

ENVIRONMENTAL CONDITIONS AND THEIR INFLUENCE

ON INFORMATION PROCESSING BY DEANS

IN BACCALAUREATE SCHOOLS OF NURSING

by

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(ABSTRACT)

The problems of declining enrollments and shrinking resources seem particularly acute for baccalaureate schools of nursing. In a study of responses to these and other problems, deans of five types of baccalaureate nursing schools described how they collected and channeled information as they developed strategies to ensure the future of their programs.

A questionnaire was sent to the deans of 344 baccalaureate schools of nursing. Forty-two percent of the deans returned the questionnaire. A follow-up study of 20% of the nonrespondents produced an inadequate return and did not permit comparison of respondents and nonrespondents. The data were summarized using frequencies, percentages, means, and standard deviations. Relationships were examined with one-way analyses of variance and Pearson correlation coefficients.

The most commonly perceived factors impacting each type of school, the types of information sought for each factor,

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the ways information was channeled, the actions taken regarding each factor, and potential future actions were reported. Two one-way analyses of variance found no differences ($\alpha = .05$) among the types of schools in (a) the total amount of impact on the school of all the factors and (b) the total amount of influence over these factors felt by the dean of the school. Pearson correlation coefficients for total impact and the number of years the dean had been in office and total influence and the number of years the dean had been in office were not large enough to be statistically significant ($\alpha = .05$).

Suggestions for research included studies of the information-processing and decision-making strategies of deans and comparative studies of information-processing and decision-making in schools of nursing and schools in other academic areas.

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CHAPTER 1
INTRODUCTION

The problems of a declining pool of potential applicants and shrinking enrollments have been discussed in today's higher educational literature (Deutsch, 1984; Keller, 1983; Kotler & Murphy, 1981;). Many academic areas have not experienced the enrollment declines that were anticipated. However, the problems of a declining pool of potential applicants and shrinking enrollments have recently become a major concern of many nursing leaders (Crosby, 1985; Lester, 1987; Redman & Pillar, 1986; Rosenfeld, 1987). Special concerns have been raised about the numbers of new applicants to baccalaureate schools of nursing and the nursing profession's ability to recruit students in light of the declining college-age population and fiscal restraints (Redman & Pillar, 1986).

Nursing programs in colleges and universities are especially vulnerable to enrollment declines because, traditionally, most nursing students have been women and women in our society have had limited, stereotypic occupational choices. As women have a greater number of professional options open to them, it is reasonable to expect that fewer will opt for nursing careers

(Morton, 1983). The American Association of Colleges of Nursing (Lester, 1987) reported that the 1986 fall enrollments showed a significant decline. The association is becoming concerned about the number of nurses that will be available to staff health-care facilities.

Aside from the women's issue, low salaries affect the choice of nursing as a career. It is logical to assume that women will choose programs of study that result in higher paying careers that will enable them to have a higher standard of living or to pay off loans for preparatory courses more quickly (Crosby, 1985).

Decreasing money for scholarships and other funding may be especially problematic for nursing programs because such programs are particularly expensive. The high cost of nursing is due to the fact that a nursing curriculum requires more hours of clinical field experience than other baccalaureate professional degree programs (Dienemann, 1983). This experience is often provided with a teacher-student ratio of one to ten, rather than a one to twenty-five or higher ratio. In the recent past, federal monies have paid for as much as seven percent of the total costs of nursing education (Morton, 1983), but these funds are being reduced as part of the effort to control government spending. Thus, it appears that the university or the student will have to shoulder an increased share of the costs of providing or pursuing preparation in nursing. .

The reduction in federal funds has produced an outcry from deans across the nation (Crosby, Facticeau, & Donley, 1983). Crosby, Facticeau, and Donley's 1983 survey showed that more than 75% of the responding deans were fearful, ". . . that lost federal funds would destroy their programs or drastically reduce their abilities to maintain quality instruction" (p.110). Despite this alarm, there is no reason to believe that the federal government under the Reagan administration will alter its policies. Thus, deans of nursing are thrust into the position of developing plans to absorb any loss of funds while maintaining their programs at the highest possible level of quality.

In 1983, when deans were asked how they planned to manage with reduced federal monies, most of them had a plan in one of three categories.. Thirty-five percent of the deans had plans that included capital campaigns to increase contributions from private foundations, alumnae, industry, health-care facilities, and the legislature (Crosby et al., 1983). Twenty-three percent of the deans had plans that included curricular and administrative changes to enhance their schools' attractiveness to nontraditional students. These plans included flexible schedules, part-time study, evening classes, year-round study, and acceleration of programs of study (Crosby et al., 1983). Twenty percent of the deans combined developmental and program activities (Crosby, et al. 1983). Only 5% of the deans stated they

received no federal funds (Crosby et al., 1983). "Sixteen percent of the respondents reported no master plan on future goals in order to cope with lost federal funds" (Crosby et al., 1983, p. 110).

Recently, the American Association of Colleges of Nursing asked members to share recruitment strategies used to increase enrollments (Lester, 1987). This request came in the aftermath of declining enrollments in many schools across the country.

The Crosby et al., study (1983), the Crosby study (1985), and the Lester report (1987) are important contributions to understanding how deans in nursing schools are reacting to the crises of money and student enrollments. These studies identify the dean as a crucial factor in the responses of nursing schools to the problems. The work of Partridge (1983) supports this view of the dean as the key person in creating and sustaining a healthy school or college. Deans are concerned about the problems of funding, budgets, faculty recruitment, enrollments, and curricula because the way these problems are resolved can enhance or undermine the quality of a school of nursing. Going beyond personnel management and budgeting, deans may be involved in soliciting funds from alumni and industry and in writing grants to maintain the necessary funds for their schools. The actions of the dean, to a large degree, are

precisely the ones that determine the quality and the future of the nursing program.

Statement of the Problem

Although the literature (Crosby et al., 1983; Crosby, 1985; Lester, 1987; Rosenfeld, 1987) reflects much concern for the declining enrollments and fiscal bases of programs in nursing, it provides little information on how deans go about resolving or ameliorating the problems confronting their schools. Specifically, the studies cited above do not include data on the nature and extent of the information deans seek, the ways the information is used by the deans, or the actions that develop as a result of the information that has been gathered. These are the questions of this study. They focus attention on the dean as an information processor.

Purpose

Essentially this is a study of the information processing activities of nursing deans. The results will describe how nursing deans collect and use information as they attempt to ensure the quality and possibly the very existence of their schools. Other deans experiencing similiar kinds of problems may well benefit from the information strategies used by the deans in this study to adjust their schools to the exigencies of their environments.

Research Questions

The following questions will be used to guide the research effort:

1. How are baccalaureate schools of nursing being affected by factors in their environments?
2. What factors in the environment do deans identify that are currently affecting the future of their baccalaureate schools of nursing?
3. What information and informational sources do nursing deans use in gathering data about the factors affecting their schools?
4. How are nursing deans processing the information they receive?
5. What actions are being taken by deans and/or their schools of nursing to enhance or counteract the effects of environmental factors on their programs?
6. What actions are identified by deans as being the most productive in enhancing or counteracting the effects of environmental factors on their programs?
7. What plans are being made by deans to enhance or counteract the effects of environmental factors on their programs?

Framework of the Study

The framework chosen for this study is systems theory. The idea for "general systems theory" is credited to biologist Ludwig von Bertalanffy. He began writing and lecturing about systems theory in the 1940s. Shortly thereafter the theory was adapted and expanded by the disciplines of cybernetics, physics, mathematics, sociology, psychology, and medicine. When the Society of General Systems Research was developed in 1950, systems theory became recognized as a model for research (Von Bertalanffy, 1968).

Systems theory provides a framework for the study of the functioning of organizations. It provides the concepts needed to explain the interconnections of the units of the organization and the interfacing of the units with other systems in the organization's environment. Systems theory is a very appropriate model for a baccalaureate school of nursing because of the nature of the flow of inputs and outputs.

A system is defined as a complex of components, directly or indirectly related in a causal network (Buckley, 1968). A main characteristic of a system is maintenance of the given steady state of the system within pre-established limits (Buckley, 1968). This involves the gathering and processing of information from the internal environments

and, also, from the external environments that directly or indirectly impact upon the system.

A school of nursing can be viewed as an open system in which inputs take the form of resources, students, faculty, finances, and information (Millett, 1968). The throughputs, are the processes of teaching-learning, curricula, evaluations, activities of student life, faculty activities, technologies, rewards, information processing, and the actions from decision making (Hanson, 1979, 1985). The actions that are developed from processing information become inputs back into the school of nursing's system, especially as they affect the numbers of faculty, students, and the curriculum. The outputs of a school of nursing are graduates, changes in attitudes, the gains in learning, faculty who retire, public service rendered, and the expressed reputation of the university (Hanson, 1985; Millett, 1968).

A system has cycles of events that are repeated as the products are exported into the environment (Katz & Kahn, 1978). One cycle in the school of nursing is its calendar and sequence of events that occur over and over each year from registration to graduation. The outputs of the school of nursing become inputs into several other systems, including the health care delivery system, family systems, and other higher educational systems.

In order for the system to survive, a state of negative entropy must exist. The system must always have more inputs than outputs or store or conserve its energy to survive in periods of crisis (Katz & Kahn, 1978). This is precisely the problem facing baccalaureate schools of nursing today. The inputs of resources have declined very quickly and provisions for storing or conserving energy have been slow to develop.

Input of information is an important characteristic of systems theory. In the simplest form this characteristic is negative feedback (Katz & Kahn, 1978). Input of information is the corrective device to get the system back on course, much as a thermostat controls the temperature of a room (Katz & Kahn, 1978). The system cannot possibly take in all the information it receives and, therefore, must be selective with the data it receives. Not all the information received and processed will necessarily improve the system's ability to function (Deutsch, 1983). The information is coded and transformed into meaningful information (Katz & Kahn, 1978). As information is collected, the system should become more organized and the organization should move toward negative entropy (Krammer & de Smit, 1977).

The input and processing of information are key concepts in this study. Copa (1980) believes that, "The

important thing to remember is that information needs depend upon the decisions to be made" (p.54). There is no end to the amount of information available to make program decisions, yet many decisions are made with inadequate information due to lack of time or resources (Copa, 1980).

Processing information involves decision making and the use of information from many different sources. "By focusing on information a great deal can be learned about the way in which an organization operates" (Adams, Kellog, & Schraeder, 1976, p.42). Stanford (1969) stated that looking at the way information is used facilitates better understanding of the organization. This study should facilitate a better understanding of baccalaureate schools of nursing by focusing on the input and processing of information.

The steady state is an important characteristic of a system. This is a dynamic state of continuous inflow of energy from the external environment and a continuous exporting of products from the system (Katz & Kahn, 1978). The character of the system remains the same, but in order to do so, the structure tends to import more energy than is required, and the system moves toward growth and expansion (Katz and Kahn, 1978). This growth has been true for higher education and baccalaureate nursing education until recently, when the imports have declined with no conservation of outputs.

Open systems tend toward differentiation and specialization. These features have become apparent in schools of nursing as the goals of various departments have become diverse and departments have become responsible for specific areas of instruction. Faculties have become efficient in their own speciality areas. These features may disappear during times of shrinking resources because faculty will need to become more flexible.

As goals become diverse, the characteristic of unification is important in achieving a common value system (Katz & Kahn, 1978). Sharing similiar values is accomplished by coordination of activities, tasks, and roles. Presently, in schools of nursing, deans are coordinating many activities to bring unification and to make maintaining the program the common goal.

Another characteristic of an open system is the principle of equifinality (Katz & Kahn, 1978). This principle infers that a system can reach its final state by coming from many different directions or paths. It assumes that the system may accomplish its goals of dynamic homeostasis by a variety of actions. The actions are developed after the informational inputs are processed. Then, the actions become outputs to the system to be evaluated, and the cycle continues.

The school of nursing is linked into a web with many other organizations -- the university, the health-care

delivery system, governments (federal, state, and local), boards of accreditation, and professional organizations. These organizations are complex systems. They have both internal and external interchanges that are mediated by flows of information (Buckley, 1968) and that impact directly upon schools of nursing. For example, the health care delivery system is made up of a variety of people who function in hospitals, nursing homes, clinics, and offices. This system has a continuous flow of internal information that updates and assists with evaluation of the system. The health-care delivery system does not keep all the information to its self. It sends information to governments stating requirements for budget and regulations. The health-care delivery system also sends information to universities which contain schools of nursing stating needs for manpower and offers areas for training.

The control mechanism of the system is the recipient of the information. In the school of nursing, this key person is the dean. The dean provides the major linkage between the school of nursing and the university, health care facilities, boards of accreditation, professional associations, and governments.

Definitions

For the purpose of this study the following definitions are applicable:

Baccalaureate school of nursing -- a school of nursing in a college or university that includes liberal arts

courses as well as nursing courses and takes four academic years to complete. In this study, the baccalaureate schools of nursing, were those listed in Publication # 15-1311 of the National League for Nursing (1985). The persons heading these schools are referred to as deans.

Information -- any knowledge, news, facts or data that was relevant to the operation of a school of nursing. In this study, information included: (a) the factors identified by the deans as having an impact on their schools of nursing and, (b) the information they sought about each of these factors.

Informational source -- a person, book, or document that supplies information. In this study it is the supplier of information, as reported by a dean, and it may vary by factor.

Actions -- the outcomes of processing and using information. In this study actions represent acts or strategies currently being used to enhance or counteract the effects of each impacting factor.

Environment -- anything outside the system that has relevance for the system. In this study the environment consists of those things outside the system, identified by deans, and labeled factors that impact the future of schools of nursing.

System -- a complex of interrelated units or components. In this study a baccalaureate school of nursing is a system.

Processing the information -- the use that a person makes of information. In this study the use is specifically identified by a dean.

Reasons for actions -- justifications for specific actions. In this study, they are the reasons given by the deans for selecting the specific actions to deal with each factor.

Limitations of the Study

The deans in this study were limited to those of baccalaureate nursing schools accredited by the National League for Nursing. It was recognized that using only baccalaureate nursing schools would limit the extent to which results might be generalizable to other academic programs. It was also recognized that the length of the questionnaire might limit responses.

A 42% response rate was obtained from the survey. A follow-up study was conducted that surveyed 20% of the nonrespondents. One-half of the follow-up questionnaires were returned. Generalization beyond the schools of nursing that returned questionnaires should be done with caution.

Organization of the Study

This study is presented in five chapters. The introduction and the purpose of the study have been described in Chapter I. This chapter also includes a statement of the problem, definition of terms, limitations of the study, and the organization of the study.

In Chapter II the literature related to the problems in baccalaureate nursing education is reviewed. Included in this review is the description of the role of the dean in planning, decision making, and leadership and the use of systems theory as it applies to the administration of higher education.

Chapter III contains the methods used for the study in both phases. Chapter IV describes the analysis of the data. In the final chapter, Chapter V, the study is summarized, conclusions are drawn, and recommendations are made for nursing deans and for future studies.

CHAPTER 2

REVIEW OF THE LITERATURE

A review of literature was conducted to provide background information related to this study. The review is presented in three sections: (a) literature related to the problems in baccalaureate nursing education; (b) literature related to the role of the dean in planning, decision-making, and leadership; and (c) literature related to the use of systems theory as it applies to organizations and especially to colleges and universities. The sources reviewed included books, journals, periodicals, and dissertations. A computer-based literature search of the ERIC and the nursing and allied health data bases was conducted. A summary is provided at the end of each section.

Problems in Baccalaureate Nursing Education

It has been projected that by the year 2000 the need for nurses with baccalaureate degrees will be twice the number of nurses prepared in 1980 (Redman & Pillar, 1986). However, the number of first-time students enrolling in baccalaureate nursing programs continues to drop (Ginsberg, 1981). The latest enrollment figures show a significant decline in enrollments for generic, baccalaureate students for the fall of 1986 (Lester, 1987). Among the reasons given for the decline are a drop in the number of

high school graduates, competition with other nursing programs as well as other college majors, increasing costs of college, and decline in loans and scholarships (American Association of Colleges of Nursing, 1986).

Others have noted the problems with enrollments as well (Vaughn, 1983; Felton, 1986). Holtzclaw (1983), stated that in addition to the change in age distribution and the declining number of high school graduates, women are no longer socially channeled into feminine roles such as nursing. This fact has been supported by other researchers (Crosby, 1985; Maraldo, 1983; Morton, 1983; Fillerman, 1984; and Carty & Bednash, 1985). Clearly, women are able to choose from a variety of careers and are doing so in record numbers.

As the number of students that enroll changes, so, does the demographic profile of the future nursing student. One bright spot seems to be that the number of college graduates applying to nursing programs is increasing (Slavinsky, Diers, & Dixon, 1985). One-third of the students at the University of Pennsylvania in the baccalaureate nursing program are already college graduates (Editorial, Nursing_81, 1981). This enrollment of college graduates into nursing should make for a more mature, wiser, and motivated group of nurses. However, in the next six to ten years there will be 26% fewer eighteen-year olds in the U.S., and of those eighteen year olds who choose to go to

college, more of them will be from lower socioeconomic and minority groups (Crosby, 1985).

