation than other programs in their institutions as well as higher grade point averages for progression and graduation.

Program Downsizing

Fifty-four generic baccalaureate nursing programs included among the respondents to the study had been proposed for downsizing within the past five years. Forty-eight of those programs had actually been downsized.

Downsizing was usually proposed by the institutional administration for the reason of the high cost of the nursing program to the institution. The second most common reason was low enrollment. Reductions in undergraduate students and faculty were also frequently accompanied by reductions in the clerical staff. Following the downsizing, 37 respondents indicated that the level of financial support for the nursing program had increased proportionately with other units across the campus.

A profile of those generic baccalaureate nursing programs proposed for downsizing revealed they are located in the Midwest in a private institution aged 50 years or more. They have a full-time equivalent student enrollment under 5,000. The nursing program is 11-19 years old with a student enrollment in the first level nursing courses of 49 or less. The nursing program has not admitted the maximal number of students allowed to its first level nursing courses over the last five years. The profile of the generic baccalaureate nursing programs actually downsized differs from this only in that the full-time equivalent student enrollemnt in first level nursing courses was evenly divided between 49 and fewer students and 50 to 99 students.

Programs that had been proposed for downsizing also had greater numbers of older generic baccalaureate nursing students; more student with a decreasing grade point average; and fewer pre-nursing majors. Greater numbers of programs proposed for downsizing had already initiated satellite programs for generic baccalaureate nursing students and registered nurse students. More programs proposed for downsizing were also located in states where the present supply of generic baccalaureate nursing graduates exceeded the present need or demand.

In relation to cost information, programs proposed for downsizing had more chief executive officers who were unaware of all components figured in the cost data while at the same time had more chief executive officers who also figured their own data. More programs proposed for downsizing had higher program costs than other professional programs in their institution. When looking at faculty workload, more programs that had been proposed for downsizing had fewer faculty regularly assigned to

committee work, research and scholarly or public and community service as a part of their regular assignment.

Scores in each cell of Levine's typology of causes of decline did not differ significantly from those for all respondents. The score in the political vulnerability section was two points higher than all respondents. The pattern of management tactics chosen to address the causes of decline was the same as all respondents only in the first choice for political vulnerability, problem depletion and environmental entropy. The reactive mode was the first and second choice of responses in all areas.

Program Discontinuance

Of the 185 respondents, ten indicated that their programs had been proposed for discontinuance and one generic baccalaureate nursing program had actually been discontinued. That program was located in a private institution in the South. The institution was 50 years or more old with a student enrollment of under 5,000. The generic baccalaureate nursing program was aged 11 to 19 years, with a full-time equivalent student enrollment in the first level nursing courses of 49 or less. The nursing program had not had the maximum number of students allowed admitted over the past five years.

Scores in the cells of Levine's causes of decline for those generic baccalaureate nursing programs proposed for discontinuance did not differ significantly from those of all respondents or those programs proposed for downsizing. The mean score in the section on political vulnerability was three points higher than for all respondents. The first choice of management tactics selected by those respondents proposed for discontinuance was

the same as for those proposed for downsizing. No other pattern of similarities emerged.

Scoring

The mean scores for all three segments of respondents was just below the midpoint in the range in all categories of causes of decline except environmental entropy. The mean scores in environmental entropy were four to five points about the midpoint for the range.

Factor Analysis

A factor analysis was attempted on the items contained in Table 11. The items did not cluster into the discrete groups as defined in the study. This may have been due to the factual nature of the qeustions; the wide range of answer choices or the fact that there were only subtle differences in some questions in different areas. The concepts as defined by Levine had not been subjected to factor analysis or the results had not been shared in any previous writings.

Management Tactics

The managment tactics selected by the three groups of respondents showed the following similar patterns: the first choice of all groups in the political vulnerability section was the reaction tactic; for problem depletion the experiemtnal approach was selected first by all groups; and in the area of environmental entropy the enactive approach was the first choice for all groups of respondents. There were no other identifiable patterns.

IMPLICATIONS/CONCLUSIONS

The interpretations and conclusions will be presented in a format which addresses the problem and supbroblem statements.

Decline

Decline is a common problem now being experienced in generic baccalaureate nursing programs and will become an increasing problem to more programs over the coming five years. The major type of decline being experienced and anticipated is erosion. While a greater incidence of decline was identified in the North Atlantic and Midwest regions, it was common in all geographic areas. More private than public educational institutions were affected, but the incidence was high in both types. While certain enrollment levels for institutions and generic baccalaureate nursing programs showed a higher incidence of decline than others, all sizes of institutions and programs were affected.

Scoring on Causes of Decline

Scores for the causes of decline revealed mean scores higher than the midpoint in the range only for environmental entropy. This indicates that the respondents believe that the external environment is not as supportive as it has been. Mean scores in the areas of political vulnerability and organizational atrophy were just below the midpoint in the ragne. The mean scores in the area of problem depletion were well below the midpoint.

Since the mean scores for three of the four causes of decline clustered around the midpoint in the range, it would seem that either: there are no major problems in those areas; the tool was not sensitive enough to pick up problems; or the scoring was not appropriate enough to identify problem areas. In view of the number and severity of the problem areas identified, it would seem that the problem was more in the scoring than the sensitivity. Factors contributing to the major problem areas were spread across all four causes of decline.

Another interpretation of scores at the midpoint is that the respondents consider some aspects of problems and others not, thus presenting a neutral picture. If this line of reasoning is applied to the area of organizational atrophy where the respondent's scores were just and the mean of the potential range, then one could also interpret the socre as a desire to maintain the status quo. Thus rather than saying that the administrative climate is supportive in some areas and not in others, one could say that the administrative focus is on maintaining the status quo.

Through use of the questionnaire, the chief executive officers were able to identify four problem areas which are or should be of current and future concern. The major problem areas identified were: decreasing enrollments; high program costs; academic preparation and research and scholarly productivity of faculty at lower levels than were deemed appropriate; and curriculum and student placement problems in the future. These problem areas have their origins both internal and external to the organization.

Any one of these problem areas with the possible exception of faculty preparation, is sufficient to pose a threat to the stability and continued functioning of a generic baccalaureate nursing program. What most respondents indicated is that they were faced not with one but with some combination of these problems thus increasing the complexity and severity of the problems and solutions. These problems were common across all respondents whether or not their programs had been proposed for downsizing or discontinuance.

Management Tactics

The pattern of management tactics selected for use was different, except in selected cells, for all three groups of respondents (those whose programs had not been proposed for downsizing or discontinuance, those whose programs had been proposed for downsizing and those whose programs had been proposed for discontinuance). The area of greatest similarity across all three groups of respondents was in the first choice of tactics selected in the areas of poliitical vulnerability, problem depletion and environmental entropy. There were no identifiable patterns of management tactics selected by whether the cause of decline was internal or external to the institution.