The students from lower socioeconomic backgrounds will need more financial aid (Deutsch, 1983). However, the source of this needed aid is a major concern. Reductions in federal aid have been anticipated (Moore, 1983). The federal budget was cut from 49 million in 1983 to 13 million in 1984 (Tagg, 1984). The budget for the 1987 fiscal year calls for the elimination of all of the Division of Nursing categories in the fiscal year 1987 (Lester, 1986). Since many low interest loans and scholarship funds have been eliminated in nursing an increased number of the middle income students are selecting higher paying careers or programs that do have low interest loans and scholarships which are readily available (Crosby, 1985).

Even though the amount of federal funding has continued to decline, 65% of nursing deans surveyed by the American Association of Colleges of Nurses in 1986 believed that their programs were adequately funded within the context of the parent institution's financial status. The survey also indicated that 13% of the deans believed their programs were well funded, and only 22% reported inadequate funding (American Association of Colleges of Nursing, 1986). The majority of the inadequately funded schools were public institutions, while the well-funded schools were mostly private (American Association of Colleges of Nursing,

1986). These results seem to conflict with the 1983 study by Crosby, Donley, and Facteau, which found that 80% of deans believed their programs were inadequately funded and were making plans to cope with the decline in federal funds in order to maintain the existence of their schools. The discrepancy in these two studies within two years seems to indicate confusion about how much of a problem funding creates.

Redman and Pillar (1986) have identified the problems well: "Clearly, increased student debt load, competition from other fields for recruitment of recent high school graduates, and reluctance of potential students to leave jobs are barriers with which the profession needs to contend" (p.131).

In summary, enrollments as well as federal funding for baccalaureate nursing education seem to have peaked, but the costs still continue to rise. Baccalaureate nursing education is expensive since it requires more clinical hours than other baccalaureate programs (Dienemann, 1983), and many schools may not be able to continue to operate, given these circumstances, without expert leadership and direction.

The Role of the Dean

During the 1960s and 1970s baccalaureate nursing education along with higher education was growing at an unprecedented rate. Everything was expanding -- buildings, faculties, and enrollments. Then, suddenly, in the late

1970s the financial and demographic picture changed (de Tornay, 1985). Financial support declined and enrollments followed. Deutsch (1983) confirmed this change and stated that "retrenchment is the single most important issue facing higher education through the year 2000" (p.41).

The changing patterns of enrollment and demographic characteristics will require administrators to implement cost effective plans and to make innovative use of faculty in a proactive manner (Snyder-Hill, 1984). This proactive response assumes that leadership can reverse a declining situation with planning and a flow of information (Deutsch, 1983).

The dean's job is one of management and leadership. The managerial duties are the routine responsibilities. The main contribution of the dean is leadership (Ehrle, 1979). Leadership requires insight and imagination as the dean looks for better ways to do things. It is in this role that the dean plans where the program is going.

"Deans . . . have more influence over the destiny of their academic units than they realize" (Kemerer, 1984-85, p. 8). In fact Morris (1981) says that deans are "at the center of the university's raison d'etre" (p.8). They influence personnel decisions, budgets, and curriculum, and they initiate many changes that impact on the future of their schools (Partridge, 1983). Because their role is so

important, deans should formulate strategic plans (Kotler & Murphy, 1981).

Strategic planning takes into account both the external environment (Tack, Rentz, & Russell, 1984) and the internal environment of the school. The internal environment consists of the school of nursing and the university. The external environment of a baccalaureate school of nursing consists of the health-care delivery system as well as the nursing profession. Deans of nursing schools hold important leadership positions in all of these areas.

Planning enables deans to create the future rather than to inherit it (Solloway & Tack, 1978). "If the dean isn't looking ahead into future alternatives, what force or forces will guide the making of the day-by-day choices that inexorably produce whatever future his/her school or college is likely to have (Ehrle, 1979, p. 44)"? Considering the various problems baccalaureate nursing education is facing, strategic planning seems to be essential.

"Strategic planning is defined as the process of developing and maintaining a strategic fit between the organization and its changing market opportunities" (Kotler & Murphy, 1981, p. 471). This involves looking at both the internal and the external environments to analyze demographic, economic, financial, and market pictures and then to develop goals and actions to capitalize on opportunities (Kotler & Murphy, 1981).

It is apparent that deans have the ability to impact the future of their schools. Yet, there is ". . . little empirical evidence on the process of deaning to guide incumbents or students toward success in the role" (Stainton & Styles, 1985, p.269). In addition Griffiths and McCarty (1980) state, "There has been so little theoretical, conceptual, or research literature published on the deanship as to constitute an embarrassment to both the practitioners and the scholars of higher education" (p. v).

Previous studies of deaning focus on characteristics of the dean (Hall, McKay, & Matsunaga, 1981; Konrad, 1980; Lorensen, 1976; as cited in Stainton & Styles, 1985) or characteristics of the role of the dean (Ehrle, 1979; Garnier, 1982; Hannah, 1981; Hopopian, 1979; as cited in Stainton & Styles, 1985; Morris, 1981). The nature of the deanship as a researcher, scholar, and a colleague has also been published by the American Association of Colleges of Nursing (1981).

Even though the task of the dean is similar to that of other business executives, the dean works in a university setting that does not have one common goal (Stainton & Styles, 1985). The academic organization may have a common mission, but it has diverse goals. Universities have been described as organized anarchies (Cohen & March, 1974). The various departments, colleges, and schools can also be seen as loosely coupled systems in the university (Weick, 1976).

The university has also been described as hundreds of miniature subcultures (Baldrige, 1971). Therefore, it is difficult to study the process of deaning in various college and university settings.

Kells (1977) stated, "It is difficult to talk about the extent to which meaningful, academic master planning is carried on at colleges and universities in the United States" (p. 2). Kells (1977) cited a 1958 study in which only one-third of the responding institutions described adequate or comprehensive plans. He stated that it would be interesting to know more about plans being made and indicated there are no current surveys (Kells, 1977).

Knowing how a nursing dean processes information and plans actions to ensure the future of the school may provide a significant piece of information about the process of deaning. With the exception of the American Association of Nursing study (1986), the Crosby et al., study (1983), Crosby (1985), and Lester (1987), no studies were found regarding specific actions that deans were planning to use to ensure the future of their baccalaureate nursing programs.

In summary, the dean's role in leadership and planning is well documented in the literature, but there is little empirical knowledge published about the deanship. Noting what factors nursing deans consider important and how deans

make plans for the future of their programs could add to the body of knowledge on deaning.

Systems Theory

Systems theory is useful in studying organizations (Pace, 1983) and may be very applicable to the understanding of universities and university management (Backhoff & Mitnick, 1981; Emery & Trist, 1960). Systems theory has been used as the framework for a variety of studies relating to problem solving, planning, and complex systems. Buckley (1968) wrote about complex adaptive systems. Sutherland (1977) studied the decision-making process in leaders. Warfield (1974) and LaPorte (1948), as cited in Backhoff and Mitnick (1981) studied complex societal systems. Mitroff, Betz, Pondy, and Segasti (1974) and Weaver (1948) studied the management of science. Other studies include those by Blau (1955), who studied governmental agencies; Gouldner (1954), who analyzed industrial bureaucracy; Warner and Low (1947) and Jaques (1951), who studied factories; and Selznick (1966), who studied the Tennessee Valley Authority.

Gilliland and Gilliland (1978) stated that very little has been written in the education literature about systems theory. They proposed that administrators in education would be better equipped to plan and to make decisions if they knew and understood systems theory (Gilliland & Gilliland, 1978).

A few studies were found that supported the use of systems theory in education. Collins (1964) described a

systems approach to consultation to help Negro colleges that were experiencing declining enrollments and financial constraints. His approach utilized meetings and interviews in various offices across the campus to gather data and to offer complete services rather than a "bandaid" approach (Collins, 1964).

Johnson (1984) suggested that if schools were viewed as systems, they could be viewed from a new perspective and that "Systems theory could be a powerful management tool if studied and used" (p.137). However, he provided no specific information on how to do this.

Baird (1974) suggested that more attention needed to be given to the use of information and the kinds of data collected in schools. In 1980 Copa provided ideas for using systems theory to make decisions for vocational educational programs. He listed informational needs according to the category of the decision to be made but he stressed that the more important decisions required that information be combined.

Adams, Kellogg, & Schroeder (1976) studied ten small colleges to determine how decisions were made and what information was available for decision making. Their study concluded that ". . . more work needs to be done in studying current decision processes and information systems in colleges. Through such studies a better understanding can

be gained of current conditions, and realistic directions can be suggested for the future" (Adams, Kellogg, & Schroeder, 1976, p.48).

Systems theory can be related to nursing and has been used to develop nursing theory (Fawcett, 1984; Stevens, 1979). Conceptual frameworks of schools of nursing and nursing in general use systems theory to develop curricula, to develop nursing care plans, and to guide nursing research (Putt, 1978)

A systems theory approach has been used to study complex organizations, including schools and universities. The characteristics of a system fit very well with the activities of a university. Although several studies were found to document the appropriateness of systems theory in the university, and nursing schools use systems theory in research and practice, no studies were found that studied baccalaureate schools of nursing as systems.

CHAPTER 3

METHODOLOGY

This study was designed as a two-phase investigation. This chapter contains a description of the two phases of the study and the ethnographic and survey techniques which were used to determine how nursing deans were gathering and processing information in an attempt to maintain the quality and possibly the existence of their schools. Phase I consisted of developing and pretesting the interview and the interviewing of selected deans for the purpose of developing a questionnaire. Phase II consisted of pretesting the questionnaire and using it to collect data from selected deans of baccalaureate schools of nursing.

Phase I--Interviews of Selected Deans

Developing the Interview Questions

Most of the interview questions were derived directly from the research questions. The first interview question, "What are all the factors you can identify that are currently affecting the quality of your school?" was developed from research question number two, which was originally, "What factors in the environment do deans identify that are currently affecting the quality of their baccalaureate nursing programs?" This question presented a problem on the very first pretest interview. The question

seemed to make the dean very defensive and she hesitated naming any factors that would alter the quality of the program at her school.

During the next interview, the dean became so upset that she would not continue until the question was reworded to omit the word "quality". Therefore, the research question was changed to, "What factors in the environment do deans identify as currently affecting the future of their baccalaureate schools of nursing?" And, the interview question was altered to reflect the change in this wording. Talking about factors that might have a bearing on the future was less threatening than talking about factors that affected the quality of programs. The factors were listed exactly as noted by each dean.

After all the factors were listed, the interviewer referred back to each factor and asked several more specific questions. The second interview question, "How, specifically, is each one (factor) affecting the future?" was derived from research question number one, "How are baccalaureate schools of nursing being affected by factors in the environment?" (This question was also answered by the review of the literature).

Interview question number three, "Which factor has the most effect on the future of your program?" did not come specifically from a research question. This question was asked to gain an understanding of which factor deans felt

has the most impact on their programs. The follow-up question, "Why do you say this?" was added as an attempt to obtain specific reasons. The question did not yield many specific answers perhaps because the answer seemed so obvious to deans who deal with the factors on a day-to-day basis.

Interview question number four, "Which factor(s) do you believe the dean can most likely do something about?" was asked to find out if deans felt they could influence the factors that were impacting the future of their schools. They were also asked to explain why they felt able or not able to influence the factor.

Interview question number five, "Which factor(s) are you dealing with now?" asked the deans to state all the factors they were currently addressing at their school. For each factor that was being addressed, a series of questions was asked to answer the remainder of the research questions.

"What kinds of information do you seek about this factor?" and "Where do you get the information about this factor?" were derived from the third research question, "What information and informational sources do nursing deans use in gathering data about the factors affecting their schools?"

According to the techniques of Spradley (1979), the interview was conducted to develop rapport with the informant and to elicit information. Developing rapport

encourages informants to describe their culture (Spradley, 1979). Information is elicited by a series of descriptive and contrast questions. There are several types of descriptive questions, but basically descriptive questions encourage the informant to talk about a specific cultural scene. Examples of descriptive questions asked were "What are all the factors you can identify that are currently affecting the quality of your school?" and "What (are all the) actions you are taking to deal with these factors?" Contrast questions look for likenesses and differences. Examples of this type of question are, "Which factor has the most effect on the future of your program?" and "Which (kinds of information) are more valuable than the others?"

The interview questions, "What do you do with the information you receive?" and "Are there alternatives?" were derived from research question number four, "How are nursing deans processing the information they receive?" The fifth interview question, "What actions are being taken by deans and/or their schools of nursing to enhance or counteract the effects of environmental factors on their programs?" was derived from the research question, "What actions have been developed to deal with these factors?"

The follow-up question, "What are the reasons for taking these actions"? was derived from research question number six which was originally "What are the reasons for

thinking these actions need to be taken?" This question received few responses and was changed for the survey. In the interviews, deans responded that they had no alternatives. Typical comments were "What else could we do?" and "That's what will work." There seemed to be no real analysis of why actions were taken.

The final interview question, "What activities are you as a dean doing to promote these actions?" also proved to be unproductive and was omitted from the survey. Deans seemed to be annoyed with the question and would respond, "I just told you all the things I am doing."

Lastly, the interviewer asked for the following information:

1. Number of full-time equivalent students in 1980 and 1985.
2. Number of full-time faculty in 1980 and 1985.
3. Amount of federal funds in 1980 and 1985.
4. Amount of tuition in 1980 and 1985.
5. Existence of a registered nurse program.

The complete interview protocol is in Appendix A.

The interview questions were pretested with four nursing deans, two in person and two by telephone. The two deans interviewed in person were selected because of their proximity to the interviewer at the time the study was underway. The two deans interviewed by phone were chosen because of their contributions to the nursing literature and

their apparent interest in the future of baccalaureate nursing. The nursing deans were from three different states, and their schools were accredited by the National League for Nursing. In addition, the interview questions were practiced with a dean of a vocational program at a land-grant state university.

Population and Sample for the Interviews

The sample of deans that was interviewed was selected from deans at schools that were accredited by the National League for Nursing. Each school is a member of one of the following types of colleges and universities: private, state-supported, connected with a medical center, religious, and with a graduate school. These schools were also easily accessible in the states of Virginia, North Carolina, Maryland, and the District of Columbia. The following schools were available in each category:

Private Colleges and Universities:

- American University
- Howard University
- Queens College
- Hampton University
- Marymount College of Virginia

State-Supported Colleges and Universities:

- University of District of Columbia
- Coppin State College
- University of Maryland
- Towson State
- East Carolina University
- North Carolina Agriculture and Technical State University
- North Carolina Central University
- James Madison University
- Winston-Salem State University
- Western Carolina University

University of North Carolina at Chapel Hill,
Charlotte, and Greensboro
George Mason University
Norfolk State University
Old Dominion University
Radford University
University of Virginia

Universities Connected with a Medical Center:

Georgetown University
University of Maryland
University of North Carolina at Chapel Hill
University of Virginia
Virginia Commonwealth University

Religious Colleges and Universities:

Catholic University
Georgetown University
Columbia Union College
Atlantic Christian
Lenoir Rhyne College
Eastern Mennonite College

Colleges and Universities with a Graduate School:

Catholic University
Howard University
University of Maryland
East Carolina University
University of North Carolina at Chapel Hill,
Charlotte, and Greensboro
George Mason University
Hampton Institute
Old Dominion University
University of Virginia
Marymount College of Virginia
Virginia Commonwealth University

Six deans were chosen at random from each of the above categories by drawing names placed on slips of paper.

Execution of the Interviews

Each dean to be interviewed was contacted in advance by telephone to explain the purpose of the research and to set up an interview. The interview was established at a convenient time for the dean and was conducted in the dean's

office. The deans were asked permission to have the interviews recorded and each dean was assured of anonymity. Notes that described the setting and the interviewer's feelings were made during and immediately after the interview. After the interview was completed, the tape was transcribed. Field notes and a journal were written according to Spradley's (1979) criteria as part of the ethnographic record. Field notes described details of the setting, and the journal described the interviewer's feelings, thoughts, and reactions to the interviews.

Analysis of the Interview Data

After the interviews were completed, the data from the field notes, journal, and interviews were analyzed. This was done in a systematic manner in the form of a domain analysis. Domain analysis is a way of identifying categories and relationships among categories in qualitative data (Spradley, 1979). First, a domain list was developed from the answer to the main interview question as follows:

1. Kinds of factors that affect the future of baccalaureate schools.
2. Types of information sought.
3. Types of informational sources.
4. Ways information is channeled.
5. Types of activities developed.
6. Reasons for actions.

The second step was to identify relationships that existed between and across the domains. This step revealed patterns in the domains. These patterns suggested the way in which these deans gathered information and how they used information to develop actions to try to assure the futures of their schools. This analysis provided the data to develop the questionnaire.

Phase II--A Survey of Selected Nursing Deans

Development of the Questionnaire

After the interviews were completed, domain lists of all the answers were compiled for each question, e.g., a list of all the factors, a list of the types of information sought for each factor, a list of the sources of information for each factor. The questions were shortened and those noted to be unproductive were eliminated. For example, the questions, "Are some kinds of information more valuable than others?" "Which ones?" and "Why?" did not get meaningful responses from deans. Deans stated they used all the information they could and, "of course," some information was more valuable than others, but they did not (or could not) specify which information was more valuable.

"What do you do with the information you receive?" and "Are there alternatives?" were changed to "How do you process the information you receive?" which more clearly reflects the research question.