Modes of response selected as first choice in various causes of decline by two groups of respondents include reactive and enactive. The experimental approach was the first choice once while the proactive tactic was not selected as the first choice by any group. The proactive response was most often selected as the last choice.

Program Downsizing

Twenty-nine percent of the respondent's programs had been proposed for downsizing with 26 percent of these acutally being downsized. Any pheonomonen that affects one-quarter of the respondents needs to be considered a problem of practical significance. Since the criteria most commonly used to review academic programs for downsizing are identified in this study, it would seem that all chief exeuctive officers would want to review them and incorporate them into their future planning. While there is a profile of more vulnerable generic baccalaureate nursing programs, program downsizing is common enough that it should concern all chief executive officers.

Since past data as to the number and type of generic baccalaureate nursing programs porposed for downsizing are not available, it is not possible to identify if the number of programs proposed for and actually experiencing downsizing identified in this study is more less than in the past.

The mean scores for three of the four causes of decline were similar for those programs proposed for downsizing and those not proposed. The area of environmental entropy contained respondent's scores with the greatest variations from the mean. Respondent's scores were up to six points higher thus indicating that the current external environment was not supportive of generic baccalaureate nursing programs. The first choice of management tactics chosen to address problem areas differed from those of respondents whose program were not proposed for downsizing only in the area of organizational atrophy.

Program Discontinuance

Program discontinuance is not a significant problem at this time. Only ten respondents indicated that their generic baccalaureate nursing programs had been proposed for discontinuance within the past five years, and only one program had acutally been discontinued. This is a small number, as it should be, since it represents the most severe and extreme action that can be taken. Since the number of programs proposed for discontinuance is so small, an accurate profile is not readily obtainable. Since nine of the ten programs proposed for discontinuance had also been proposed for downsizing, any program proposed for downsizing should also be considered a candidate for possible discontinuance. The criteria presented in the study that are used to review

academic programs for possible downsizing should also be used to determine if a program is a candidate for discontinuance.

The scores as to the causes of decline did not differ significantly for those respondents whose programs had and had not been proposed for discontinuance except in the area of environmental entropy where scores were higher. The first choice of management tactics selected for use by those respondents whose programs had been proposed for discontinuance was the same as the first choice of those respondents whose programs had been proposed for downsizing. This was also the same for three of the four causes of decline of those respondents whose programs had not been proposed for either downsizing or discontinuance. No other specific pattern of management emerged to distinguish this group from the other two groups of respondents.

IMPLICATIONS

Nursing Education Administration

It seems evident from the study findings that decline in generic baccalaureate nursing programs is and will continue to be a significant problem. As the erosion of resources continues, more direct and forceful management actions must occur if many of these programs are to remain viable. In view of the prevalence of decline, now and in the future, chief executive officers must become familiar with management responses geared toward the causes of decline and begin using these. The most common causes of decline were high costs and low enrollments.

Respondents seemed least able or willing to take action to address high program costs. This was exhibited by the findings which indicated

that despite high program costs, many respondents indicated that these costs were as low as they could be when: they were not aware of all of the components computed in the cost figures; faculty-student ratios for both classroom and clinical teaching in 20 to 44 percent of the institutions were below national standard levels; and research scholarly activity is computed as a part of faculty workload in 54 percent of the programs while the percentage of faculty actually participating in these activities is 19 percent or less. At the same time, use of audiovisual means or computers to replace personal instruction has occurred in only 24 percent of the respondent's programs over the last five years.

In the area of decreasing enrollments, managment approaches were mixed. Respondents identified that changes in various societal views and definitions of health care, financing, and higher education may negatively impact future enrollments, but that they had no specific plans identified to address these problems. At the same time respondents indicated that pre-nursing enrollments were down and they were not able to admit the maximum number of students to the first level nursing courses that they could. Respondents also indicated that their student body was becoming older and requesting more part-time study. In response to these statements, chief executive officers indicated that more part-time students were being admitted; that they were maintaining or decreasing enrollment of the traditional college-age student while increasing their focus on non-traditional students or approaches; and that their recruitment efforts have remained basically the same. These approaches contradict each other.

Chief executive officers must not only identify the causes of decline but be able to project new and different courses of action to address them. Presently, most of those chief executive officers who have addressed the issue of declining enrollments have chosen to address it through the establishment of off-campus satellite programs for registered nurse students and by taking more registered nurse students into the generic baccalaureate nursing program. While these approaches are sound, if every generic baccalaureate nursing program initiates them, the current registered nurse market will soon be saturated and the problem of decreased enrollments will still be present. Thus more thought must be given to long range solutions. The problems are now known and others can be predicated using the information provided in this study.

Management approaches were also mixed in the area of academic preparation and research and scholarly output. To address the academic preparation of faculty, respondents indicated a very active approach to the problem in that they had implemented plans whereby present faculty could secure doctoral degrees. At the same time, passive responses were selected to increasing research and scholarly output. These included answers that "more research and scholarly work cannot be accomplished until more faculty are doctorally prepared" and "once the faculty member expresses an interest in research and scholarly activity, this can be fostered." Such responses attempt to releive the chief executive officer of having to take action by placing the primary responsibility for action on the faculty member.

Inconsistent responses to various facets of the same problem may indicate a lack of clear understanding of the problem or are unwillingness or inability to address all aspects consistently or a different

interpretation as to the severity of implications of various aspects of the issue. Inconsistent responses may also be perceived as signs of uncertainty or lack of dedication to a course of action on the part of observers. In the long run, inconsistency may result in maintaining the status quo as gains in one area may be offset by losses or no movement in other areas.

Since the decline can now be predicted, there is little reason why the experimental management approach should ever have to be used. The more often and accuratley a unit assesses itself and makes or readjusts its long and short range plans accordingly, the less likely that unit will be severly affected by decline.

The areas to assess are identified in Table 9. Specific questions which can be generated from these topics are included in the survey questionnaire used in this study. Areas of particular concern to chief executive officers are those in Table 7.

The major types of decline identified by respondents reflected a change in niche size not shape, thus implying that the current output or graduate is appropriate, only not in as great a quantity. This view, while accurate in part, may relfect a complacency on the part of chief executive officers which could lead to future difficulty. As long as future health care trends are accurately monitored and curriculum changes are incorporated quickly, there will be no problems. If, on the other hand, current and future changes in health care are not incorporated into the curriculum, the current output will not be marketable. This area of concern is raised because 36 percent of the respondents cover the use of computers in their curriculum only to a limited or no extent while 12 percent cover gerontology only to a limited or

no extent. These are current trends not being addressed, thus the graduate is less prepared for the real world.

Methodology

Discussion is also needed in relation to the scores respondents obtained for the various causes of decline. Since the mean score for all groups of respondents fell at approximately the midpoint on the range for three of the four causes of decline, this would seem to indicate that no major problems exist in these areas. Yet it is clear from the responses that several major problem areas exist for a number of respondents. For the problem areas to be so clearly identified, the questions must be appropriate.

The problem would then seem to be in the assignment of weights or the determination of where in the range the critical point should be located. The area of political vulnerability stands out particularly as one in which there were significant problem areas identified, yet the mean score for respondents fell below the midpoint in the range. Thus, the determination of the critical point in each scale may need to be lowered or the weighting altered.

Research

The findings from this study were consistent with the literature in a number of areas. Private educational institutions are more vulnerable to decline than public ones.[3] The Midwestern and North Atlantic areas project the greatest potential for future decline which is consistent with the Carnegie Commission's prediction of regional enrollment trends in higher education decreasing in these regions.[4] Generic baccalaureate nursing programs under ten years of age noted a high increase in the potential for decline within the coming five years as

did programs aged 40 years and older. These findings are partially consistent with the literature which states that young age increases vulnerability.[5,6]

By size of institution experieincing decline, the literature states that small size increases vulnerability.[7] In this study, the smallest sized institutions did not express the greatest potential for decline, thus not supporting the literature. By size of the generic baccalaureate nursing program, those programs with 99 and fewer students did express the greatest potential for decline thus supporting the literature.

RECOMMENDATIONS

Some questions developed from the items contained in Table 9 need to be refined and validated. The qeustions can then be developed into an assessment list for generic baccalaureate nursing programs to use in determinging their potential for decline.

In the determination of the critical point in the range for each cell of Levine's model of causes of decline needs to be reassessed and lowered. At this time, the nature of the problems identified in the areas are greater than are reflected by the scores.

The items contained in Table 11 did not factor, thus implying that there were no pervasive content domains. The content areas as described in Levine's article are not totally discrete but do have either areas of close relationships or potentially overlap. Thus in future studies, attempts should be made to make these content areas more discrete. The analysis of these data needs to be more powerful through use of

statistical measures such as discriminate analysis, regression analysis or the Guttman scale.

If this study were replicated, the management tactics should be correlated with the various types of decline as described in the Cameron and Zammuto model (Table 3). This would provide a further test of their model of the causes and managment of decline as well as a view of whether the chief executive officers were using appropriate management strategies for each type of decline (according to Cameron and Zammuto).[9]

This researcher found the management approaches as defined by Cameron and Zammuto to be very difficult to use. For example, the distinctions between proactive and enactive appears to be a fine line as to whether or not the plan has been initiated. Thus one may wish to redefine the present management tacitcs or select ones which are more easily and clearly differentiated.

A follow-up research study based on this data would also be of interest. In this study, one could resurvey all schools and compare present and future data. One could also select schools with the lowest and highest scores and determine their future status compared to their present status. Another alternative would be to resurvey those programs which had been proposed for downsizing and a like number that had not and compare these two groups. In essence almost any subset of itmes which were identified as impacting decline (size, age location) could be selected as ways to categorize respondents for future studies.

CHAPTER V

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APPENDICES

APPENDIX A

LIST OF STATES IN EACH NATIONAL LEAGUE FOR NURSING GEOGRAPHIC REGION

LIST OF STATES IN EACH NATIONAL LEAGUE FOR NURSING GEOGRAPHIC REGION

JURISDICTIONS INCLUDED IN THE NLN REGIONS

North Atlantic

Connecticut
Delaware
District of Columbia
Maine
Massachusetts
New Hampshire
New Jersey
New York
Pennsylvania
Rhode Island
Vermont

Southern

Alabama
Arkansas
Florida
Georgia
Kentucky
Louisiana
Maryland
Mississippi
North Carolina
Oklahoma
South Carolina
Tennessee
Texas
Virginia
West Virginia

Midwestern

Illinois
Indiana
Iowa
Kansas
Michigan
Minnesota
Missouri
Nebraska
North Dakota
Ohio
South Dakota
Wisconsin

Western

Arizona
California
Colorado
Idaho
Montana
Nevada
New Mexico
Oregon
Utah
Washington
Wyoming

APPENDIX B

FREQUENCY COUNT FOR EACH ITEM CONTAINED IN QUESTIONNAIRE

FREQUENCY COUNT FOR EACH ITEM CONTAINED
IN QUESTIONNAIRE

SECTION I - DECLINE

1. Given the following types of decline, which, if any, do you see affecting your generic baccalaureate nursing program at this time? (check one)

   32% 1) Stagnation and steady reduction of resources producing conflict over allocation of these decreasing resources. Product of program is acceptable in environment.

   14% 2) Sudden decrease in resources available to support present range of services/programs. Product of program is acceptable in environment.

   3% 3) Output of unit becoming progressively less acceptable to environment; pressure to produce new product.

   1% 4) Output of unit becoming rapidly unnecessary or less acceptable to environment; pressure to produce new product.

   46% 5) Do not see the nursing program in any type of decline.

2. Given the following types of decline, which, if any, do you see affecting your generic baccalaureate nursing program within the next five years? (check one)

   41% 1) Stagnation and steady reduction of resources producing conflict over allocation of these decreasing resources. Product of program is acceptable in environment.

   13% 2) Sudden decrease in resources available to support present range of services/programs. Product of program is acceptable in environment.

   7% 3) Output of unit becoming progressively less acceptable to environment; pressure to produce new product.

   1% 4) Output of unit becoming rapidly unnecessary or less acceptable to environment; pressure to produce new product.

   33% 5) Do not see the nursing program in any type of decline.

SECTION II - POLITICAL VULNERABILTIY

3. In which type of institution are you currently the chief executive officer of a generic baccalaureate nursing program? (check one)

46%	1) Public Univeristy	22%	3) Private University
6%	2) Public College	25%	4) Private College

4. What is the age of the academic institution in which your generic baccalaureate nursing program is located? (check one)

78%	1) 50 years or more	7%	4) 20 - 29 years
5%	2) 40 - 49 years	3%	5) 11 - 19 years
5%	3) 30 - 39 years	1%	6) 10 years or less

5. What is the age of your generic baccalaureate nursing program? (check one)

8%	1) 50 years or more	21%	4) 20 - 29 years
8%	2) 40 - 49 years	35%	5) 11 - 19 years
15%	3) 30 - 39 years	12%	6) 10 years or less

6. What is the FTE student enrollment in your academic institution? (check one)

12%	1) 25,001 or above	15%	4) 10,001 - 15,000
6%	2) 20,001 - 25,000	18%	5) 5,000 - 10,000
7%	3) 15,001 - 20,000	42%	6) less than 5,000

7. Over the last five years has the FTE student enrollment in your institution: (check one)

24% 1) Increased less than 10% per year

11% 2) Increased 10% or more per year

28% 3) Remained basically unchanged

26% 4) Decreased less than 10% per year

10% 5) Decreased 10% or more per year

1% 6) Do not know if increased or decreased

8. Over the last five years, please indicate the FTE enrollment in the first level nursing class in your generic baccalaureate nursing program: (check one for each year)

	250 or more	200-249	150-199	100-149	50-99	0-49
1984-85	7%	6%	9%	19%	33%	23%
1983-84	7%	5%	10%	20%	35%	20%
1982-83	7%	6%	10%	22%	30%	23%
1981-82	7%	6%	9%	21%	30%	23%
1980-81	7%	6%	11%	19%	28%	24%

9. Have you admitted the maximum number of students to the first level nursing course each year that you are allowed to admit? (check one)

54% 1) Yes 44% 2) No

10. Over the last five years, which one of the following best reflects your recruitment efforts? (check one)

44% 1) Our recruitment efforts have remained basically the same.