The deans became annoyed with the question, "What are the reasons for taking these actions?" They made such comments as, "What else could I do?" "That's the only way to do it," and "Because it will work." Therefore, for the survey, the question was changed to "Please write the number (designated for coding purposes) of each action taken and state why you feel it is preferable over other alternatives."

The final question about each factor became, "Are future actions being planned?" A "yes" or "no" response was solicited. If the answer was "yes", deans were asked to list future plans.

The final revision for the survey was that the demographic data were placed first instead of last.

The questionnaire developed into a document of over 900 possible responses. Several formats were tried to condense the document and to make it easier to read and answer. The final format was chosen because it made the best use of space and allowed the document to be in a shortened, more manageable form.

The instrument was pretested first by three doctoral students. They were asked to complete the instrument as if they were deans and to respond to the clarity of instructions. They had suggestions for clarifying directions and they corrected several typographical errors. After these revisions, the instrument was pretested by six

nursing deans. Three deans were chosen at random from the National League for Nursing (1985) Publication #15-1311.

Two of the deans who had participated in the interviews were chosen because of their apparent interest in the study. In addition, the dean of the school in which the researcher is employed reviewed the instrument. The deans were asked to complete the instrument and to comment on format, clarity, and validity of the instrument.

Five of the six instruments were returned from the deans. Several suggestions were made, including the revisions to the demographic data to include: (a) number of junior and senior students in 1980 and 1985, (b) number of graduates in 1980 and 1985, (c) number of faculty in 1980 and 1985, (d) amount of federal funds received in 1980 and 1985, (e) amount of private funds received in 1980 and 1985, (f) number of years in the dean's position. In addition, other sources of information were added and a different size envelope was suggested for mailing the questionnaire. One of the major criticisms was that the questionnaire was too long for busy deans to fill out. Even though this was indicated by several deans, it was believed that all the information was essential to the study. The final instrument is located in Appendix B.

The final instrument was divided into three sections. The first section contained the demographic data as previously described. The factors that were identified in

the interviews as impacting the future of baccalaureate nursing education were included in the second part of the questionnaire. In this section, the deans were asked to record the extent to which they believed each factor affected the future of their particular school. The impact of the factor was measured on a one to four point scale: one designated not at all, two designated slightly, three designated moderately, and four designated significantly. In addition, the deans were asked to report the extent to which they believed they could change the factors, using the same one to four point scale. Space was left for the dean to add additional factors which might not have been listed. The third part of the questionnaire asked the deans to identify which of the factors they were currently addressing at their school by providing the following data: (a) the kinds of information they sought about the factor, (b) the source of the information, (c) ways the information had been channeled, (d) actions taken as a result of channeling the information, (e) actions that were the most productive, and (f) future plans.

Population and Sample for the Survey

After the questionnaire was developed, it was sent to a stratified random sample of 344 deans of baccalaureate schools of nursing from each of the categories of colleges and universities that are state-supported, private,

religious, connected with a medical center, and with a graduate program. The number of each subcategory was based on a formula developed by the National Education Association and reported by Krejcie and Morgan (1970). The formula requires a simple computation using the table value of chi-square for 1 degree of freedom at the desired confidence level, the population size, the population proportion, and the degree of accuracy expressed as a proportion (Krejcie & Morgan, 1970). A table listing various population sizes and the computed sample sizes is included in the article by Krejcie and Morgan (1970). The sample number determined for each category of baccalaureate schools was: religious, 63 (population 72), private 52, (population 57), state-supported 118, (population 285), and medical center 10, (population 10). Many baccalaureate nursing schools also have graduate programs. Schools with graduate programs may have different problems. They may also have different solutions to the same problems that baccalaureate schools have. Therefore, to assure that baccalaureate schools with a graduate program were included in the study, 103 were selected according to the formula (population 136). All of these schools were selected from a population of National League for Nursing accredited baccalaureate nursing schools listed in Publication # 15-1311 of the National League for Nursing (1985). After the 344 schools were chosen, they were numbered from one to 344 consecutively. The number was

placed on the front of each questionnaire and a copy of the mailing labels was numbered accordingly. This was done to facilitate the follow up of the schools.

Administration of the Questionnaire

Each questionnaire was mailed with a cover letter and a stamped, return envelope. The cover letter explained the purpose of the research and asked for participation (Appendix C). A post card was sent as a reminder a week later (Appendix D). Three weeks later, a follow-up letter and another questionnaire were mailed to the nonrespondents (Appendix E). This follow-up format is the procedure recommended by Dillman (1978).

Of the 344 questionnaires that were sent, two were sent inadvertently to schools that did not have a baccalaureate program (Yale and University of North Carolina School of Public Health). One dean had expired and a replacement had not been hired, one school did not have a dean and was functioning with a committee, and one dean wrote that she had only recently been appointed and could not possibly answer the questionnaire. The total sample size was reduced to 339. One hundred and forty-three useable questionnaires (42%) were returned (Table 1).

Analysis of Questionnaire Data

Three analyses were conducted. The first consisted of calculating means, standard deviations, and/or percentages for the demographic data, the factors identified as

Table 1

Number and Percentage of Surveys Returned by Type of Baccalaureate Nursing Schools

Type of Nursing School	Population	Sample	Percent of Population	Useable Surveys Returned	Percentage Returned
State-Supported	285	118	41.0	52	44.1
Medical Center	10	10	100.0	2	20.0
Private	77	50	64.9	21	42.0
Religious	89	63	70.7	27	42.9
Graduate Program	138	103	74.6	41	39.8
Total	599	344	57.4	143	41.6

affecting the future of baccalaureate programs, types of information sought, sources of information, ways of processing information, actions being taken, the most productive actions, reasons for actions, and future actions. The second step was the calculation of a "total impact" and "total influence" score for each category of school. This procedure was followed by running one-way analyses of variance to determine if there were significant differences in total impact and total influence among the categories of schools.

The final step was to determine if deans who have been in their positions for a longer period of time might feel less impact from the factors and possibly feel more influence due to the nature of their experiences. A two-tailed Pearson correlation coefficient was run for (a) total impact and number of years in current position and (b) total influence and number of years in current position.

Nonrespondents

A letter was sent to 39 (20%) of the nonresponding deans (Appendix F). The bottom of the letter contained a very short questionnaire taken from the original survey. These responses were compared to those of responding deans.

Analysis of Nonrespondents

The analysis of the nonrespondents was done in a descriptive manner. Percentages, means, and standard deviations were computed for the items and were compared to those for the respondents.

CHAPTER 4

RESULTS OF THE STUDY

The results are presented in five sections. The first section contains a description of the sampled schools of nursing. The second section answers research questions two through seven by category of school. The third and fourth sections contain the results of the one-way analyses of variance and correlations used to further analyze the data. The fifth section contains the analysis of the nonrespondents.

Description of the Sampled Schools of Nursing

The first aspect of the analysis of the data involved the analysis of the demographic section of the questionnaire. These data are summarized in Table 2. Since there were only two schools associated with medical centers, and since they were also state-supported medical centers, they were combined with the state-supported schools.

The number of full-time students decreased from 1980 to 1985 in the private and religious school categories, but was up slightly in the state-supported and graduate school categories. The number of graduates was the same or decreased in all categories except in the graduate school category. The number of full-time faculty increased very slightly in state-supported schools, remained the same in

Table 2

Number of Students, Graduates, and Faculty; Federal and Private Funding; and Number of Years of Dean's Tenure in Office

		State-Supported/ Medical Centers n=54	Private n=21	Religious n=27	With A Graduate School n=41
<u>Number of Full-Time Students</u>					
1980	\bar{X}	84	101	144	222
	SD	99	134	167	214
1985	\bar{X}	92	77	125	232
	SD	90	92	143	108
<u>Number of Graduates</u>					
1980	\bar{X}	36	35	54	108
	SD	40	27	54	114
1985	\bar{X}	36	32	53	118
	SD	34	21	43	103
<u>Number of Full-Time Faculty</u>					
1980	\bar{X}	9	12	14	36
	SD	8	8	10	37
1985	\bar{X}	10	9	14	36
	SD	8	6	9	30
<u>Federal Funds</u>					
1980	\bar{X}	28,362	14,197	12,445	205,809
	SD	74,203	40,060	48,536	657,114
1985	\bar{X}	29,083	476	3,814	167,281
	SD	93,225	2,181	14,899	452,639
<u>Private Funds</u>					
1980	\bar{X}	3,395	48,540	35,045	14,475
	SD	17,286	160,518	115,250	35,246
1985	\bar{X}	7,088	37,598	42,800	104,738
	SD	17,066	109,091	119,292	313,179
<u>Number of Years of Dean's Tenure in Office</u>					
	\bar{X}	5	5	5	4
	SD	3	1	3	4

religious and graduate schools, and decreased in private schools.

Federal funds were down considerably in all categories, except state-supported schools. Private funds increased in all schools except private schools, where these funds declined. The deans in religious schools have been in their positions longer than deans from other types of baccalaureate schools.

Analysis of the Top Three Factors by School Type and Research Question

The next data analyzed were (a) the effect of each factor on the future of the school by the category of school (state-supported, private, religious, or graduate school) and (b) the extent to which the dean felt capable of influencing the factor. The effect of each factor and the extent to which deans felt capable of influencing the factor were calculated on a one-to-four point scale. The mean scores of effect and influence are summarized in Table 3.

The next data analyzed answered the research questions. For each factor the following research questions were asked (a) "What information and informational sources do nursing deans use?" (b) "How are nursing deans processing the information they receive?" (c) "What actions are being taken by deans and/or their schools of nursing to enhance or counteract the effects of environmental factors?" (d) "What actions are identified by deans as being most productive?" and (e) "What future plans are being made?"

Table 3

Means and Standard Deviations for Deans' Assessments of the Impact of and Their Influence Over Twenty-One Factors Affecting Baccalaureate Schools of Nursing

Baccalaureate Schools of Nursing								
Factor	State-supported/ Medical Centers n=54		Private n=21		Religious n=27		With A Graduate School n=41	
	IMP ^a	INF ^b	IMP ^a	INF ^b	IMP ^a	INF ^b	IMP ^a	INF ^b
1.	2.81 (1.13)	2.68 (.82)	3.19 ^c (1.03)	2.50 (.98)	3.51 ^c (.80)	2.44 (.75)	3.09 ^c (1.00)	2.73 (.99)
2.	2.40 (.84)	2.11 (.95)	2.81 (.93)	1.81 (1.07)	3.11 (.85)	1.77 (.89)	2.87 (1.12)	2.17 (.95)
3.	3.03 (.99)	1.9 (1.00)	3.33 ^c (1.00)	1.85 (.96)	3.33 ^c (.88)	1.81 (.74)	3.24 ^c (1.06)	2.07 (.85)
4.	2.85 (.86)	2.22 (1.02)	2.85 (.79)	2.47 (.98)	3.07 (.87)	2.07 (.83)	2.92 (1.01)	2.68 (.88)
5.	2.40 (1.03)	1.68 (.80)	2.42 (1.24)	1.61 (.80)	2.59 (1.27)	1.63 (.79)	2.87 (1.10)	1.78 (.69)
6.	3.11 ^c (1.02)	1.96 (.93)	2.47 (1.16)	1.95 (.92)	2.18 (1.14)	1.48 (.75)	2.80 (1.12)	1.95 (.83)
7.	2.98 (1.07)	2.61 (1.05)	3.00 (1.09)	2.38 (.92)	2.70 (.99)	2.59 (.93)	2.78 (1.21)	2.51 (1.07)
8.	2.66 (1.09)	1.57 (.72)	3.00 (.95)	1.52 (.68)	3.00 (1.07)	1.77 (.80)	2.68 (.85)	1.73 (.87)
9.	2.57 (.90)	1.96 (.89)	2.66 (1.15)	1.81 (.75)	2.85 (1.23)	2.03 (.98)	3.00 (.98)	2.24 (1.06)
10.	2.79 (1.13)	3.33 ^d (1.06)	2.90 (1.09)	3.14 ^d (1.27)	2.85 (1.13)	3.37 ^d (.97)	2.61 (1.20)	3.19 ^d (1.28)
11.	2.81 (1.16)	3.11 ^d (1.02)	2.71 (1.23)	3.04 ^d (1.32)	2.48 (1.25)	2.85 ^d (1.19)	2.58 (1.18)	3.07 (1.19)
12.	3.22 ^c (.79)	2.77 (.86)	3.14 (.91)	2.71 (1.00)	3.11 (1.12)	2.51 (.93)	3.26 ^c (.92)	3.09 (.70)
13.	2.72 (1.22)	2.03 (1.02)	2.81 (1.20)	2.00 (.95)	3.11 (1.18)	2.07 (1.07)	2.31 (1.12)	2.14 (.99)
14.	3.11 ^c (.90)	2.42 (1.05)	3.14 (.96)	2.61 (.87)	3.00 (1.14)	2.63 ^d (.74)	2.92 (1.10)	2.48 (.93)
15.	1.87 (.91)	2.01 (.90)	2.19 (.93)	2.00 (1.00)	2.07 (1.10)	2.11 (.93)	2.29 (1.10)	2.22 (.99)
16.	2.88 (.95)	2.16 (1.04)	2.95 (1.02)	2.14 (1.06)	2.63 (1.11)	1.96 (.76)	2.95 (1.13)	2.29 (1.00)
17.	2.72 (1.05)	2.74 (.96)	2.47 (.98)	2.57 (1.12)	2.25 (.98)	2.44 (.97)	3.02 (1.12)	3.17 ^d (1.02)
18.	3.24 ^c (.95)	3.31 ^d (1.06)	3.42 ^c (.87)	3.33 ^d (1.15)	3.40 ^c (1.08)	3.37 ^d (.97)	3.17 ^c (1.30)	3.36 ^d (1.17)

Table Continues

Table 3 Means and Standard Deviations for Deans' Assessments of the Impact of and Their Influence Over Twenty-one Factors Affecting Baccalaureate Schools of Nursing (continuation)

Additional Factors	Baccalaureate Schools of Nursing						
	State-Supported/ Medical Centers n=54	Private n=21	Religious n=27	With A Graduate School n=41			
1. .78 (1.79)	.57 (1.54)	.52 (1.32)	.38 (1.07)	.85 (1.63)	.67 (1.30)	.36 (1.13)	.29 (.929)
2. .31 (1.08)	.15 (.53)	.33 (1.06)	.14 (.48)	.22 (.85)	.26 (.76)	.17 (.77)	.12 (.56)
3. .13 (.67)	.11 (.60)	.14 (.66)	.05 (.22)	.11 (.58)	.07 (.38)	.07 (.47)	.07 (.47)

General Note:

Scale 1 = none at all, 2 = slightly, 3 = moderately, 4 = significantly
() Standard Deviation

Factors:

1. Declining enrollments; 2. Changing demographics; 3. Women selecting nontraditional roles;
4. Quality of applicant pool; 5. Declining federal funds; 6. Changing state funds;
7. Allocation of university resources and support; 8. Rise in tuition, room, board, and fees;
9. Number of scholarships, traineeships available; 10. The curriculum plan at my school;
11. The question of the ability to provide a quality education at the undergraduate level;
12. The image of nurses and the profession of nursing; 13. Easy access to associate degree programs;
14. The inability of the discipline to come to a consensus about the entry-into-practice issue;
15. The inability to attract men into nursing; 16. Changes in the health-care delivery system;
17. Number of faculty who engage in research and scholarly activities;
18. The image of my school's program.

Additional Factors:

State-Supported/Medical Centers: 1. Too many schools and size of schools; 2. Depressed economy; 3. Lack of funds, high costs. Private: 1. Faculty--tenure mix, level of preparation, ability to attract qualified faculty, and salaries; 2. Too many schools and size of school; 3. Lack of autonomy. Religious: 1. Image of health care; 2. N.L.N. accreditation; 3. Availability of clinical sites. With a Graduate Program: 1. Too many schools and size of schools; 2. Flexibility of program; 3. Lack of funds, high costs.

^aIMP = Impact, ^bINF = Influence, ^cTop three factors with highest impact, ^dTop three factors conducive to dean's influence.

State-Supported Colleges and Universities and Medical Centers

The factors reported to affect state-supported schools and medical centers follow. The numbers in parentheses reflect the score for each item on a one to four point scale (1 = none_at_all, 2 = slightly, 3 = moderately, 4 = significantly). The factors are (a) image of my school's program (3.24), (b) the image of nurses and the profession of nursing (3.22), (c) changing state funds (3.11), and (d) the inability of the discipline to come to a consensus about the entry-into-practice issue (3.11). However, when deans were asked to identify a single factor as having the greatest impact on the future of their schools, 29% did not list a factor or stated there was no single factor, and 13% listed declining enrollments. The image of the school's program was not listed by any of the deans as the single most important factor.

The factors that the deans believed that they could influence are (a) the curriculum plan at my school (3.33), (b) the image of my school's program (3.31), and (c) the question of the ability to provide a quality professional education at the undergraduate level (3.11).

Perhaps the discrepancies between the factors that deans believe have the most impact and the ones that they believe they are able to change are due to the complex nature of these factors. For example, deans have more influence and control over their own schools than they have over the entire image of nursing.