22% 2) Our recruitment efforts have increased with the focus still on the traditional age college student.

32% 3) Our recruitment efforts have refocused from the traditional high school age student to older, part-time, minority, male and/or RN students.

11. Over each of the last five years, what has been the approximate rate of attrition of students at the end of the first year of nursing courses in your generic baccalaureate nursing program? (check one each year)

	0 - 2%	3 - 5%	6 - 8%	9 - 11%	12% or more
1984-85	18%	28%	18%	15%	16%
1983-84	18%	28%	17%	16%	17%
1982-83	21%	26%	19%	17%	13%
1981-82	21%	26%	18%	14%	16%
1980-81	21%	24%	18%	15%	15%

12. Over the last five years, approximately how has the rate of attrition of students in your generic baccalaureate nursing program compared to the overall institutional attrition rate? (check one)

52% 1) Lower than institutional rate

14% 2) Same as institutional rate

9% 3) Higher than institutional rate

24% 4) Do not know

13. Which of the following best reflects your actions relative to the attrition rate in your generic baccalaureate nursing program? (check one)

47% 1) Our attrition rate is as low as possible; no different action is planned.

10% 2) Our attrition rate is low but can be lowered through a plan that is now ready for implementation.

10% 3) Our attrition rate has been lowered through a new plan which has been enacted within the past twelve months.

31% 4) Our attrition rate could be lower but we have no specific plan to enact at this time.

14. Approximately what is the current student:faculty ratio for classroom teaching in your generic baccalaureate nursing program? (check one)

37% 1) 1:35 or above

10% 2) 1:30

15% 3) 1:25

18% 4) 1:20

12% 5) 1:15

8% 6) 1:10 or less

15. Do you believe that the student:faculty ratio for classroom instruction in your generic baccalaureate nursing program should: (check one)

19% 1) Increase (more students:faculty)

70% 2) Remain the same

10% 3) Decrease (less students:faculty)

16. Which one of the following best reflects your actions relative to students:faculty classroom ratios? (check one)

68% 1) The ratios are appropriate; no future action is planned.

16% 2) The ratios will have to be increased/decreased, but at present we have no plan to address this.

11% 3) The ratios will have to be increased/decreased and we have a plan enacted to do so.

5% 4) The ratios will have to be increased/decreased and we have a plan ready to enact to do so.

17. Approximately what is your current student:faculty ratio for clinical instruction in your generic baccalaureate nursing program? (check one)

44% 1) 1:8 or less

14% 2) 1:9

38% 3) 1:10

1% 4) 1:11

3% 5) 1:12

1% 6) 1:13 or above

19. Do you believe that the student:faculty ratio for clinical instruction in your generic baccalaureate nursing program should: (check one)

18% 1) Increase (more students:faculty)

70% 2) Remain the same

12% 3) Decrease (less students:faculty)

19. Which one of the following best reflects your actions relative to student:faculty clinical ratios? (check one)

63% 1) The ratios are appropriate; no future action is planned.

17% 2) The ratios will have to be increased/decreased, but at present we have no plan to address this.

15% 3) The ratios will have to be increased/decreased and we have a plan enacted to do so.

6% 4) The ratios will have to be increased/decreased and we have a plan ready to enact to do so.

20. Do you have readily available to you annual data on the cost per graduate or per student credit hour for your generic baccalaureate nursing graduates? (check one)

37% 1) Yes

62% 2) No

21. Which of the following are true for you relative to the cost per graduate or student credit hour? (check each one)

	Yes	No
1) I am aware of almost all of the components figured.	49%	26%
2) I supply information used to compute the cost.	41%	32%
3) I figure the cost.	11%	51%

22. How does the cost per graduate or student credit hour for your generic baccalaureate nursing program compare with other baccalaureate programs in your institution? (check one)

9% 1) Less than most professional programs.

24% 2) Approximately the same as most professional programs.

44% 3) More than most professional programs.

11% 4) Nursing is the only professional program.

23. Which one of the following most reflects your current thinking? (check one)

43% 1) The cost/student or student credit hour in our nursing program is as low as it can get.

22% 2) The cost/student or student credit hour can be lower and we have initiated ways to lower that cost.

28% 3) The cost/student or student credit hour can be lower but we do not have a current plan to lower that cost.

24. Over the past five years, what has been the trend in the number of student credit hours generated in other departments by generic baccalaureate nursing students? (check one)

27% 1) Increased

51% 2) Remained the same

17% 3) Decreased

4% 4) Do not know

25. What percent of your baccalaureate level nursing courses are open to non-nursing major students? (check one)

2%	1) 20% or more	7%	4) 6 - 10%
2%	2) 16 - 20%	54%	5) 1 - 5%
4%	3) 11 - 15%	32%	6) none

26. How many non-nursing students annually enroll in generic baccalaureate nursing courses open to non-nursing majors? (check one)

2%	1) 100 or more	2%	4) 40 - 59
1%	2) 80 - 99	9%	5) 20 - 39
2%	3) 60 - 79	64%	6) less than 20

27. What percentage of your nursing faculty serve on each of the following: (check one on each line)

	Over 25%	21-25%	16-20%	11-15%	6-10%	0.5%
1) Inter-departmental Committees	59%	8%	5%	5%	8%	11%
2) Institution-wide Committees	43%	15%	14%	11%	12%	5%
3) Institutional Level Governance Systems	18%	6%	6%	13%	20%	33%

28. Which of the following best reflects your current thinking? (check one)

0% 1) In view of the present work schedule of the faculty, they do not have the time or opportunity to serve on institution-wide committees.

77% 2) While the present work schedule of the faculty is heavy, we do strongly encourage faculty to seek positions on institution-wide committees.

21% 3) Adjustments are made in departmental committee assignments for those faculty serving at the institutional level as one means of encouraging participation outside of this unit.

29. What is the position of the mission statement of your institution relative to each item listed: (check each item

	Strongly Supports	Supports	Does Not Address	Do Not Know
1) Baccalaureate level professional education	72%	22%	6%	0%
2) Research and scholarly activity of faculty	43%	50%	6%	1%
3) Public and community service	53%	42%	4%	1%

30. To what extent do you believe your generic baccalaureate nursing program reflects the institutional mission? (check one)

86% 1) Strongly reflects (go to Question 32)

11% 2) Moderately reflects (go to Question 31)

2% 3) Minimally reflects (go to Question 31)

0% 4) Does not reflect (go to Question 31)

31. Which of the following best reflects action you are taking to achieve a better match between your program and the institutional mission statement? (check one)

38% 1) We are not currently undertaking action to change our program or our mission statement.