Table 4

Kinds and Sources of Information Sought, Channeling of Information, and Actions Taken by Deans Regarding the Image of the Program of the Dean's School

	Baccalaureate Schools of Nursing			
	State-Supported/ Medical Centers	Private	Religious	With A Graduate School
	n=54 %	n=21 %	n=27 %	n=41 %
A. <u>Kinds of Information Sought</u>				
Reasons students choose baccalaureate nursing	53.7	66.7	63.0	48.8
Numbers of students applying interested in nursing	55.6	66.7	77.8	61.0
"Picture" of the current image of the nursing profession in the country	55.6	57.1	77.8	39.0
Feedback from employers on how well grads perform	79.6	95.2	96.3	75.6
Graduates' image of themselves	66.7	81.0	85.2	51.2
"Picture" of the image of nursing on campus	51.9	52.4	55.6	41.5
Other	1.9	0	0	2.4
B. <u>Sources of Information</u>				
A.A.C.N.	22.2	28.6	18.5	22.0
N.L.N.	24.1	47.6	37.0	24.4
A.N.A.	14.8	33.3	18.5	14.6
Professional Journals	29.6	42.9	48.1	26.8
Books	22.2	28.6	29.6	19.5
Employers	74.1	76.2	85.2	73.2
Graduates	74.1	81.0	88.9	75.6
Other nursing deans	29.6	47.6	37.0	31.7
Media (TV, radio)	24.1	23.8	29.6	19.5
High school guidance counselors	18.5	33.3	29.6	29.3
Campus administrators	53.7	57.1	44.4	34.1
Other	20.4	14.3	14.8	9.8
C. <u>How Information Has Been Channeled</u>				
Kept for own use	25.9	23.8	18.5	26.8
Sent to appropriate vice-president	27.8	47.6	55.6	24.4
Sent to associate/assistant dean(s)	13.0	14.3	14.8	43.9
Sent to department chair(s)	93.0	14.3	18.5	34.1
Sent to appropriate committee(s)	42.6	42.9	40.7	58.5
Sent to faculty	83.3	76.2	85.2	65.9
Shared with other nursing deans	14.8	33.3	33.3	17.1
Shared with other alumni	25.9	33.3	29.6	26.8
Sent to H.S. guidance counselors	16.7	9.5	11.1	12.2
Other	7.4	0	3.7	4.9
D. <u>Actions Taken by Deans</u>				
None	9.3	4.8	3.7	9.8
Work with H.S. guidance counselors to encourage enrollment at school	25.9	33.3	37.0	36.3
Task force formed to improve our image	9.3	4.8	11.1	12.2
Worked with alumni	27.8	42.9	33.3	36.6
Developed videos/brochures	37.0	42.9	51.9	43.9
Used mass media	16.7	23.8	22.2	22.0
Worked with other nursing deans	24.1	47.9	33.3	22.0
Faculty are engaging in scholarly activities	48.1	38.1	44.4	39.0
Developed joint appointments for faculty	13.0	28.6	11.1	31.2
Other	7.4	0	11.1	2.4

The information sought, sources of information, ways information is channeled, and actions that have been taken to counteract the image of the program at the dean's school are summarized in Table 4. Of the actions that have been taken to improve the image of their schools, the deans were asked to select one that they believed would be the most productive. Sixty-one percent of the deans in state-supported schools did not list a factor. Several deans stated that one factor alone would not be that productive. Of the actions that were listed as the most productive, 9% listed actions in the "other" category that consisted of (a) faculty and student service to the community, (b) unique services to the community such as a hotline for children home alone after school, and (c) increasing publicity. Six percent believed that the most productive action was working with high school guidance counselors, 6% believed the most productive action was working with alumni, and another 6% believed that developing videos and brochures was the most productive action for this factor. No specific reasons were given for these actions. Clearly, these results indicate that there is no consensus regarding the best way for deans from state-supported schools to improve the image of their programs.

Only 15% of the deans indicated that they had future plans to resolve the image problem. These plans included: (a) improved media display, (b) career fairs, (c) nursing education day, (d) working with alumni, (e) working with

high school guidance counselors, (f) starting a master's program, (g) endowing a chair for nursing, and (h) increasing the visibility of the profession to the public.

The factor that ranks second in impact for state-supported schools is the image of nurses and the image of the profession of nursing. The information sought, sources of information, ways information is channeled, and actions that have been taken regarding this factor are summarized in Table 5.

The actions listed by deans as being the most productive for the image of nursing are as follows: (a) 11% listed working with high school guidance counselors, (b) 6% listed developing videos or brochures, (c) 6% listed using mass media, and (e) 6% noted that faculty engaged in scholarly activities was the most productive action to enhance the image of nursing. Reasons given for these actions include (a) the need to educate the public about nursing and (b) that these actions seem to be the only reasonable answer to the problem. Again, a wide range of actions seems to be necessary to counteract the problem of the image of nurses and the image of the profession of nursing. Sixty-one percent of the deans did not list a single factor as being the most productive.

Twenty percent of the deans listed future plans to deal with the image problem. These actions include (a) working with high school counselors, (b) using mass media, (c)

Table 5

Kinds and Sources of Information Sought, Channeling Information, and Actions Taken
by Deans Regarding the Image of Nurses and the Profession of Nursing

	Baccalaureate Schools of Nursing			
	State-Supported/ Medical Centers n=54 %	Private n=21 %	Religious n=27 %	With A Graduate School n=41 %
A. <u>Kinds of Information Sought</u>				
Reasons students choose baccalaureate nursing	63.0	76.2	70.4	56.1
Number applying to your college interested in nursing	50.0	57.1	81.5	65.9
"Picture" of the current image of nursing in the country today	66.7	76.2	74.1	63.4
Feedback from employers of how well grads perform	77.8	76.2	88.9	70.7
Grads' image of themselves	68.5	57.1	70.4	46.3
"Picture" of the image of nursing on campus	50.0	47.6	51.9	46.3
Other	0	14.3	3.7	0
B. <u>Sources of Information</u>				
A.A.C.N.	35.2	33.3	33.3	48.8
N.L.N.	38.9	52.4	59.3	46.3
A.N.A.	42.6	52.4	44.4	36.3
Professional Journals	61.1	71.4	74.1	51.2
Books	37.0	47.6	51.9	22.0
Employers	72.2	76.2	77.8	58.5
Graduates	74.1	76.2	85.2	48.8
Other nursing deans	48.1	57.1	59.3	34.1
Media	59.3	61.9	55.6	48.8
H.S. guidance counselors	42.6	38.1	44.4	36.3
Campus administrators	48.1	47.6	44.4	26.8
Other	11.1	4.8	3.7	7.3
C. <u>How Information has Been Channeled</u>				
Kept for own use	25.9	28.6	22.2	31.7
Sent to appropriate vice-president	24.1	47.6	44.4	26.8
Sent to associate/assistant dean(s)	16.7	23.8	11.1	43.9
Sent to department chair(s)	9.3	14.3	14.8	39.0
Sent to appropriate committee(s)	44.4	42.9	44.4	48.8
Sent to faculty	77.8	71.4	74.1	68.3
Shared with other nursing deans	29.6	57.1	44.4	29.3
Shared with alumni	11.1	28.6	33.3	24.4
Sent to H.S. guidance counselors	22.2	42.9	22.2	22.0
Other	9.3	4.8	7.4	2.4
D. <u>Actions Taken by Deans</u>				
None	7.4	0	3.7	4.9
Worked with H.S. guidance counse- lors to increase enrollments	35.2	66.7	63.0	46.3
Task force formed to improve image	5.6	4.8	14.8	14.6
Work with alumni	14.8	33.3	40.7	39.0
Developed videos and/or brochures	35.2	57.1	55.6	43.9
Used mass media	24.1	38.1	25.9	24.4
Worked with other nursing deans	40.7	52.4	51.9	24.4
Faculty are engaging in scholarly activities	46.3	47.6	44.4	48.8
Developed joint appointments for faculty	14.8	28.6	11.1	31.2
Other	11.1	9.5	11.1	12.2

working with other deans, (d) increasing marketing strategies, (e) working with state nursing associations, and (f) career days. One dean wrote, "I have plans to do something, but I'm not sure what!"

The factors -- (a) changing state funds and (b) the inability of the discipline to come to a consensus about the entry-into-practice issue -- share third place in impact on the schools of nursing with a score of 3.11. The information sought, sources of information, ways information is channeled, and actions that have been taken to counteract these factors are summarized in Tables 6 and 7 respectively.

Fifty-two percent of the deans did not select a most productive action for accommodating their schools to changing state funds. Thirteen percent listed the most productive action was networking with other state-supported schools, and 5% listed the most productive action was that they had called, written, and/or visited legislators. Three deans stated that the reason the above actions were the most productive was that "There is power if we work in numbers." Twenty-nine percent of deans indicated that they had future plans. The plans that were listed were (a) working with university lobbyists, (b) writing grants, (c) increasing fund raising, (d) developing legislative liaisons, and (e) working with alumni.

Table 6

Kinds and Sources of Information Sought, Channeling Information, and
Actions Taken by Deans Regarding Changing State Funds

Baccalaureate Schools of Nursing				
	State-Supported/ Medical Centers n=54 %	Private n=21 %	Religious n=27 %	With A Graduate School n=41 %
A. <u>Kinds of Information Sought</u>				
Amounts available for specific projects	44.4	14.3	22.2	39.0
Totals allotted to each school within the state	42.6	19.0	3.7	43.9
Funding trends	57.4	47.6	33.3	56.0
Names of legislators to call, write, visit	37.0	42.9	22.2	33.6
Other	9.3	0	0	0
B. <u>Sources of Information</u>				
State nurses' association	25.9	33.3	18.5	17.1
Legislative Liaison	27.8	33.3	11.1	26.8
College/University president	63.0	33.3	22.2	46.3
Newspapers	33.3	33.3	22.2	31.7
Professional meetings	40.7	38.1	22.2	26.8
Deans' Council	37.0	38.1	7.4	26.8
Other	3.7	4.8	3.7	9.8
C. <u>How Information Has Been Channeled</u>				
Kept for own use	27.8	23.8	22.2	24.4
Sent to appropriate vice-president	14.8	33.3	29.6	19.5
Sent to associate/assistant dean(s)	18.5	9.5	3.7	26.8
Sent to department chair	14.8	0	3.7	24.4
Sent to appropriate committee(s)	37.0	14.3	7.4	29.3
Sent to faculty	55.6	33.3	22.2	46.3
Shared with alumni	9.3	9.5	3.7	14.6
Shared with other nursing deans	25.9	28.6	22.2	22.0
Shared with state nurses' assoc.	13.0	19.0	11.1	19.5
Other	7.4	4.8	3.7	4.9
D. <u>Actions Taken by Deans</u>				
None	18.5	9.5	7.4	7.3
Worked closely with state nurses' association	33.3	28.6	18.5	26.8
Called, wrote, visited legislators	31.5	33.3	22.2	34.1
Attended congressional hearings/ meetings	16.7	0	0	12.2
Lobbied in person	16.7	4.8	3.7	14.6
Networked with other state-supported schools	38.9	4.8	3.7	29.3
Wrote for state nurses' association journal	3.7	0	0	7.3
Developed a special task force	5.6	0	3.7	0
Supplemented funds by fund raising and scholarships	24.1	19.0	7.4	17.1
Other	9.3	4.8	7.4	12.2
E. Amount of State Funding has:				
Increased	29.6	4.8	0	19.5
Decreased	27.8	28.6	18.5	24.4
Remained the same	16.7	19.0	29.6	22.0

Table 7

Kinds and Sources of Information Sought, Channeling Information, and Actions Taken by Deans Regarding the Inability of the Discipline to Come to A Consensus About the Entry-Into-Practice Issue

	Baccalaureate Schools of Nursing			
	State-Supported/ Medical Centers n=54 %	Private n=21 %	Religious n=27 %	With A Graduate School n=41 %
A. <u>Kinds of Information Sought</u>				
Statistics regarding enrollments of the various nursing programs	55.8	81.0	66.7	46.3
Numbers of each type of graduate employed in the area	48.1	66.7	40.7	41.5
No additional information is needed, we have all we need	21.2	4.8	37.0	24.4
Facts from high school guidance counselors	9.6	9.5	7.4	7.3
Other	1.9	4.8	3.7	7.3
B. <u>Sources of Information</u>				
A.A.C.N.	38.5	42.9	37.0	41.5
N.L.N.	55.8	71.4	74.1	43.9
A.N.A.	50.0	76.2	51.9	39.0
Other nursing deans	48.1	57.1	59.3	24.4
Nursing service administrators	44.2	42.9	55.6	31.7
The consumers/public	13.5	14.3	18.5	12.2
High school guidance counselors	7.7	28.6	7.4	7.3
Other	15.4	4.8	11.1	4.9
C. <u>How Information Has Been Channeled</u>				
Kept	17.3	23.8	22.2	17.1
Sent to appropriate vice-president	21.2	66.7	37.0	17.1
Sent to associate/assistant dean(s)	15.4	23.8	7.4	29.3
Sent to appropriate committee(s)	38.5	33.3	18.5	26.8
Sent to faculty	53.8	85.7	66.7	31.7
Sent to associate degree administrators	13.5	4.8	14.8	4.9
Sent to high school guidance counselors	5.8	9.5	7.4	7.3
Other	1.9	0	3.7	4.9
D. <u>Actions Taken by Deans</u>				
None	13.5	4.8	18.5	17.1
Worked more closely with high school guidance counselors	13.5	14.3	14.8	19.5
Faculty committee(s) are working on ways to articulate with associate degree programs	25.0	57.1	29.6	29.3
I have a plan for articulation with associate degree programs	26.9	23.8	33.3	12.2
Media presentations, stating the advantages of a baccalaureate nursing education	19.2	9.5	25.9	14.6
Other	7.7	9.5	14.8	4.9

The action that deans listed as the most productive for the factor of the inability of the discipline to come to a consensus about the entry-into-practice issue was faculty committees working on ways to articulate with associate degree programs (9%). Other actions listed were: (a) developing registered nurse programs, (b) working with nursing service administrators, and (c) working with other deans. No specific reasons were given, but these efforts demonstrate that deans are working in a variety of ways to increase enrollments in their programs. Sixty-three percent of the deans did not list a factor that they believed to be the most productive. Only 20% of the deans have future plans. Most of these plans were in the "other" category and included (a) working with nursing leaders of professional organizations to build a consensus, (b) increasing media presentations regarding the advantages of a baccalaureate degree, (c) assisting associate degree programs to ease articulation with baccalaureate programs, (d) supporting state efforts to write a new nursing practice act, (e) working with high school counselors, and (f) educating the public.

Private Colleges and Universities

The factors that most affect private baccalaureate schools of nursing are (a) image of my school's program (3.42), (b) women selecting nontraditional roles (3.33), and (c) declining enrollments (3.19). However, more than 33% of

the deans responded that the single factor having the most impact is declining enrollments. Another 10% of the deans listed the image of nurses and the profession of nursing, and 19% did not list a single factor. The image of my program as the most important factor is listed only once.

The factors that the deans from private schools believe they can influence are (a) the image of my school's program (3.33), (b) the curriculum of my school (3.14), and (c) the question of the ability to provide a quality education at the undergraduate level (3.04). These are the same three factors that nursing deans in state-supported schools felt able to influence, although not in the same order. Again, this indicates that nursing deans feel most capable of influencing factors at their own school. They do, however, seem to feel influential in confronting the issue of whether or not a quality education can be provided for nurses at the undergraduate level. Perhaps deans feel capable of influencing this factor because the issue of the ability to provide a quality education at the undergraduate level has been discussed in nursing circles for a number of years and it is a major concern to nursing leaders today.

The information sought, sources of information, ways information is channeled, and actions that have been taken to counteract the image of the program in private school programs are summarized in Table 4. When deans were asked which action that had been taken to improve the image of

their program was the most productive, more deans noted that the most productive action was working with high school guidance counselors (24%). This action is followed by (a) faculty engaging in scholarly activities (14%), (b) using media (10%), and (c) developing videos or brochures (5%). Forty-eight percent of the deans did not list an action as being the most productive.

Forty-seven percent of the private school deans have future plans to improve the image of their programs; however, only five listed what these plans are. The future plans listed included (a) working with high school guidance counselors, (b) working with alumni, and (c) faculty engaging in scholarly activities.

The information sought, sources of information, ways information is channeled, and actions that have been taken to counteract the effects of women selecting nontraditional roles are summarized in Table 8. The most productive actions deans in private schools listed to counteract this factor are (a) working to improve the image of nursing (29%) and (b) working with either the admissions or office of student affairs. Forty-three percent of the private school deans did not identify a most productive factor. Forty-eight percent of private school deans indicated that they have future plans to counteract this problem. The future plans included (a) public relations strategies, (b) marketing strategies,

Table 8

Kinds and Sources of Information Sought, Channeling Information, and Actions Taken by Deans Regarding Women Selecting Nontraditional Roles

Baccalaureate Schools of Nursing				
	State-Supported/ Medical Centers n=54 %	Private n=21 %	Religious n=27 %	With A Graduate School n=41 %
A. <u>Kinds of Information Sought</u>				
Statistics	31.5	52.4	25.9	34.1
Number of majors on campus	31.5	38.1	33.3	36.6
National trends	57.4	66.7	16.3	41.5
Other	7.4	0	3.7	2.4
B. <u>Sources of Information</u>				
A.A.C.N.	25.9	38.1	18.5	34.1
N.L.N.	27.8	33.3	37.0	24.4
A.N.A.	18.5	19.0	29.6	24.4
Other professional organizations	11.1	28.6	29.6	22.0
Educational studies	37.0	42.9	33.3	31.7
Admissions office	29.6	47.6	40.7	29.3
University information listing degrees granted	22.2	28.6	18.5	17.1
Other	14.8	4.8	11.1	12.2
C. <u>How Information Has Been Channeled</u>				
Kept for own use	25.9	23.8	22.2	26.8
Sent to appropriate vice-president	22.2	57.1	59.3	22.0
Sent to associate/assistant dean(s)	20.4	28.6	11.1	31.7
Sent to appropriate committee(s)	33.3	38.1	48.1	43.9
Sent to faculty	51.9	66.7	59.3	43.9
Shared with alumni	9.3	9.5	22.2	12.2
D. <u>Actions Taken by Deans</u>				
None	7.4	9.5	11.1	14.6
Worked closely with the admissions or student affairs office	29.6	42.9	51.9	29.3
Had open houses	14.8	33.3	25.9	19.9
Developed marketing strategies to recruit students	27.8	47.6	25.9	29.3
Worked with high schools and/or guidance counselors	29.6	47.6	18.5	31.7
Worked to improve the image of nursing	42.6	61.9	48.1	26.8
Developed special task force	3.7	28.6	7.4	4.9
Other	1.9	0	3.7	4.9

(c) attending college nights, (d) making the program more accessible, and (e) using teleconferencing.

The information sought, sources of information, ways information is channeled, and actions taken to counteract declining enrollments are summarized in Table 9. The most productive action identified by deans is working closely with the admissions or student affairs offices (33%). Other actions noted as most productive are in the category of "other" (19%) and include (a) working to increase state funding, (b) restructuring the curriculum, and (c) marketing to recruit associate degree and diploma nurses. Deans indicate that showing a personal interest through increasing personal contacts is beneficial in alleviating this problem. Sixty-seven percent of deans in private schools have future plans to alleviate the effects of declining enrollments. These plans include (a) increasing personal contacts, (b) increasing registered nurse recruitment, (c) developing a retention program, (d) appealing to undecided majors, (e) increasing publicity and public relations, (f) working with alumni and (g) adapting the program schedule to meet the needs of working students.

Religious Colleges and Universities

The top three factors reported to impact baccalaureate schools of nursing in religious colleges and universities are the same as those that affect private schools, but they are not reported in the same order. In religious schools,

Table 9

Kinds and Sources of Information Sought, Channeling of Information, and
Actions Taken by Deans Regarding Declining Enrollments

	Baccalaureate Schools of Nursing			
	State-Supported/ Medical Centers n=54 %	Private n=21 %	Religious n=27 %	With A Graduate School n=41 %
A. <u>Kinds of Information Sought</u>				
Statistics	66.7	95.2	81.5	70.7
National trends	72.2	100.0	92.6	73.2
Number of names applying to university indicating an interest in nursing	75.9	81.0	81.5	80.5
Names of those taking SATS who indicate an interest in nursing	29.6	33.3	55.6	31.7
Other	27.8	19.0	11.1	12.2
B. <u>Source of Information</u>				
A.A.C.N.	51.9	76.2	55.6	61.0
N.L.N.	72.2	85.7	88.9	65.9
A.N.A.	53.7	47.6	51.9	33.7
Other professional organizations	14.8	33.3	22.2	26.8
Educational studies	33.3	42.9	48.1	39.0
Princeton testing service	13.0	14.3	22.2	14.6
Admissions office	81.5	95.2	92.6	90.2
Deans' council	18.5	38.1	33.3	22.0
Alumni	14.8	28.6	25.9	19.5
State and regional meetings	53.7	52.4	48.1	56.1
Other	16.7	33.3	22.2	17.1
C. <u>How Information Has Been Channeled</u>				
Kept for own use	35.2	33.3	44.4	26.8
Sent to appropriate vice-president	38.9	67.7	63.0	31.7
Sent to associate/assistant dean(s)	31.5	33.3	22.2	48.8
Sent to department chair(s)	11.1	14.3	18.5	41.5
Sent to appropriate committee(s)	48.1	76.2	63.0	68.3
Sent to other deans on campus or other nursing deans	5.6	28.6	25.9	14.6
Sent to faculty	77.8	90.5	74.1	73.2
Shared with alumni	18.5	19.0	40.7	31.7
Other	24.1	23.8	29.6	22.0
D. <u>Actions Taken by Deans</u>				
None	0	0	3.7	2.4
Worked closely with admissions or student affairs office	61.1	90.5	85.2	68.3
Called prospective students, wrote letters to prospective students	72.2	71.4	81.5	68.3
Had open houses	48.1	71.4	74.1	53.7
Developed videos and/or brochures	53.7	61.9	51.9	51.2
Worked with alumni	38.9	57.1	51.9	56.1
Worked with high schools and/or H.S. guidance counselors	51.9	76.2	63.0	63.4
Attended career days/college days	57.4	71.4	66.7	73.2
Recruited from other majors on campus	16.7	33.3	14.8	31.7
Made the program more accessible	40.7	76.2	33.3	39.0
Developed task force	18.5	23.8	33.3	22.0
Other	16.7	19.0	7.4	4.9

declining enrollments clearly has the most impact (3.51). Declining enrollments is followed by image of my school's program (3.40), and women selecting nontraditional roles (3.33). These three factors are same factors identified in the same order as being the most important factors impacting religious schools. The information sought, sources of information, ways information is channeled, and actions that have been taken to counteract these factors are summarized in Tables 9, 4, and 8.

The deans in religious schools concur with deans in both state-supported and private schools with regard to the factors which they can influence. These factors are (a) the image of my program (3.37), the curriculum plan of my school (3.37), and (b) the question of the ability to provide a quality education at the undergraduate level (2.85), and (c) the inability of the discipline to come to a consensus about the entry-into-practice issue (2.63). Deans from different types of baccalaureate schools agree on some of the factors that they can influence.

The most productive action identified by deans in religious schools to counteract declining enrollments is to work closely with the admission or student affairs office (22%). Other actions noted as productive were (a) worked with high schools and/or guidance counselors and (b) made the program more accessible. No specific reasons were given for these actions.

Seventy-eight percent of deans have future plans to counteract the effects of declining enrollments. These actions include (a) more personal contacts with students, (b) using students to recruit, (c) attracting more men, (d) increasing scholarships, (e) increasing registered nurse recruitment, (f) developing summer short courses, (g) writing grants, (h) developing videos, and (i) working closely with the admissions office.

No one action was listed as the most productive action to counteract the image of the school's program. Deans noted each of the following actions as being productive (a) developed videos or brochures (7.4%), (b) used mass media (7.4%), (c) developed joint appointments (7.4%), and (d) faculty engaged in scholarly activities (7.4%). Forty-eight percent did not list a factor as being the most productive.

Thirty percent of the deans acknowledged future plans for this factor and slightly more than thirty-three percent (33.3%) of this group listed what these plans would entail. Future actions listed are (a) nursing education day, (b) increasing visibility of the profession to the public, and (c) working with alumni and guidance counselors.

The third factor impacting religious schools is women selecting nontraditional roles. The most productive actions listed for this factor are in the category of "other" and include (a) marketing strategies, (b) public relations strategies to promote nursing, (c) increasing the variety of

instructional modes for reinforcement of weaker students, (d) evening and weekend programs, and (e) use of a nurse recruiter. No specific reasons were given for these actions, but certainly all of them have merit and may encourage more women to enter nursing. Fifty-six percent of the deans did not list a factor as most productive.

Thirty-seven percent of religious school deans have future plans that include (a) marketing strategies, (b) public relations strategies, (c) evening and weekend programs, (d) working with the admissions office, (e) increasing recruiting efforts, and (f) making the program more accessible.

Colleges and Universities with a Graduate School

The factors that affect baccalaureate schools of nursing connected with a graduate program are (a) image of nurses and the profession of nursing (3.26), (b) women selecting nontraditional roles (3.24), and (c) image of my school's program (3.17). These factors vary only slightly from those in the other three categories of schools. The information sought, sources of information, ways information is channeled, and the actions that have been taken to counteract these factors are summarized in Tables 5, 8, and 4.

Seventeen percent of the deans did not list one factor as having the most impact, but of the 34 who did, 17% listed declining enrollments and 9% listed the image of my school's

program. Only one dean listed women selecting nontraditional roles as the single most important factor.

The factors that deans in graduate schools believe they are more able to influence include (a) image of my school's program (3.36), (b) curriculum plan at my school (3.19), and (c) number of faculty who engage in research and scholarly activities (3.17). The first two factors are the same factors mentioned most often by the other deans. The third factor might demonstrate a difference in the emphasis on research and scholarly activities in undergraduate and graduate programs. Surely, more research is expected in graduate programs, and deans with graduate schools would feel more ability to influence this type of activity.

Image of nurses and the image of the profession of nursing is the factor with the most impact on baccalaureate schools with a graduate program. The most productive actions noted are (a) using mass media and (b) faculty engaging in scholarly activities. No specific reasons were given for these actions. Fifty-one percent of the deans did not list a factor as being the most productive.

Twenty-nine percent of the deans who reported listed future plans for counteracting the factor of image of nurses and the image of the profession of nursing. The plans listed are consistent with those of other schools and include (a) working with the state nurses' association, (b) having a

specific consulting team for a workshop, (c) planning career days, (d) marketing, (e) appointing task forces, and (f) using the media.

Women selecting nontraditional roles is the factor with the second highest impact on schools with graduate programs. The most productive action noted to counteract this factor is developing market strategies to recruit students. Deans believe it is the most cost-effective and efficient action to counteract the problem. Twenty percent of deans have future plans for this factor. These plans include (a) sending questionnaires to students, (b) changing class schedules, (c) working with high school counselors, and (d) developing marketing strategies to promote nursing.

The most productive action selected to counteract the effects of image of the program is consistent with the action chosen by other schools: working with high school guidance counselors to encourage increased enrollments. Other actions listed were (a) worked with alumni and (b) developed joint positions with local hospital or medical center. No specific reasons were given for choosing these actions. Fifty-six percent of the deans did not report a most productive action.

Forty-two percent of deans with graduate schools had future plans. These plans were similar to those in other types of schools and included (a) improving media displays,

(b) seeking to endow a chair for nursing, (c) planning career fairs, (d) increasing contacts with alumni, (e) increasing recruiting efforts, and (f) increasing the number of nursing faculty on university committees.

Analysis of Environmental Impact

A score for total impact was computed by summing the individual scores for the eighteen factors. (The additional factors were omitted because so few were added.) The mean score for each category of school was computed and a one-way analysis of variance was conducted to determine if there were significant differences in impact among the categories of schools. No significant differences were found. The results of the analysis are contained in Table 10. Even though the impact scores for the top three factors were slightly higher for the religious schools, the group means of the impact scores did not vary significantly. In fact, the mean scores were within one point of each other.

A total influence score was computed in a similar manner. Again, a one-way analysis of variance was conducted to determine if there were differences among the mean scores for the groups. No significant differences were found. The results are found in Table 11.

Table 10

Analysis of Differences in Total Environmental Impact
on Four Types of Baccalaureate Schools of Nursing

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	3	41.38	13.79	.1226	.9466
Within Groups	139	15638.61	112.50		
Total	142	15680.00			

Group	Count	Mean	SD
State and Medical Centers	54	50.31	9.05
Private	21	51.52	10.96
Religious	27	51.29	11.73
With A Graduate Program	41	51.43	11.51
Total	143	51.00	10.50

Table 11

Analysis of Differences in Deans' Abilities to Influence
Environmental Factors Impacting Four Types of Baccalaureate
Schools of Nursing

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	3	309.42	103.14	1.1585	.3280
Within Groups	139	12375.20	89.03		
Total	142	122684.62			

Group	Count	Mean	SD
State and Medical Centers	54	42.65	9.44
Private	21	41.60	12.31
Religious	27	40.96	9.125
With A Graduate Program	41	44.93	7.83
Total	143	42.82	9.45

Relationships Between the Deans' Tenure in Office and (a) the Deans' Perceptions of Environmental Impact and (b) the Deans' Influence on Environmental Impacts

The possibility existed that deans who had been in their positions for a longer period of time might have experienced less impact from the factors and possibly believed they have more influence due to the nature of their experiences. Therefore, a two-tailed Pearson correlation coefficient was computed for (a) total impact and number of years in current position and (b) total influence and number of years in current position. In the first correlation, impact by number of years in current position, there is a very slight negative but insignificant correlation ($r = -.11$, $p > .05$). In the second correlation, total influence by number of years in current position, there is also a negative and insignificant correlation ($r = -.09$, $p > .05$).

Comparison of Respondents and Nonrespondents

In order to determine whether the findings could be generalized to the population, twenty percent of the nonrespondents were sent a follow-up letter with a short questionnaire (Appendix E). A total of 39 letters were sent; 27 were returned, but only 25 (64%) were useable (Table 12).

Table 12

Comparison of Respondents and a Sample of Nonrespondents on Five Demographic Variables

	Baccalaureate Schools of Nursing								
	State-Supported/ Medical Centers		Private		Religious		With A Graduate Program		
	R ^a	NR ^b	R	NR	R	NR	R	NR	
#Sent	128	13	50	8	63	8	103	5	
#Returned	54	11	21	5	27	5	41	4	
<u>Number of Full-Time Students</u>									
1980	\bar{X}	84.0	84.6	101.0	80.0	144.0	71.6	222.0	145.0
	SD	99.0	61.8	134.0	45.0	167.0	68.0	214.0	125.8
1985	\bar{X}	92.0	108.0	77.0	73.8	125.0	97.0	232.0	189.0
	SD	90.0	30.7	92.0	15.0	143.0	30.0	108.0	92.0
<u>Number of Graduates</u>									
1980	\bar{X}	36.0	37.0	37.0	42.0	54.0	61.0	108.0	42.0
	SD	40.0	33.9	27.0	30.0	54.0	14.0	114.0	42.0
1985	\bar{X}	36.0	43.0	32.0	41.0	53.0	144.0	118.0	86.0
	SD	34.0	30.7	21.0	8.0	43.0	20.0	103.0	34.6
<u>Number of Full-Time Faculty</u>									
1980	\bar{X}	9.0	11.5	12.0	11.6	14.0	9.8	36.0	13.0
	SD	8.0	6.0	8.0	6.0	10.0	8.8	37.0	12.0
1985	\bar{X}	10.0	12.0	9.0	11.6	14.0	12.8	36.0	18.0
	SD	8.0	6.0	6.0	3.6	9.0	7.0	30.0	7.7
<u>Amount of Federal Funds</u>									
1980	\bar{X}	28,362	909	14,197	34,000	12,445	176,850	205,809	
	SD	74,203	9,491	40,060	51,800	48,536	667,593	657,114	Data
1985	\bar{X}	29,083	41,666	476	42,400	3,814	97,500	167,281	Missing
	SD	93,225	143,739	2,181	26,816	14,899	337,750	452,639	
<u>Quality of Applicant Pool %</u>									
Increased		19.0	25.0	23.8	0	14.8	0	12.2	0
Decreased		33.0	25.0	47.6	80.0	40.7	80.0	39.0	25.0
Remained Same		35.0	50.0	28.6	20.0	33.3	20.0	43.9	75.0

Note: There were two programs started after 1980 in the religious category and two new programs and one restructured after 1980 in the state supported category.

R = Respondents
NR = Nonrespondents

Even though the number of nonrespondents was small, some of the information may be useful. There was very little difference between respondents and nonrespondents in the state-supported and medical school category in the number of full-time students. However, the nonrespondents from the other types of schools had much lower enrollments than those who had initially responded to the questionnaire. Nonrespondents from religious schools and schools with a graduate program did not report declines in their enrollments from 1980 to 1985, but their reported enrollments were much lower than the enrollments in the schools that had responded initially. The only nonrespondents that reported a decline in enrollments from 1980 to 1985 were the deans from private colleges and universities. It would seem that those deans who initially responded to the questionnaire were at schools with higher enrollments and were, therefore, "better off" than those who did not respond originally to the questionnaire.

The numbers of graduates were the same or higher for respondents and nonrespondents in state-supported and medical centers and for private colleges and universities in 1980 and 1985. Graduates were higher for nonrespondents than respondents in 1980 in religious schools. In 1985, however, the graduates for religious schools were much lower for nonrespondents than respondents. The inconsistencies in these numbers probably reflect the small sample size.

There were minimal differences in the number of full-time faculty between respondents and nonrespondents in state-supported and medical centers and private schools. The nonrespondents from religious schools and schools with a graduate program show much lower numbers of faculty in 1980 and 1985.

With a few exceptions nonrespondents reported receiving more federal funds than respondents. The nonrespondents from schools with graduate programs did not report this information.

The final demographic variable yields an interesting observation. Nonrespondents in the categories of private, religious, and schools with a graduate program reported that the quality of the applicant pool had either decreased or remained the same from 1980 to 1985. These were the same schools that reported fewer numbers of full-time students. The literature reports that schools are being faced with the dilemma of lowering their standards or closing (Rosenfeld, 1987).

Summary

Respondents to the questionnaire reported downward shifts in the number of students for private and religious colleges and universities while state-supported and schools with graduate programs had slight increases in enrollments. Numbers of graduates were staying the same or increasing slightly in the category of state-supported and connected with a medical center and graduate schools. Private and

religious colleges reported graduates to be down. Federal funding was reported to be down in all schools with the exception of state-supported and medical centers. Private funding was reported to be up in all schools with the exception of private schools.