10% 2) We have one or more changes ready to implement in our program which will bring us more in line with the institutional mission statement.

1% 3) We are seeking changes in the institutional mission statement which will recognize our type of program.

SECTION III - PROBLEM DEPLETION

To what extent do you believe each of the following is having an impact on present enrollment in your generic baccalaureate nursing program? (check one option for each question 32-36)

	No Impact	Moderate Negative Impact	Strong Negative Impact	Do Not Know
32. Publicity that a college degree may not noticeably increase earning power.	53%	24%	4%	18%
33. Increased occupational opportunities open to women.	18%	44%	32%	4%
34. Publicity about there no longer being a shortage of registered nurses.	22%	49%	22%	6%
35. Publicity about wages paid to registered nurses being lower than some other professions.	24%	50%	20%	5%
36. Publicity about hospitals potentially having to close units due to low occupancy or cost containment.	19%	48%	22%	11%

To what extent do you believe each of the following will have an impact on future enrollment in your generic baccalaureate nursing program? (check one)

	No Impact	Moderate Negative Impact	Strong Negative Impact	Do Not Know
37. Publicity that a college degree may not noticeably increase earning power.	40%	39%	10%	10%
38. Increased occupational opportunities open to women.	12%	41%	41%	5%
39. Publicity about there no longer being a shortage of registered nurses.	10%	52%	34%	2%
40. Publicity about wages paid to registered nurses being lower than some other professions.	14%	49%	32%	4%
41. Publicity about hospitals potentially having to close units due to low occupancy.	10%	44%	38%	7%

42. In what way are you addressing each of the following? (check one on each line)

		Do Not Consider It a Problem	May Have To Do Something, but Am Not Sure What Yet	Have a Definite Plan Ready to Implement	Have Implemented a Plan To Address Problem
1)	Publicity that a college degree may not noticeably increase earning power.	52%	31%	3%	9%
2)	Increased occupational opportunities open to women.	20%	54%	11%	10%
3)	Publicity about there no longer being a shortage of registered nurses.	13%	56%	14%	12%
4)	Publicity about wages paid to registered nurses being lower than some other professions.	20%	61%	10%	5%
5)	Publicity about hospitals potentially have to close units due to low occupancy.	15%	59%	10%	11%

SECTION IV - ENVIRONMENTAL ENTROPY

43. To what extent do you use each of the following mechanisms to predict the future student enrollment trends? (check each option)

		To a Great Extent	To Some Extent	To Limited Extent	Do Not Know
1)	Statewide birth rate.	9%	23%	21%	42%
2)	Statewide figures regarding percentages of high school graduates attending college.	24%	34%	25%	15%
3)	Statewide figures on college/ univeristy enrollment.	25%	41%	21%	11%
4)	Statewide figures on enrollment/graduations of generic baccalaureate nursing students.	18%	42%	24%	14%
5)	National figures on enrollments/ graduations of generic baccalaureate nursing students.	21%	36%	29%	13%

44. Over the last five years, have any of the following occurred in your generic baccalaureate nursing programs? (check one on each line)

		Yes	No
1)	Age of entering generic baccalaureate nursing students has increased.	72%	27%
2)	Grade point average of students applying to generic baccalaureate nursing programs has dropped.	41%	57%
3)	Student requests for part-time study have increased.	69%	30%
4)	Number of pre-nursing majors has decreased.	53%	41%
5)	Number of pre-nursing majors has increased.	24%	64%

45. Do you currently: (check one on each line)

		Yes	No
1)	Admit part-time students into your generic baccalaureate nursing program.	84%	16%
2)	Admit graduate/registered nurse students into your generic baccalaureate nursing program?	94%	6%
3)	Have any type of off-campus satellite program for generic baccalaureate nursing students.	13%	85%
4)	Have any type of off-campus satellite program for graduate/registered nurse students?	36%	62%

If yes for all, go to Question 47.
If no in any area, go to Question 46.

46. Do you have <u>future</u> plans to: (check one on each line)

		Yes	No
1)	Admit part-time students into your generic baccalaureate nursing program.	48%	17%
2)	Admit graduate/registered nurse students into your generic baccalaureate nursing program?	55%	8%
3)	Have any type of off-campus satellite program for generic baccalaureate nursing students?	12%	72%
4)	Have any type of off-campus satellite program for graduate/registered nurse students?	36%	41%

47. What impact do you believe each of the following factors will have on future enrollment in your generic baccalaureate nursing program? (check one on each line)

		No Impact	Strong Negative Impact	Slight Negative Impact
1)	Decrease in numbers of traditional college age students.	17%	32%	49%
2)	Decrease in federal money for student aid.	7%	62%	30%
3)	Increased tuition/room and board rates.	14%	42%	43%
4)	Changes in federal financing of health care delivery.	15%	43%	39%

48. Which of the following best reflects action your program has taken over the past five years? (check one)

17% 1) We have chosen to maintain our undergraduate focus totally on the traditional age, full-time college student and to maintain or slightly decrease enrollment.

14% 2) We have chosen to maintain our undergraduate focus totally on the traditional age, full-time college student and to increase enrollment levels.

55% 3) We have chosen to maintain but decrease our enrollment of traditional age, full-time college student and add/expand one or more of the following: graduate program; graduate/registered nurse completion program; off-campus program; weekend/evening studies program; external degree program.

1% 4) We have chosen to phase-out our generic undergraduate nursing program for traditional age, full-time students and substitute/expand one or more of the following in its place: graduate program; graduate/registered nurse completion program; external degree program.

49. Which of the following best reflects action your program will take over the coming five years? (check one)

8% 1) We will/may choose to maintain our undergraduate focus totally on the traditional age, full-time college student and to maintain or slightly decrease enrollment.

10% 2) We will/may choose to maintain our undergraduate focus totally on the traditional age, full-time college student and to increase enrollment levels.

65% 3) We will/may choose to maintain but decrease our enrollment of the traditional age, full-time college student and add/expand one or more of the following: graduate program; graduate/registered nurse completion program; off-campus program; weekend/evening studies program; external degree program.

3% 4) We will/may choose to phase-out our generic baccalaureate nursing program for traditional age, full-time students and substitute/expand one or more fo the following in its place: graduate program; graduate/registered nurse completion program; off-campus program; weekend/evening studies program; external degree program.