The top three factors that impacted upon baccalaureate schools of nursing and the factors that deans felt capable of influencing were reported. For each factor of impact the information sought, sources of information, ways information was channeled, and actions that have been developed were discussed and presented in tables. The most productive action and reasons for actions were given for each factor, and future actions were also presented for each factor. One-way analyses of variances showed no differences among categories of schools in either the total environmental impact or the influence perceived by deans. Finally, two-tailed Pearson correlation coefficients were computed which showed no correlation between the number of years of deaning and the perceived impact or influence.

CHAPTER 5

SUMMARY, CONCLUSIONS, DISCUSSION, AND RECOMMENDATIONS

This chapter includes a summary, conclusions, a discussion, and recommendations. The summary includes the problem, the research methodology, and the findings. The conclusion contains the outcomes of the study. Recommendations include suggestions for further studies.

Summary

The purpose of this study was to describe how nursing deans collect and use information as they attempt to assure the quality and possibly the existence of their schools. It also contributes to the body of knowledge about the nursing deanship by describing the many activities in which deans are involved.

This study is important for several reasons. First, it described the factors that nursing deans have identified as having an impact on the future of their schools of nursing. Secondly, it identified the factors that deans feel capable of influencing. Next, for each of the top three factors of impact in each category of school the study identified the types of information sought, sources of information, ways information was channeled, the actions that have been taken to counteract the identified factor, the most productive action(s), and the future plans that were being made to counteract the factors. Deans from baccalaureate nursing

programs and other programs, as well as university administrators experiencing similar problems, may benefit from the variety of strategies used by the nursing deans in this study.

Six interviews were conducted in different types of baccalaureate schools (state-supported, private, religious, connected with a medical center, and connected with a graduate program). A survey was developed using the items obtained from the interviews as potential responses. The survey was sent to 344 deans of baccalaureate schools of nursing. Forty-two percent were returned. A follow-up study was conducted of 20% of the nonrespondents. Analysis of the data was descriptive, citing the top three factors of impact for each of four types of schools (state-supported and connected with a medical center were combined). For each factor, the kinds of information sought, sources of information, the ways information was channeled, actions that have been developed to counteract the effects of the factor, the most productive actions, and future actions that were being developed were described.

A total impact score was computed for each category of school by summing the deans' ratings of the perceived impact of the identified factors that are affecting the future of baccalaureate schools of nursing. A one-way analysis of variance was applied to determine if there were significant differences in mean impact scores among the groups of

schools. A score was computed in a similiar manner to determine how much influence deans from different types of baccalaureate schools of nursing believed they had on the factors. A one-way analysis of variance was applied to determine if there were significant differences in the mean influence scores among the groups of schools. No significant differences were found in either analysis ($\alpha = .05$). Finally, two-tailed Pearson correlation coefficients were calculated for (a) the total impact perceived by the dean and the number of years the dean had been in the current position and (b) the total influence the dean felt he or she had on the factors and the number of years the dean had been in the current position. Both correlations were negative and not significant ($\alpha = .05$).

Since the return rate for the questionnaire was low (42%), a follow-up study was conducted. Thirty-nine letters were sent to nonrespondents and 25 (64%) were returned. The respondents seemed to fare better than the nonrespondents in the important variable of full-time students. The nonrespondents in private schools, religious schools, and schools with a graduate program reported much lower enrollments than did the respondents in these types of schools. These same schools also reported that the quality of the applicant pool had either decreased or remained the same from 1980 to 1985. It is difficult to compare the two

groups due to the small sample size and limited number of returns.

The specific findings are presented by research question.

1. How are baccalaureate schools of nursing being affected by factors in their environments?

Both the literature and this study support the fact that baccalaureate schools of nursing are being adversely affected by a variety of factors in their environments. These factors may lead to declines in enrollments. The data from this study showed increases in enrollments in state-supported and medical centers, and in schools with graduate programs. Private and religious schools showed declines in enrollments and funds and would appear to be the most severely affected.

2. What factors in the environment do deans identify as currently affecting the future of their baccalaureate schools of nursing?

Eighteen factors were identified in the literature and by the interviews. The survey further identified a few other factors. The identified factors are primarily economic and demographic in nature; however, they also include changes in health care, issues of curricula and faculty, and the image of nursing.

The top three factors of impact identified for state-supported schools were (a) the image of my school's program,

(b) the image of nurses and the profession of nursing, and tied for third (c) changing state funds and the inability of the discipline to come to a consensus on the entry-into-practice issue. The top three factors of impact identified for private schools were (a) image of my school's program, (b) women selecting nontraditional roles, and (c) declining enrollments. The top three factors of impact for religious schools were (a) declining enrollments, (b) image of my program, and (c) women selecting nontraditional roles. The top three factors for graduate schools were (a) image of nurses and the profession of nursing, (b) women selecting nontraditional roles, and (c) image of my program.

It seems clear that deans are quite concerned about the image of their programs and the profession of nursing. However, when asked what single factor had the most impact, most of the deans who responded to the questionnaire listed declining enrollments. Perhaps, this is because having fewer students is the bottom line or the ultimate result of the impact of all the factors.

3. What information and informational sources do nursing deans use in gathering data about the factors affecting their schools?

Deans reported that they gather a great deal of information about all factors. The type of information gathered varied by the factor of impact. The type of information gathered for image of my school's program

included (a) reasons students choose baccalaureate nursing, (b) numbers of students applying that are interested in nursing, (c) "picture" of current image of the nursing profession in the country, (d) feedback from employers on how well graduates perform, (e) graduates' images of themselves, and (f) "picture" of the nursing image on campus.

The kinds of information gathered for image of nurses and the profession of nursing included the same factors deans gathered for image of my school's program.

The kinds of information gathered for changing state funds included (a) amounts available for specific projects, (b) amounts allotted to each school within the state, (c) funding trends, and (d) names of legislators to call, write, visit.

The kinds of information gathered for women selecting nontraditional roles included (a) statistics, (b) number of majors on campus, and (c) national trends.

The kinds of information gathered for declining enrollments included (a) statistics, (b) national trends, (c) number of names applying to the university indicating an interest in nursing, and (d) names of those taking SATS who indicate an interest in nursing.

The sources of information were as diverse as the information itself. The sources were local, state,

regional, and national. More specifically, the sources varied by factor.

The sources of information for the image of my school's program included (a) the American Association of Colleges of Nursing (A.A.C.N.), (b) the National League for Nursing (N.L.N.), (c) the American Association of Nurses (A.N.A.), (d) professional journals, (e) books, (f) employers, (g) graduates, (h) other nursing deans, (i) media (TV, radio), (j) high school guidance counselors, and (k) campus administrators.

The sources of information for image of nurses and the profession of nursing were the same as the image of my school's program.

The sources of information for changing state funds included (a) state nurses' association, (b) legislative liaison, (c) college/university president, (d) newspapers, (e) professional meetings, and (f) deans' council.

The sources of information for the inability of the discipline to come to a consensus on the entry-into-practice issue included (a) the A.A.C.N., (b) the N.L.N., (c) the A.N.A., (d) other nursing deans, (e) nursing service administrators, (f) the consumers/public, and (g) high school guidance counselors.

The sources of information for women selecting nontraditional roles included (a) the A.A.C.N., (b) the N.L.N., (c) the A.N.A., (d) other professional

organizations, (e) educational studies, (f) admissions office, and (g) university information listing degrees granted.

The sources of information for declining enrollments included (a) the A.A.C.N., (b) the N.L.N., (c) the A.N.A., (d) educational studies, (e) Princeton testing service, (f) admissions office, (g) deans' council, (h) alumni, and (i) state and regional meetings.

Several trends were noted regarding the type and the source of information. Nursing deans from private and religious schools use information from the American Association of Colleges of Nursing, with two exceptions, more frequently than state-supported schools or schools with graduate programs. The exceptions are that graduate schools make greater use of the American Association of Colleges of Nursing for information about (a) image of nurses and the profession of nursing and (b) the dilemma of the ability to provide a quality education at the undergraduate level.

Private and religious schools seek information about declining enrollments from more sources. Perhaps the reason is because these two types of schools seem to be more adversely affected by declining enrollments, and deans from these schools are more actively involved in solving this problem.

Deans from private and religious schools also use the National League for Nursing and the American Nurses'

Association more often for information about the top three factors, with one exception. This exception is that state-supported schools use the American Nurses' Association more often for information about declining enrollments. Deans in private and religious schools also document using professional journals, professional organizations, educational studies, and the admissions office more frequently than state-supported schools or schools with a graduate program.

Another interesting feature about the sources of information is that state-supported schools and schools with a graduate program responded more often to the category of "other." Perhaps this means that deans in private and religious schools use more traditional sources of information, while deans from the other schools have wider, more creative sources of information. Many of these "other" sources of information are internal sources. Perhaps the state-supported and graduate schools are large enough and funded well enough to have these resources while the religious and private schools are not.

4. How are nursing deans processing the information they receive?

The places that information was channeled varied minimally between the factors. The places information could have been channeled were (a) kept for own use, (b) sent to appropriate vice-president, (c) sent to associate/assistant dean(s), (d) sent to appropriate committee(s), (e) sent to

faculty, (f) shared with other nursing deans, (f) shared with alumni, (g) sent to high school guidance counselors, (h) shared with state nurses' association, (i) sent to associate degree administrators, and (j) other. What did vary was the pattern of information channeling.

More deans from schools with graduate programs tended to keep information for their own use with one exception -- declining enrollments. Perhaps, this is due to the overwhelming significance of this problem. More deans with graduate schools also sent information to assistant deans and to department chairs, while more deans from private and religious schools were more likely to send information for all factors "up the organization" to vice presidents. It would seem that schools with graduate programs are more complex and decentralized. This decentralization may well be due to their size and availability of resources. It may also be that the private and religious schools are feeling more vulnerable and want to keep administrators in constant touch with the various problems.

This feeling of vulnerability and the need to share information may also be the reason why more deans in private and religious schools indicated that they sent more information to faculty, alumni, and also to other nursing deans. Also, more private and religious school deans set up committees to resolve problems for the top factors of declining enrollments, women selecting nontraditional roles,

and the question of the ability to provide a quality education at the undergraduate level. More deans with graduate schools used committees for the other top factors: image of my school's program and image of nurses and the profession of nursing.

5. What actions are being taken by deans and/or their schools of nursing to enhance or counteract the effects of environmental factors on their programs?

Nursing deans are involved in a large number of activities to counteract the factors that are impacting their programs. The activities vary according to the factor.

The actions taken by deans for the image of my school's program and for the image of nurses and the profession of nursing were the same. The actions that were taken were (a) none, (b) worked with high school guidance counselors to encourage enrollment at school, (c) task force formed to improve our image, (d) worked with alumni, (e) developed videos and brochures, (f) used mass media, (g) worked with other nursing deans, (h) faculty are engaged in scholarly activities, and (i) developed joint appointments.

The actions taken by deans for changing state funds were (a) none, (b) worked closely with state nurses' association, (c) called, wrote, visited legislators, (d) attended congressional hearings and meetings, (e) lobbied in person, (f) networked with other state-supported schools,

(g) wrote for state nurses' association journal, (h) developed a special task force, and (i) supplemented funds by fund raising.

The actions taken by deans for the inability of the discipline to come to a consensus on the entry-into-practice issue were (a) none, (b) worked more closely with high school guidance counselors, (c) faculty committee(s) worked on ways to articulate with associate degree programs, (e) media presentation, stating the advantages of a baccalaureate nursing education.

The actions taken by deans for women selecting nontraditional roles were (a) none, (b) worked closely with the admissions or student affairs office, (c) had open houses, (d) developed marketing strategies to recruit students, (e) worked with high schools and/or guidance counselors, (f) worked to improve the image of nursing, and (g) developed special task force.

The actions taken by deans for declining enrollments were (a) none, (b) worked closely with admissions or student affairs office, (c) called or wrote letters to prospective students, (d) had open houses, (e) developed videos and/or brochures, (f) worked with alumni, (g) worked with high schools and/or guidance counselors, (h) attended career days/college days, (i) recruited from other majors on campus, (j) made the program more accessible, and (k) developed task force.

Although the types of actions deans took were the same across the categories of programs, the amount of involvement varied a great deal. For example, more deans in private and religious schools worked with high school guidance counselors and the admissions office, developed brochures and videos, called and wrote students, and had open houses than did the deans from the other types of schools. In addition, fewer deans from private and religious schools have taken "no action" regarding the image of their program and the image of nursing.

More private school deans formed task forces to study declining enrollments and women selecting nontraditional roles than did the deans from the other types of schools. However, fewer private school deans have formed task forces to improve the image of their programs. More private school deans than deans from the other categories of schools indicated they are more likely to recruit from other majors on campus, to work with other deans, and to use mass media. In addition, more private school deans indicated they have made their programs more accessible to students with weekend and evening classes and flexible schedules.

Fewer graduate school deans indicated that they worked with other deans, but more graduate school deans developed joint appointments and more of their faculties engaged in scholarly activities than deans from the other types of schools. Graduate school deans indicated that their

faculties were particularly active in scholarly activities to counteract the factor of the image of nurses and the profession of nursing. More deans from state-supported schools reported that their faculties engaged in scholarly activities for image of my program than deans in the other types of schools. Fewer private school deans listed using scholarly activities as a way to improve the image of their programs.

The actions taken are creating the future of baccalaureate programs. They are wide in scope and are flexible. None of the deans mentioned the fact that the actions were taken as a result of changes in policy especially in relation to early retirements and tenure, which are mentioned in the literature as ways to cope with decreasing growth (Kemeny, 1975).

6. What actions are identified as being the most productive in enhancing or counteracting the effects of environmental factors on their programs?

The most productive actions depend on the factor of impact. The same types of activities were noted by each type of dean. The most productive actions identified by all deans to counteract the image of nursing programs are (a) faculty and student services to the community, (b) increasing publicity, (c) working with high school guidance counselors, (d) developing videos and brochures, (e) engaging in scholarly activities, (f) working with alumni,

and (g) using mass media. The only differences noted here were that deans from the private and religious schools frequently listed the use of mass media, while the deans from state-supported schools listed unique services to the community from faculty and students. In this particular instance the deans clearly had two different approaches to the solution to the problem of image of nurses and the profession of nurses.

The most productive actions to counteract the image of nurses and the profession of nursing identified by state-supported schools and schools with a graduate program were (a) working with high school guidance counselors, (b) working with alumni, and (c) using mass media, and (d) faculty engaging in scholarly activities.

The most productive actions identified by state-supported deans to counteract changing state funds were (a) networking with other state-supported schools and (b) contacting legislators.

The most productive action identified by state-supported deans for the inability of the discipline to come to a consensus on the entry-into-practice issue was the appointment of faculty committees to work on ways to articulate with associate degree programs.

The most productive actions for women selecting nontraditional roles identified by deans from private schools, religious schools, and schools with a graduate

program were (a) working with the admissions office or office of student affairs, (b) working with high school guidance counselors, (c) working to increase state funding, (d) marketing strategies to recruit students, (e) ways to make the program more accessible, and (f) working to improve the image of nursing.

The most productive actions for declining enrollments identified by deans from private and religious schools were (a) working with admissions or student affairs offices, (b) working with high school guidance counselors, (c) marketing strategies, and (f) working to increase funding.

There seemed to be no consensus on the most productive action for any of the factors. In fact, several deans stated that it would take combinations of actions to counteract these complex factors that are impacting nursing education and that no one best action could be identified. Several deans stated that they did not know which action would be the most productive. Many deans simply did not answer the question about the most productive factor. More deans from private and religious schools identified a factor as most productive than did the other deans. For example, for image of my program 39% of state-supported and medical school deans listed a most productive factor; 44% of deans with a graduate school listed a most productive factor. However, 52% of deans from private schools and 52% of deans from religious schools listed a most productive factor.

7. What plans are being made by deans to enhance or counteract the efforts of environmental factors on their programs?

The future plans were diverse and varied by factor. Future plans for image of my school's program included (a) working with high school guidance counselors, (b) media displays, (c) career days and fairs, (d) working with alumni, (e) faculty engaging in scholarly activities, and (f) ways to increase the visibility of nursing. Deans tended to identify the same type of activities; however, 47% of deans from private schools had plans, 42% of deans from schools with graduate programs had plans, 30% of deans from religious schools had plans, and 15% of deans from state-supported schools had future plans.

Future plans for the image of nurses and the profession of nursing included (a) working with high school guidance counselors, (b) using mass media, (c) working with other deans and state nurses' associations, (d) marketing, and (e) using consulting teams. Twenty-nine percent of deans from schools with a graduate program had future plans for this factor while 20% of deans from state-supported schools had future plans.

The future plans for women selecting nontraditional roles included (a) public relations, (b) marketing, (c) college nights, (d) increasing recruiting efforts, (e) making the program more accessible, and (f) working with

high school counselors. Forty-eight percent of private school deans had future plans, 37% of religious schools had future plans, and 20% of deans with a graduate school had future plans.

Future plans for declining enrollments included: (a) increasing personal contacts, (b) increasing public relations, publicity, and recruiting, (c) developing retention programs, (d) writing grants, (e) working with admissions office, and (f) increasing scholarships. Sixty-seven percent of private school deans had future plans and 78% of deans from religious schools had plans for this factor. It will be some time before the effects of these plans can be demonstrated.