50. Are any of the following statewide mechanisms present in your state? (check one on each line)

		Yes	No
1)	A formal statewide nursing education plan which is the base for determing admissions to generic baccalaureate nursing programs.	10%	86%
2)	A voluntary but binding understanding among baccalaureate nursing program administrators to limit enrollments to meet state needs.	2%	94%
3)	A mandatory system dictating number, types and locations of generic baccalaureate nursing programs and/or enrollment levels in these programs.	8%	89%
4)	A voluntary effort between employer representatives and educators to meet, but not exceed, statewide registered nurse needs.	7%	89%
5)	A voluntary effort among educational institutions in state to provide and coordinate baccalaureate nursing education for current graduate/registered nurses.	32%	66%

51. In your opinion, which of the following is most reflective of your state? (check one)

44% 1) The number of graduates from educational institutions in the state providing generic baccalaureate nursing education is less than the state need or demand.

37% 2) The number of graduates from educational institutions in the state providing generic baccalaureate nursing education is well matched with the state need or demand.

18% 3) The number of graduates from educational institutions in the state providing generic baccalaureate nursing education exceeds the state need or demand.

52. Approximately what percentage of your generic baccalaureate graduates secure their first nursing position in your state each year? (check one)

58% 1) 80% or above

19% 2) 60 - 79%

12% 3) 40 - 59%

5% 4) 20 - 39%

3% 5) Less than 20%

3% 6) Do not know

53. Does your generic baccalaureate nursing program differ significantly from other generic baccalaureate nursing programs in your state in any of the following ways? (check each item)

		Yes	No
1)	Focus of curriculum (i.e.: health vs. illness, inpatient vs. outpatient, etc.)	25%	74%
2)	Curriculum design (i.e.: lockstep vs. flexible, ease of entry/re-entry, 3 years or 2 years of nursing courses, etc.)	35%	64%
3)	Amount of independent study available in required courses.	16%	79%
4)	Type of clinical facilities/experiences used.	26%	72%

54. Which of the following mechanisms do you use at least annually to obtain input from present or potential employers for the purpose of curriculum revision? (check each one)

		Yes	No
1)	Broad-based community advisory committee.	37%	57%
2)	Meetings with representatives from agencies where students have current clinical experiences.	96%	3%
3)	Nursing alumni.	76%	20%
4)	Current employers of nursing program graduates.	88%	10%

55. Which of the following are or are not concerns for your program at this time? (check each one)

		Is Present Concern	Is Not Present Concern
1)	Agencies limiting numbers of students they will accept for clinical placement.	68%	32%
2)	Agencies instituting charges for clinical placement of students.	18%	82%
3)	Lack of clinical facilities to model new and emerging nursing roles.	52%	48%
4)	Lack of clinical facilities where new techniques/technology is in use.	20%	80%
5)	Lack of sufficient ambulatory and/or wellness-oriented facilities for clinical placements.	39%	61%

56. Which of the following do you believe will or may be <u>future</u> concerns for your program? (check each one)

	Will Be Concern	May Be Concern	Will Not Be Concern
1) Agencies limiting numbers of students they will accept for clinical placements.	62%	28%	10%
2) Agencies instituting charges for clinical placement of students.	35%	51%	13%
3) Lack of clinical facilities to model new and emerging nursing roles.	38%	34%	26%
4) Lack of clinical facilities where new techniques/technology is in use.	24%	26%	48%
5) Lack of sufficient ambulatory and/or wellness-oriented facilities for clinical placements.	28%	35%	36%

SECTION V - ORGANIZATIONAL ATROPHY

57. To what extent is each of the following covered in your generic baccalaureate nursing curriculum at this time? (check each one)

	To a Great Extent	To Some Extent	To a Limited Extent	To No Extent
1) Use of Computers.	2%	31%	48%	18%
2) Wellness Concepts.	75%	21%	4%	0%
3) Health Policy.	28%	59%	12%	1%
4) Health Economics.	10%	56%	30%	4%
5) Marketing of Nursing Services.	8%	35%	46%	11%
6) Gerontology.	33%	56%	11%	1%

58. Which of the following is most reflective of the predominate way in which overall decisions are made in your program regarding addition or deletion of curriculum areas to insure program relevance to the environment? (check one)

3% 1) Each faculty member or course chairperson is responsible for making these decisions.

96% 2) There are regular large faculty or curriculum meetings were environmental trends and needs are discussed and decisions for change are made.

1% 3) Changes of this nature are made primarily by administration.

59. Over the past five years has faculty time spent personally doing lectures decreased while use of audio-visual materials or computers for the same subjects has increased? (check one)

24% 1) Yes

76% 2) No

60. Which of the following statements about faculty workload most apply to your institution and generic baccalaureate nursing program? (check each one)

	Yes	No
1) Workload for faculty in the institution is figured on a standard formula.	50%	44%
2) Workload for faculty in the institution is determined as a part of the collective bargain process.	18%	72%
3) Faculty workload in the generic baccalaureate nursing program is figured on a formula individualized to our department.	58%	36%
4) Faculty workload in the generic baccalaureate nursing program is currently comparable to other baccalaureate programs throughout this insititution.	30%	59%
5) Faculty workload in the generic baccalaureate nursing program is currently greater than most other baccalaureate programs in this institution.	51%	36%

61. Which of the following are computed as a part of faculty workload in your generic baccalaureate nursing program? (check each item)

	Yes	No
1) Committee work.	61%	38%
2) Research/scholarly activity.	54%	44%
3) Student advisement.	65%	34%
4) Class preparation time.	56%	42%
5) Clinical preparation time.	56%	42%
6) Clinical practice (exclusive of clinical instruction.	37%	60%
7) Public and community service.	34%	63%

62. Which of the following best reflects your range of options in determining or changing faculty workload? (check one)

5% 1) Since faculty workload is determined through the institution or collective bargaining, there is little I can do to impact it.

34% 2) Though faculty workload is determined through the institution or collective bargaining, I do influence various components at the unit level through mainpulation of assignments and how various activities are classified.

28% 3) Though faculty workload is not determined by the institution or collective bargaining, there are few variables that I can manipulate to change the past or present practice.

28% 4) We currently have a faculty group studying how the workload can be determined or revised in our department.

63. What percentage of your undergraduate nursing faculty have doctorates? (check one)

4% 1) 50% or more

5% 2) 40 - 49%

12% 3) 30 - 39%

19% 4) 20 - 29%

22% 5) 10 - 19%

39% 6) Less than 10%

63. What percentage of your undergraduate nursing faculty do you believe should be doctorally prepared? (check one)

71% 1) 50% or more

8% 2) 40 - 49%

9% 3) 30 - 39%

7% 4) 20 - 29%

3% 5) 10 - 19%

2% 6) Less than 10%

65. If you believe that a greater percentage of your undergraduate nursing faculty should be doctorally prepared than are currently, which of the following best reflects your major focus? (check one)

7% 1) We are unable to attract doctorally prepared nursing faculty and don't know what to do.

71% 2) We have implemented a plan whereby some present faculty are obtaining doctorates.

17% 3) We are undertaking vigorous selectively-focused recruitment to try and attract doctorally prepared faculty.