Discussion

There are a wide variety of problems that confront nursing deans and adversely affect their programs. The environment of baccalaureate nursing schools is not as healthy as it has been in years past. Women are able to select from a wide variety of nontraditional careers and the enrollments in baccalaureate schools of nursing are down (Rosenfeld, 1987). The amount of federal funds to colleges and universities has declined and will probably continue to do so. The amount of private funds has increased in all categories of schools except private colleges and universities. Emotions run high in regard to the seriousness of these problems. It appeared from this study

that private and religious colleges and universities were more severely affected by declines than either state-supported schools or schools with a graduate program.

In addition to the funding and enrollment issues, the quality of the applicant pool is also a problem. The state-supported colleges and universities were the only schools to report an increase in the quality of the applicant pool. The other categories of schools reported that the quality of the pool had either decreased or remained the same. This decrease in quality of student is alarming. It is possible that the decrease in quality may be due to the fact that more and more of college age students are coming from lower socioeconomic and minority groups. Baccalaureate nursing educators will need to continue to recruit brighter students and to provide remediation for those students who may have educational deficiencies.

The image of nurses and the profession of nursing was reported to be a major factor of impact which undoubtedly affects the enrollment in baccalaureate nursing programs. Students will not be attracted to a profession that has little autonomy, low salaries, high stress and poor working conditions. It is time for the national nursing associations to provide the leadership for all baccalaureate schools of nursing and to work to resolve the issues which tarnish the image of nursing. This will necessitate a major

public relations effort and a nation-wide program to educate the public about nursing.

The final point for discussion is that of the use of systems theory for this study. The nature of a system -- inputs, throughputs, and outputs -- fit very well with the nature of a baccalaureate school of nursing and seemed to be a good way to approach this study. The use of systems theory provided a systematic way to trace the flow of information through a school of nursing. It also provided a way to compare and contrast the differences in the flow of information in each of the categories of schools. In fact, each category of baccalaureate school of nursing could be considered a subsystem within the larger system of baccalaureate nursing.

Conclusions

1. Nursing deans identified over 18 factors that impact the future of their nursing programs. The top factors of impact identified by deans from all four categories of schools are (a) the image of my school's program, (b) the image of nurses and the profession of nursing, (c) women selecting nontraditional roles, and (d) declining enrollments. When asked which single factor deans believed had the most impact on the future of their programs, deans overwhelmingly identified declining enrollments as having the most impact. The enrollment problem is compounded because the number of high school

graduates is declining and will continue to do so for a number of years. Hence, university departments will be competing more actively for resources of all types on campus. The declining amounts of federal and state funding have also been a factor in determining the number of scholarships and traineeships available.

2. Nursing deans report that they are collecting information about each factor from a variety of sources. More deans from private and religious schools report using sources of information than deans from other schools. This would seem to indicate that these deans are searching more diligently than other deans for information that might help them overcome the impact of various factors. The private and religious schools report using the professional organizations -- the American Nurses' Association, the National League for Nursing, and the American Association of Colleges of Nursing -- to a greater degree than other schools.

3. Deans from private and religious schools are more likely to channel information not only "up the organization" to vice presidents but also to faculty, alumni, and other nursing deans. Deans from graduate schools are more likely to keep information to themselves and to send information to assistant deans or department chairs. This may reflect the presence of decentralization in state-supported and schools with a graduate program versus centralization in private and

religious schools of nursing. It also may reflect the fact that schools with graduate programs are better funded and have more resources available.

4. A large number of activities have been developed to counteract the effects of the factors. Deans from private and religious schools report taking part in more actions than other schools. This would seem to indicate that these deans are working harder to reduce the effects of the impacts. This increase in activity might indicate that these schools are feeling more impact from the various factors. However, the statistical analysis in this study did not demonstrate that there was a significant differences in the amount of impact among the categories of schools.

5. It was difficult for deans to identify the most productive action taken for each factor. The inability to identify a specific action as most productive seems to represent the diversity in methods identified to resolve the problems in nursing, as well as the complexity of the issues.

6. Numerous future activities have been identified for each impacting factor, but it will be some time before they can be evaluated and their effects identified.

7. The results of this study indicate that there are no significant differences among the categories of schools in the amount of impact felt from the total environment.

8. The results of this study indicate that there are no significant differences among the categories of schools in the amount of influence over the environmental factors which impact the different types of baccalaureate schools of nursing.

9. The results of this study indicate that there is no correlation between the number of years a dean has been in his/her position and the amount of environmental impact felt or the amount of influence perceived.

Recommendations for Future Research

Additional research needs to be conducted on the information-processing and decision-making strategies of deans. The following areas are suggested for further study.

Further study should be undertaken to determine the most economical and cost effective actions to counteract each of the factors that impact baccalaureate nursing education. This effort is important because it will enable nursing deans to be more efficient with their resources and more competitive with other departments on campus.

Further study should be undertaken to determine the best marketing strategies and the most helpful strategies to improve the image of nursing. This is important because the image of nursing probably is the most important cause of the declining enrollments in baccalaureate schools of nursing.

Additional studies need to be conducted to determine how nursing deans make decisions about the strategies they

employ. Studies of this type would include looking at the process of decision-making and the structuring of the decision itself. Knowing how decisions are made might help deans make decisions that are more sound.

More specific studies need to be undertaken to learn how a dean processes information under different conditions. Knowing how a dean processes information is important because it might differentiate the ways deans function during times of retrenchment from the ways deans function during times of adequate resources. These variables include those of size, internal structure, resources available, and the responsibilities of deans in different types of schools.

Further studies about the image of nursing and the decline in enrollment should have recommendations for policy makers because if enrollment continues to decline, as it is expected, there will be fewer nurses to practice in the health-care delivery system. Having more information about the image of nursing and decline in enrollment is important as decisions are made regarding the federal budget, money for student loans, and other health-care issues.

Additional studies should include comparative studies between nursing deans and other deans with programs having similar problems. Conducting comparative studies could

provide an opportunity to determine differences in leadership styles, decision-making strategies, and information-processing among different types of deans.

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APPENDIX A

Interview Questions

INTERVIEW QUESTIONS

1. What are all the factors you can identify that are currently affecting the future of your school?
2. How specifically is each one affecting the future?
3. Which factor has the most effect on the future of your program? Why do you say this?
4. Which factor(s) do you believe that the dean can most likely do something about? Why do you say this?
5. Which factor(s) are you dealing with now? For each factor given in question 5, the following questions will be asked:
 1. What actions are you taking to deal with these factors?
 2. What are your reasons for thinking these actions need to be taken?
 3. What are you doing to promote these actions?
 4. What kinds of information do you seek about this factor? Any other kinds?
 5. Are some kinds of information more valuable than others? Which ones? Why?
 6. Where do you get the information about this factor? Can you think of different sources? Are some sources of information more valuable than others? Which ones? Why?

Lastly, the interviewer asked for the following information:

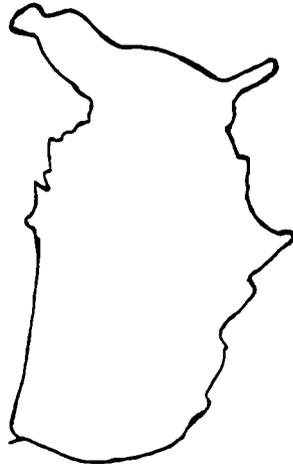
1. Number of full time equivalent students in 1980 and 1985.
2. Number of faculty in 1980 and 1985.
3. Amount of federal funds received in 1980 and 1985.
4. Tuition and costs per year in 1980 and 1985.
5. Existence of a registered nurse program in 1980 and 1985.

APPENDIX B

THE QUESTIONNAIRE

Questionnaire

The Future of
Baccalaureate Schools of Nursing



A NATIONAL STUDY



Directions: The questionnaire is divided into three parts. Please answer all items in the spaces provided in this booklet. The numbers appearing in parentheses are for placing data in computer files and should be disregarded.

I. DEMOGRAPHIC DATA

- (4-5) Number of full-time students in nursing classes (Juniors and seniors) 1980 _____ 1985 _____
- (6-7) Number of baccalaureate graduates 1980 _____ 1985 _____
- (8-9) Total number of full-time faculty 1980 _____ 1985 _____
- (10-11) Approximate amount of federal funds 1980 _____ 1985 _____
- (12-13) Approximate amount of private funds/grants 1980 _____ 1985 _____
- (14-15) Number of years you have been in your current position _____

11. The following factors have been identified as having the potential to affect the future of baccalaureate schools of nursing.

- A. In column A record the extent that you believe this factor affects the future of your school?
- B. In column B record the extent that you believe you can change this factor?

Possible Responses: 1 not at all
2 slightly 3 moderately 4 significantly

Use A Use B
(circle one)(circle one)

(16-17) Declining enrollments 1 2 3 4 1 2 3 4

(18-19) Changing demographics (rise in age of college students, rise in number of minority students) 1 2 3 4 1 2 3 4

	Use A (circle one)	Use B (circle one)
(20-21) Women selecting nontraditional roles	1 2 3 4	1 2 3 4
(22-23) Quality of applicant pool	1 2 3 4	1 2 3 4
(24-25) Declining federal funds	1 2 3 4	1 2 3 4
(26-27) Changing state funds	1 2 3 4	1 2 3 4
(28-29) Allocation of university resources and university support for programs and goals	1 2 3 4	1 2 3 4
(30-31) Rise in tuition, room, board, and fees	1 2 3 4	1 2 3 4
(32-33) Number of scholarships, traineeships available	1 2 3 4	1 2 3 4
(34-35) The curriculum plan at my school	1 2 3 4	1 2 3 4
(36-37) The question of the ability to provide a quality professional education at the undergraduate level	1 2 3 4	1 2 3 4
(38-39) The image of nurses and the profession of nursing	1 2 3 4	1 2 3 4
(40-41) Easy access to associate degree programs	1 2 3 4	1 2 3 4
(42-43) The inability of the discipline to come to a consensus about the entry into practice issue	1 2 3 4	1 2 3 4
(44-45) The inability to attract men into nursing	1 2 3 4	1 2 3 4
(46-47) Changes in the health care delivery system (e.g., DRGs, technology, home health)	1 2 3 4	1 2 3 4
(48-49) Number of faculty who engage in research and scholarly activities	1 2 3 4	1 2 3 4
(50-51) The image of my school's program	1 2 3 4	1 2 3 4

	Use A (circle one)	Use B (circle one)
Additional factors: (52-53)	1 2 3 4	1 2 3 4
(54-55)	1 2 3 4	1 2 3 4
(56-57)	1 2 3 4	1 2 3 4

(If there are others, please list them at the end of the questionnaire.)

Which one of the above factors do you believe has the most effect on your school of nursing?
(58-59)

111. For each of the following factors please identify the ones you are currently addressing or working on at your school by providing the requested information. If you are not working on the factor, please circle the NA (not applicable) at the left of each factor.

(21) NA DECLINING ENROLLMENTS:

- A. What kinds of information have you sought regarding this factor? (Circle all that apply)
- (22) Statistics
 - (23) National trends
 - (24) Number or names applying to university indicating an interest in nursing
 - (25) Names of those taking SATS who indicate an interest in nursing
 - (26) Other (list)
- B. Where has this information come from? (Circle all that apply)
- (27) A.A.C.N.
 - (28) N.L.N.
 - (29) A.N.A.
 - (210) Other professional organizations
 - (211) Educational studies
 - (212) Princeton testing service
 - (213) Admissions office
 - (214) Deans council
 - (215) Alumni
 - (216) State and regional meetings
 - (217) Other (list)
- C. How have you channeled this information? (Circle all ways this information is channeled.)
- (218) Kept for my own use
 - (219) Sent to appropriate vice president
 - (220) Sent to associate/assistant dean(s)
 - (221) Sent to department chair(s)
 - (222) Sent to appropriate committee(s)
 - (223) Sent to other deans on campus or other nursing deans
 - (224) Sent to faculty
 - (225) Shared with alumni
 - (226) Other (list)

D. What actions have been taken as a result of your channeling the information? (Circle all that apply).

- (227) None
- (228) Worked closely with the admissions office or student affairs office
- (229) Called prospective students
- (230) Wrote letters to prospective students
- (231) Had open houses
- (232) Developed videos and/or brochures
- (233) Worked with alumni
- (234) Worked with high schools and/or guidance counselors
- (235) Attended career days/college days
- (236) Recruited from other majors on campus
- (237) Made the program more accessible
- (238) Developed task force
- (239) Other (list)

E. Of the actions selected above, which one do you believe will be the most productive? Please indicate why.

F. Are future actions being planned? (circle)

(240) Yes No

If yes, please list what these actions are:

(241) NA CHANGING DEMOGRAPHICS (rise in age of college students, rise in number of minority students):

A. What kinds of information have you sought regarding this factor? (Circle all that apply)

- (242) Statistics
- (243) National trends
- (244) Numbers or names applying to the university indicating an interest in nursing
- (245) Names of those taking SATS who indicate an interest in nursing
- (246) Number of RNs in the region who desire degree
- (247) Other (list)

B. Where has this information come from? (Circle all that apply)

- (248) A.A.C.N.
- (249) N.L.N.
- (250) A.N.A.
- (251) Other professional organizations
- (252) Educational studies
- (253) Princeton testing service
- (254) Admissions office
- (255) Marketing studies
- (256) Informal meetings with RNs
- (257) Other (list)

C. How have you channeled this information? (Circle all ways this information is channeled.)

- (259) Kept for my own use
- (260) Sent to Vice President of academic affairs (or other appropriate vice president)
- (261) Sent to associate/assistant deans
- (262) Sent to department chairs
- (263) Sent to appropriate committee(s)
- (264) Sent to faculty
- (265) Shared with alumni
- (266) Other (list)

D. What actions have been taken as a result of your channeling the information? (Circle all that apply)

- (267) None
- (268) Worked closely with the admissions office or student affairs office
- (269) Had open houses
- (270) Developed marketing strategies to recruit students
- (271) Developed an RN pool
- (272) Appealed to older and RN students with evening and/or weekend programs
- (273) Offered remedial help
- (274) Developed special task force
- (275) Other (list)

E. Of the actions selected above, which one do you believe will be the most productive? Please indicate why.

F. Are future actions being planned? (circle)

(276) Yes No

If yes, please list what these actions are:

(31) NA WOMEN SELECTING NONTRADITIONAL ROLES:

A. What kinds of information have you sought regarding this factor? (Circle all that apply)

- (32) Statistics
- (33) Number of majors on campus
- (34) National trends
- (35) Other (list)

B. Where has this information come from? (Circle all that apply)

- (36) A.A.C.N.
- (37) N.L.N.
- (38) A.N.A.
- (39) Other professional organizations
- (310) Educational studies
- (311) Admissions office
- (312) University information listing degrees granted
- (313) Other (list)

- C. How have you channeled this information? (Circle all ways this information is channeled.)
- (343) Kept for my own use
 - (344) Sent to appropriate chair(s)
 - (345) Sent to appropriate vice president
 - (346) Sent to associate/assistant dean(s)
 - (347) Sent to department chair(s)
 - (348) Sent to faculty
 - (349) Shared with alumni
 - (350) Other (list)
- D. What actions have been taken as a result of your channeling the information? (Circle all that apply)
- (351) None
 - (352) Increased recruiting efforts
 - (353) Developed marketing techniques
 - (354) Worked with high schools and/or guidance counselors
 - (355) Had open houses
 - (356) Worked with admissions office
 - (357) Developed special task force
 - (358) Other (list)
- E. Of the actions selected above, which one do you believe will be the most productive? Please indicate why.

- C. How have you channeled this information? (Circle all ways this information is channeled.)
- (314) Kept for my own use
 - (315) Sent to appropriate committee(s)
 - (316) Sent to appropriate vice president
 - (317) Sent to appropriate committee(s)
 - (318) Sent to faculty
 - (319) Shared with alumni
 - (320) None
 - (321) Worked closely with the admissions office or student affairs office
 - (322) Had open houses
 - (323) Developed marketing strategies to recruit students
 - (324) Worked with high schools and/or guidance counselors
 - (325) Worked to improve the image of nursing
 - (326) Developed special task force
 - (327) Other (list)
- D. What actions have been taken as a result of your channeling the information? (Circle all that apply)
- (328) None
 - (329) Increased recruiting efforts
 - (330) Developed marketing techniques
 - (331) Worked with high schools and/or guidance counselors
 - (332) Had open houses
 - (333) Developed special task force
 - (334) Other (list)
- E. Of the actions selected above, which one do you believe will be the most productive? Please indicate why.