3% 4) We are employing doctorally prepared non-nurse faculty to fill some nursing faculty positions.

66. What percentage of your undergraduate nursing faculty is tenured or in the tenure system? (check one)

28% 1)	80% or above	10% 4)	50 - 59%
7% 2)	70 - 79%	10% 5)	40 - 49%
8% 3)	60 - 69%	32% 6)	Below 40%

67. What percentage of your undergraduate nursing faculty do you believe should be tenured or in the tenure system? (check one)

19% 1)	80% or more	24% 4)	50 - 59%
10% 2)	70 - 79%	13% 5)	40 - 49%
16% 3)	60 - 69%	11% 6)	Below 40%

68. If the percentage of undergraduate nursing faculty who are currently tenured or in the tenure system differs from what you believe it should be, what best reflects your current thinking? (check one)

46% 1) The institutional policies dictate tenure/tenure system status and we must follow those policies.

18% 2) We have a definite long range plan in action as to how we can increase/decrease the tenure system faculty at the undergraduate level.

4% 3) We know that we must increase/decrease the number of tenure system faculty but do not have a specific plan.

4% 4) Doctorally prepared faculty are not necessary to teach at the baccalaureate level.

69. What percentage of your undergraduate nusing faculty have published in a state or national level professional journal or contributed to or authored a nursing book within the past three years? (check one)

10%	1)	50% or more	18%	4) 20 - 29%
6%	2)	40 - 49%	21%	5) 10 - 19%
20%	3)	30 - 39%	25%	6) Less than 10%

70. What percentage of your undergraduate nursing faculty do you believe should have published in a state or national level professional journal or authored or contributed to a nursing book within the past three years? (check one)

56%	1)	50% or more	13%	4) 20 - 29%
11%	2)	40 - 49%	4%	5) 10 - 19%
12%	3)	30 - 39%	3%	6) Less than 10%

71. What percentage of your undergraduate nursing faculty currently is the principal investigator for any externally funded research or has been the principal investigator for funded research within the past three years? (check one)

1%	1)	50% or more	6%	4) 20 - 29%
0%	2)	40 - 49%	14%	5) 10 - 19%
3%	3)	30 - 39%	77%	6) Less than 10%

72. What percentage of your undergraduate nursing faculty do you believe should have been the principal investigator for externally funded research in the past three years? (check one)

10%	1)	50% or more	22%	4) 20 - 29%
7%	2)	40 - 49%	24%	5) 10 - 19%
22%	3)	30 - 39%	12%	6) Less than 10%

73. If the percentage of undergraduate nursing faculty that you believe should be publishing or the principal investigators in funded research differs from the actual percentage, which of the following best reflects your current thinking? (check one)

25% 1) With the current teaching workload that undergraduate nursing faculty have, there is little time for publishing or research.

30% 2) The publishing/research activites of the faculty will not increase until the number of doctorally prepared faculty increases.

16% 3) Time for preparation of material to be published or research proposal writing is planned in the work of selected faculty to encourage this type of activity.

27% 4) Participating in research or writing for publication depends on the interest and ability of the faculty member and, once expressed or shown, can be encouraged.

74. Which of the following are true for your generic baccalaureate nursing program compared with other professional programs in your institution? (check each one)

	Yes	No	N/A
1) We have a higher number of contact hours required for graduation.	64%	28%	5%
2) We have a higher grade point average required to progress/remain in the program.	50%	41%	6%
3) We have a lower number of doctorally prepared faculty.	75%	19%	5%
4) We have fewer students enrolled than most other programs.	14%	81	4%
5) Nursing requirements and faculty are comparable to those of other professional programs in the institution.	44%	43%	9%
6) Nursing is the only professional program in the institution.	8%	82%	6%

75. Which of the following are true for your generic baccalaureate nursing program compared with other non-professional baccalaureate programs in your institution? (check each one)

	Yes	No
1) We have a higher number of contact hours required for graduation.	80%	18%
2) We have a higher grade point average required to remain in the program.	65%	31%
3) We have a lower number of doctorally prepared faculty.	86%	11%
4) We have fewer students enrolled than most other programs.	23%	74%
5) Nursing requirements and faculty are comparable to those of non-professional programs in the institution.	29%	66%

76. Which of the following means of evaluation do you regulary seek and use to make administrative or curricular change? (check each one)

	Use	Do Not Use
1) Faculty evaluations.	98%	2%
2) Student evaluations.	100%	0%
3) Administrative input of your superiors.	80%	17%
4) Input from faculty/administrators in other campus departments.	50%	48%
5) Lay and/or professional input from outsdie the institution.	72%	27%

77. If you were faced with a substantial reduction in your departmental budget, which of the following approaches would you be most likely to select? (check one)

19% 1) Across-the-board cuts to all units.

34% 2) Selective deep cuts in some units and lesser or no cuts in other units.

44% 3) Elimination of some units/functions/persons while strenthening present and/or adding new units/functions/persons.

SECTION VI - PROGRAM DOWNSIZING

Using the definition of program downsizing given below, please answer questions 78-81. (check each question)

Program downsizing is defined as: reduction in size of a unit either by decreasing enrollment, faculty or deleting one segment of a unit but not the entire unit.

	Yes	No	Uncertain
78. Has the nursing program within your institution been proposed for downsizing within the past five years.	29%	70%	1%
79. Was the nursing program which was proposed for downsizing actually downsized.	26%	44%	2%
80. Have any programs in your institution other than nursing been proposed for downsizing within the past five years?	65%	22%	9%
81. Were any programs other than nursing which were proposed for downsizing actually downsized.	59%	18%	12%

If any segment of the nursing program has been proposed for or actually downsized in the past five years, please answer Questions 82-87; if not, go to Question 88.

82. Downsizing of the nursing program was proposed by: (check one)

21% 1) College or university administration

8% 2) Nursing program administration

0% 3) Legislators

83. The main reasons for the proposed or actual downsizing of the nursing program was: (check only one)

13% 1) Cost of program to institution

2% 2) Decreased need for nurses in state

1% 3) Duplication of other nursing education programs in the state

2% 4) Lack of relatedness of nursing program to mission of institution

12% 5) Other (specify) _____

84. The nature of the downsizing proposed in the nursing program included which of the following: (check all that apply)

	Reduced	Eliminated	Remained Same	Expanded
1) Undergraduate student enrollment.	17%	2%	4%	2%
2) Graduate student enrollment.	1%	1%	6%	6%
3) Lifelong education offerings.	2%	2%	10%	2%
4) Undergraduate faculty.	22%	2%	2%	0%
5) Graduate faculty.	2%	2%	7%	5%
6) Lifelong education.	2%	2%	8%	2%

85. The nature of the downsizing that actually occurred in the nursing program included which of the following: (check all that apply)

	Reduced	Eliminated	Remained Same	Expanded
1) Undergraduate student enrollment.	15%	1%	4%	2%
2) Graduate student enrollment.	1%	5%	8%	0%
3) Lifelong education offerings.	2%	2%	9%	2%
4) Undergraduate faculty.	21%	1%	3%	1%
5) Graduate faculty.	2%	1%	7%	6%
6) Lifelong education faculty.	2%	2%	9%	1%

86. Which of the following non-programmatic areas of the nursing program have also been downsized? (check all that apply)

	Yes	No
1) Administration	9%	14%
2) Clerical support	17%	7%
3) Work study or graduate assistants	5%	16%

87. Has the level of financial support received by your department since downsizing was proposed or implemented increased proportionately with other departments across your campus? (check one)

20% 1) Yes 5% 2) No

SECTION VII - PROGRAM DISCONTINUANCE

Using the definition of program discontinuance given below, please answer Quesions 88-91.

Program Discontinuance is defined as: merger of related programs, elminiation of certain degrees or programs within departments, or closing entire departments or units.

	Yes	No	Uncertain
88. Has the total nursing program within your institution been proposed for discontinuance within the past five years?	5%	90%	3%
89. Was the total nursing program which was proposed for discontinuance actually discontinued?	1%	62%	
90. Have any programs in your institution other than nursing been proposed for discontinuance within the past five years?	60%	25%	8%
91. Were any programs other than nursing which were proposed for discontinuance actually discontinued?	50%	29%	8%

SECTION VIII - PERSONAL DATA

92. What is your sex?

99% 1) Female 1% 2) Male

93. What was your age at your last birthday?

0% 1) Under 30
5% 2) 30 - 39
38% 3) 40 - 49
39% 4) 50 - 59
17% 5) 60 - 69
0% 6) 70 or above

94. What is your highest earned degree?

0% 1) Baccalaureate
14% 2) Masters in Nursing
2% 3) Masters not in Nursing
22% 4) Doctorate in Nursing
63% 5) Doctorate not in Nursing
0% 6) Other (specify) _____

95. How long have you held this position?

10%	1)	Less than 1 year	16%	4) 7 - 9 years
29%	2)	1 - 3 years	7%	5) 10 - 12 years
33%	3)	4 - 5 years	5%	6) 13 or more years

96. How many years of administrative experience in a departmental chairperson position or above did you have before assuming your current position?

25%	1)	Less than 1 year	8%	4) 7 - 9 years
19%	2)	1 - 3 years	7%	5) 10 - 12 years
24%	3)	4 - 6 years	16%	6) 13 or more years

APPENDIX C

INITIAL POSTCARD PRECEDING STUDY QUESTIONNAIRE

INITIAL POSTCARD PRECEDING
STUDY QUESTIONNAIRE

April 2, 1985

Next week you will receive a questionnaire seeking your input on factors relative to the decline affecting some institutions of higher education and some generic baccalaureate nursing programs. The data are being collected for my doctoral dissertation. I am seeking your input as chief executive officer in a generic baccalaureate nursing program as to factors you assess and actions you take in the areas identified in the questionnaire. One outcome from this study will be the development of a framework to use when assessing an academic unit relative to it's potential for decline.

I look forward to your participation in this survey.

Sincerely,

Sandra Simmons, R.N., M.S., Doctoral Student
College of Education, Michigan State University

APPENDIX D

COVER LETTER ACCOMPANYING FIRST QUESTIONNAIRE

COVER LETTER ACCOMPANYING FIRST QUESTIONNAIRE

April 9, 1985

Dear

Possibly you have been faced with the potential of no growth, retrenchment or even a slight decline in some of the resources available to the institution of higher education in which you are located. I am interested in the impact these conditions are having on generic baccalaureate nursing programs and have chosen to explore this topic for my dissertation. The focus of my study is the identification of those factors which contribute to organizational decline. Decline is used in the sense of no growth as well as reduced output. Factors identified at the organizational level can be applied to unit level programs to determine their potential for decline. In academic institutions, a unit with increased potential for decline means that unit is a candidate for downsizing or discontinuance. Thus to the extent that an administrator knows what makes his/her unit vulnerable and uses this information to assess and plan that unit should do well within the institution.

I am asking you as chief executive officer of a generic baccalaureate nursing program to complete the enclosed questionnaire. Your response is necessary as you set the tone and climate for the unit and are the only one with sufficient vision and knowledge of some data sought. Completion of the questionnaire will take approximately 30 minutes. I would appreciate your questionnaire being mailed by April 19, 1985.

Return of the completed questionnaire implies your consent to participate in this collection of data. All responses will be confidential. Grouped data will be presented in various ways, but at no time will any one institution or respondent be identified or identifiable. The number appearing on the questionnaire is only to enable follow-up contact with those persons not responding initially.

I believe that the data obtained from this study will be immediate and future use to chief executive officers of generic baccalaureate nursing programs. Having available this framework to use when assessing your unit's status and planning future courses of action should enable your program to be more proactive and less vulnerable. If you wish a copy of the results of the study, please put your name and address on the return envelope, not on the questionnaire. If you have any questions, please call me collect (616) 796-4956.

Thank you again for your prompt response to this questionnaire.

Sincerely,

Sandra Simmons, R.N., M.S., Doctoral Student

Enclosure

APPENDIX E

FOLLOW-UP POSTCARD MAILED ONE WEEK AFTER STUDY QUESTIONNAIRE

FOLLOW-UP POSTCARD MAILED ONE WEEK
AFTER QUESTIONNAIRE

April 16, 1985

Last week a questionnaire seeking your input about the effects of decline in higher education and what impact this was having on the administration of your generic baccalaureate nursing program was mailed to you.

If you have already completed and returned it to me, please accept my sincere thanks. If not, please do so today. As you know, the quality of information generated is, in part, dependent upon the rate of returned responses.

If by some chance you did not receive the questionnaire, please call me collect now at (616) 796-4956 and I will mail another one to you today.

Sincerely,

Sandra Simmons, R.N., M.S.
Doctoral Student, College of Education
Michigan State University

APPENDIX F

COVER LETTER ACCOMPANYING SECOND QUESTIONNAIRE

COVER LETTER ACCOMPANYING
SECOND QUESTIONNAIRE

April 30, 1985

Dear

Approximately three weeks ago, I sent you a questionnaire seeking your input on the effects of decline in higher education and the impact this was having on the administration of your generic baccalaureate nursing program. As of this date, I have not recieved your completed questionnaire.

The information obtained from this study will have relevance to chief executive officers in generic baccalaureate nursing programs over the coming difficult years being faced by institutions of higher education. Each response is vitally important as it makes the data obtained more useful. The questionnaire should be completed by you as the chief executive officer of a generic baccalaureate nursing program.

In the event that the initial questionniare sent to you has been misplaced, I have enclosed another for your use. Please complete and return it by May 10, 1985.

Your cooperation is greatly appreciated.

Sincerely,

Sandra Simmons, R.N., M.S.
Doctoral Student

Enclosure