- F. Are future actions being planned? (circle)
- (328) Yes No
- If yes, please list what these actions are:
- A. What kinds of information have you sought regarding this factor? (Circle all that apply)
- (330) Statistics
 - (331) National trends
 - (332) SAT scores of applicants
 - (333) GPAs of applicants
 - (334) High school or college rank of applicants
 - (335) Other (list)
 - (336) A.A.C.N.
 - (337) N.L.N.
 - (338) A.N.A.
 - (339) Other professional organizations
 - (340) Educational studies
 - (341) Admissions office
 - (342) High school or college records
- G. The quality of our applicant pool has: (circle)
- (360) Declined
 - (361) Increased
 - (362) Remained the same
- (41) NA DECLINING FEDERAL FUNDS:
- A. What kinds of information have you sought regarding this factor? (Circle all that apply)
- (42) Funding trends
 - (43) Amounts available for specific projects
 - (44) Total amounts of Nurse Training Acts
 - (45) Names of legislators to call, write, or visit
 - (46) Other (list)

- F. Are future actions being planned? (circle)
- (328) Yes No
- If yes, please list what these actions are:
- A. What kinds of information have you sought regarding this factor? (Circle all that apply)
- (330) Statistics
 - (331) National trends
 - (332) SAT scores of applicants
 - (333) GPAs of applicants
 - (334) High school or college rank of applicants
 - (335) Other (list)
 - (336) A.A.C.N.
 - (337) N.L.N.
 - (338) A.N.A.
 - (339) Other professional organizations
 - (340) Educational studies
 - (341) Admissions office
 - (342) High school or college records
- G. The quality of our applicant pool has: (circle)
- (360) Declined
 - (361) Increased
 - (362) Remained the same
- (41) NA DECLINING FEDERAL FUNDS:
- A. What kinds of information have you sought regarding this factor? (Circle all that apply)
- (42) Funding trends
 - (43) Amounts available for specific projects
 - (44) Total amounts of Nurse Training Acts
 - (45) Names of legislators to call, write, or visit
 - (46) Other (list)

B. Where has this information come from? (Circle all that apply)

- (47) A.A.C.N.
- (48) N.L.N.
- (49) A.N.A.
- (410) Other professional organizations
- (411) Newspapers
- (412) Professional journals
- (413) Professional meetings
- (414) Legislative liaisons
- (415) Other (list)

C. How have you channeled this information? (Circle all ways this information is channeled.)

- (416) Kept for my own use
- (417) Sent to appropriate committee(s)
- (418) Sent to appropriate vice president
- (419) Sent to associate/assistant dean(s)
- (420) Sent to department chairs
- (421) Sent to appropriate committee(s)
- (422) Shared with alumni
- (423) Shared with other nursing deans
- (424) Other (list)

D. What actions have been taken as a result of your channeling the information? (Circle all that apply)

- (425) None
- (426) Worked closely with professional organizations
- (427) Called/wrote legislators
- (428) Attended congressional meetings/hearings
- (429) Lobbied in person
- (430) Networked with other schools
- (431) Wrote in professional journals
- (432) Developed special task force
- (433) Supplemented funds with fund raising for scholarships
- (434) Other (list)

E. Of the actions selected above, which one do you believe will be the most productive? Please indicate why.

F. Are future actions being planned? (circle)

- (435) Yes
- No

If yes, please list what these actions are:

(436) MA CHANGING STATE FUNDS:

A. What kinds of information have you sought regarding this factor? (Circle all that apply)

- (437) Amounts available for specific projects
- (438) Totals allotted to each school within the state
- (439) Funding trends
- (440) Names of legislators to call, write, or visit
- (441) Other (list)

B. Where has this information come from? (Circle all that apply)

- (442) State nurses' association
- (443) Legislative liaison
- (444) College/university president
- (445) Newspapers
- (446) Professional meetings
- (447) Deans council
- (448) Other (list)

C. How have you channeled this information? (Circle all ways this information is channeled.)

- (449) Kept for my own use
- (450) Sent to appropriate vice president
- (451) Sent to associate/assistant dean(s)
- (452) Sent to department chair(s)
- (453) Sent to appropriate committee(s)
- (454) Sent to faculty
- (455) Shared with alumni
- (456) Shared with other nursing deans
- (457) Shared with state nursing association
- (458) Other (list)

D. What actions have been taken as a result of your channeling the information? (Circle all that apply)

- (459) None
- (460) Worked closely with state nurses organization
- (461) Called, wrote, visited legislators
- (462) Attended congressional hearings/meetings
- (463) Lobbied in person
- (464) Networked with other state-supported schools
- (465) Wrote for state nurses' association journal
- (466) Developed a special task force
- (467) Supplemented funds by fund raising and scholarships
- (468) Other (list)

E. Of the actions selected above, which one do you believe will be the most productive? Please indicate why.

F. Are future actions being planned? (circle)

- (469) Yes
- No

If yes, please list what these actions are:

- G. The amount of our state funding has: (circle)
 (470) Increased (472) Remained the same
 (471) Decreased
- (51) NA ALLOCATION OF UNIVERSITY RESOURCES AND UNIVERSITY SUPPORT FOR PROGRAMS AND GOALS:
- A. What kinds of information have you sought regarding this factor? (Circle all that apply)
- (52) Amount of total university budget
 (53) Amount of money available for salaries, books, equipment, and secretarial support
 (54) Special monies available for projects, research
- (55) Funds available for new programs
 (56) Number of allotted faculty positions
 (57) Amount of decline in enrollments before support is withdrawn
 (58) Other (list)
- B. Where has this information come from? (Circle all that apply)
- (59) Vice president
 (60) Provost
 (61) Budget office
 (62) Other (list)
- C. How have you channeled this information? (Circle all ways this information is channeled.)
- (63) Kept for my own use, I do the budget myself
 (64) Sent to associate/assistant dean(s)
 (65) Sent to department chair(s)
- (66) Sent to appropriate committee(s)
 (67) Sent to faculty
 (68) Shared with alumni
 (69) Other (list)
- D. What actions have been taken as a result of your channeling the information? (Circle all that apply)
- (70) None
 (71) Budget has increased
 (72) Budget has stayed about the same
 (73) Budget has decreased
 (74) Faculty has increased input into determining the budget
- (75) We are well supported on our campus
 (76) Our support is slipping somewhat
 (77) Special task force was developed
 (78) Other (list)
- E. Of the actions selected above, which one do you believe will be the most productive? Please indicate why.

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- F. Are future actions being planned? (circle)
 (529) Yes No
 If yes, please list what these actions are:
- (530) NA RISE IN TUITION, ROOM, BOARD, AND FEES:
- A. What kinds of information have you sought regarding this factor? (Circle all that apply)
- (531) Actual rates each year
 (532) Percent increase each year
 (533) National trends
- (534) Rates from other area schools
 (535) Other (list)
- B. Where has this information come from? (Circle all that apply)
- (537) Admissions office
 (538) Catalogue
 (529) Other deans
 (530) Other (list)
- C. How have you channeled this information? (Circle all ways this information is channeled.)
- (540) Kept for my own use
 (541) Sent to associate/assistant dean(s)
 (542) Sent to department chair(s)
 (543) Sent to faculty
- (544) Sent to appropriate committee(s)
 (545) Shared with alumni
 (546) Other (list)
- D. What actions have been taken as a result of your channeling the information? (Circle all that apply)
- (547) None
 (548) Increased number of scholarships
 (549) Increased amount of private funds available
- (550) Helped students find jobs
 (551) Made program available part time
 (552) Other (list)
- E. Of the actions selected above, which one do you believe will be the most productive? Please indicate why.
- F. Are future actions being planned? (circle)
 (553) Yes No
 If yes, please list what these actions are:

(61) NA NUMBER OF SCHOLARSHIPS AND TRAINEESHIPS AVAILABLE:

- A. What kinds of information have you sought regarding this factor? (Circle all that apply)
- (62) Number and amounts of federal scholarships or traineeships available
 - (63) Number and amounts of state scholarships/traineeships available
 - (64) Economic status of students enrolling
 - (65) Number and amount of local or regional traineeships/scholarships available
 - (66) Amount of private funds available for scholarships or loans
 - (67) Other (list)
- B. Where has this information come from? (Circle all that apply)
- (68) A.A.C.N.
 - (69) N.L.N.
 - (70) A.N.A.
 - (71) Nurse Training Act
 - (72) State sources
 - (73) University sources
 - (74) Financial aid office
 - (75) Other (list)
- C. How have you channeled this information? (Circle all ways this information is channeled.)
- (76) Kept for my own use
 - (77) Sent to faculty
 - (78) Sent to appropriate committee(s)
 - (79) Sent to department chair(s)
 - (80) Shared with alumni
 - (81) Sent to vice president
 - (82) Sent to associate/assistant dean(s)
 - (83) Other (list)
- D. What actions have been taken as a result of your channeling the information? (Circle all that apply)
- (84) None
 - (85) Worked with financial aid office
 - (86) Developed a fund raising plan for our school
 - (87) Worked with the university to raise money for scholarships
 - (88) Solicited private sources for increased monies
 - (89) Other (list)
- E. Of the actions selected above, which one do you believe will be the most productive? Please indicate why.
- F. Are future actions being planned? (circle)
- (90) Yes
 - (91) No
- If yes, please list what these actions are:

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(63) NA THE CURRICULUM PLAN AT MY SCHOOL:

- A. What kinds of information have you sought regarding this factor? (Circle all that apply)
- (632) Ease of transferring credits to your school
 - (633) Availability of courses at community colleges
 - (634) Placement of courses freshman through senior year
 - (635) Opportunities for clinical experiences
 - (636) Accessibility for the older student or RNs
 - (637) Other (list)
- B. Where has this information come from? (Circle all that apply)
- (638) Market studies
 - (639) Alumni sources
 - (640) Registrar's office
 - (641) Curriculum committee
 - (642) Current students
 - (643) Other (list)
- C. How have you channeled this information? (Circle all ways this information is channeled.)
- (644) Appropriate vice president
 - (645) Associate/assistant dean(s)
 - (646) Department chair(s)
 - (647) Faculty
 - (648) Appropriate committee(s)
 - (649) Registrar's office
 - (650) An RN pool of applicants
 - (651) Alumni
 - (652) All potential students
 - (653) Other (list)
- D. What actions have been taken as a result of your channeling the information? (Circle all that apply)
- (654) None
 - (655) Program is offered part time
 - (656) Program is offered in satellite areas
 - (657) An evening program was started
 - (658) A weekend program was started
 - (659) An RN program was started
 - (660) The curriculum has been revised
 - (661) All nursing classes are taken in the 3rd and 4th years
 - (662) Nursing classes are started 2nd year
 - (663) Other (list)
- E. Of the actions selected above, which one do you believe will be the most productive? Please indicate why.
- F. Are future actions being planned? (circle)
- (664) Yes
 - (665) No
- If yes, please list what these actions are:

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(71) NA THE QUESTION OF THE ABILITY TO PROVIDE A QUALITY PROFESSIONAL EDUCATION AT THE UNDERGRADUATE LEVEL:

- A. What kinds of information have you sought regarding this factor? (Circle all that apply)
- (72) Health care trends (74) Concerns of other nursing deans
 (73) Concerns of health care administrators (75) Other (list)
-
- B. Where has this information come from? (Circle all that apply)
- (76) A.A.C.N. (710) Nursing deans
 (77) N.L.N. (711) Other (list)
 (78) A.N.A.
 (79) Nursing service administrators
-
- C. How have you channeled this information? (Circle all ways this information is channeled.)
- (712) Kept for my own use (716) Sent to appropriate committee(s)
 (713) Sent to appropriate vice president (717) Shared with alumni
 (714) Sent to associate assistant dean(s) (718) Other (list)
 (715) Sent to faculty
-
- D. What actions have been taken as a result of your channeling the information? (Circle all that apply)
- (719) None (722) I am considering a proposal for a
 (720) Committee(s) is/are working on proposals for doctoral program
 Nurse Doctorate (ND) (723) Other (list)
 (721) Faculty are talking about the possibility of curriculum change
-
- E. Of the actions selected above, which one do you believe will be the most productive? Please indicate why.
- (724) Yes No
 if yes, please list what these actions are:

(725) NA IMAGE OF NURSES AND THE PROFESSION OF NURSING:

- A. What kinds of information have you sought regarding this factor? (Circle all that apply)
- (726) Reasons students choose baccalaureate nursing (729) feedback from employers on how well graduates perform
 (727) Numbers of students applying to your college (730) Graduates' image of or university interested in nursing (731) Picture of the image of "Picture" of the current image of the nursing profession in the country (732) Other (list)
 (728) image of the nursing profession in the country today
-
- B. Where has this information come from? (Circle all that apply)
- (733) A.A.C.N. (740) Other nursing deans
 (734) N.L.N. (741) Media (TV, radio)
 (735) A.N.A. (742) High school guidance counselors
 (736) Professional journals (743) Campus administrators
 (737) Books (744) Other (list)
 (738) Employers
 (739) Graduates
-
- C. How have you channeled this information? (Circle all ways this information is channeled.)
- (745) Kept for my own use (750) Sent to faculty
 (746) Sent to appropriate vice president (751) Shared with other nursing deans
 (747) Sent to associate/assistant dean(s) (752) Shared with alumni
 (748) Sent to department chair(s) (753) Sent to high school guidance counselors
 (749) Sent to appropriate committee(s) (754) Other (list)
-
- D. What actions have been taken as a result of your channeling the information? (Circle all that apply)
- (755) None (760) Used mass media (TV, newspapers)
 (756) Worked with high school guidance counselors to encourage enrollments in college programs (761) Worked with other nursing deans
 (757) Task force formed to improve our image (762) Faculty are engaging in scholarly activities
 (758) Worked with alumni (763) Developed joint appointments for faculty
 (759) Developed videos and/or brochures (764) Other (list)
-
- E. Of the actions selected above, which one do you believe will be the most productive? Please indicate why.

F. Are future actions being planned? (circle)
 (765) Yes No
 If yes, please list what these actions are:

(81) NA EASY ACCESS TO ASSOCIATE DEGREE PROGRAMS:

A. What kinds of information have you sought regarding this factor? (Circle all that apply)

- (82) Number of students enrolling in associate degree programs nationally or in your area
- (83) Number of associate degree graduates nationally or in your area
- (84) Facts given to high school guidance counselors
- (85) Facts given to students who enroll in associate degree programs
- (86) Other (list)

B. Where has this information come from? (Circle all that apply)

- (87) A.A.C.N.
- (88) N.L.N.
- (89) A.N.A.
- (810) High school guidance counselors
- (811) High school students
- (812) Associate degree graduates
- (813) Administrators of A.D. programs
- (814) Other nursing deans in the state or region
- (815) Other (list)

C. How have you channeled this information? (Circle all ways this information is channeled.)

- (816) Kept for my own use
- (817) Sent to appropriate vice president
- (818) Sent to associate/assistant dean(s) committee(s) chair(s)
- (819) Sent to appropriate committee(s)
- (820) Sent to department chair(s)
- (821) Sent to faculty
- (822) Sent to other nursing deans
- (823) Sent to A.D. administrators
- (824) Sent to high school guidance counselors
- (825) Other (list)

D. What actions have been taken as a result of your channeling the information? (Circle all that apply)

- (826) None
- (827) Worked closely with high school guidance counselors
- (828) Worked to articulate with A.D. programs
- (829) Talked with A.D. administrators
- (830) Worked with state council of deans
- (831) Publicized the advantages of a baccalaureate degree

E. Of the actions selected above, which one do you believe will be the most productive? Please indicate why.

F. Are future actions being planned? (circle)
 (832) Yes No

If yes, please list what these actions are:

(833) NA THE INABILITY OF THE DISCIPLINE TO COME TO A CONSENSUS ABOUT THE ENTRY INTO PRACTICE ISSUE:

A. What kinds of information have you sought regarding this factor? (Circle all that apply)

- (834) Statistics regarding enrollments of the various nursing programs
- (835) Numbers of each type of graduate employed in the area
- (836) No additional information is needed, we have all we need
- (837) Facts from high school guidance counselors
- (838) Other (list)

B. Where has this information come from? (Circle all that apply)

- (839) A.A.C.N.
- (840) N.L.N.
- (841) A.N.A.
- (842) Other nursing deans
- (843) Nursing service administrators
- (844) The consumers/public counselors
- (845) High school guidance counselors
- (846) Other (list)

C. How have you channeled this information? (Circle all ways this information is channeled.)

- (847) Kept for my own use
- (848) Sent to appropriate vice president
- (849) Sent to associate/assistant dean(s)
- (850) Sent to appropriate committee(s)
- (851) Sent to faculty administrators
- (852) Sent to A.D. administrators
- (853) Sent to high school guidance counselors
- (854) Other (list)

D. What actions have been taken as a result of your channeling the information? (Circle all that apply)

- (855) None
(856) Worked more closely with high school guidance counselors
(857) Faculty committee(s) are working on ways to articulate with A.D. programs
(858) I have a plan for articulation with A.D. programs
(859) Media presentations stating the advantages of a baccalaureate nursing education
(860) Other (list)

E. Of the actions selected above, which one do you believe will be the most productive? Please indicate why.

F. Are future actions being planned? (circle)
(861) Yes No

If yes, please list what these actions are:

(91) NA THE INABILITY TO ATTRACT MEN TO OUR PROGRAM:

A. What kinds of information have you sought regarding this factor? (Circle all that apply)

- (92) Number of men in the nursing profession
(93) Type of program men prefer
(94) The image of the male nurse
(95) I have not sought specific information, but I would like to have more men in our program
(96) Other (list)

B. Where has this information come from? (Circle all that apply)

- (97) A.A.C.N.
(98) N.L.N.
(99) A.N.A.
(910) Educational studies
(911) Male nursing students or graduates
(912) Other (list)

C. How have you channeled this information? (Circle all ways this information is channeled.)

- (913) Kept for my own use
(914) Sent to appropriate vice president
(915) Sent to associate/assistant dean(s)
(916) Sent to department chair(s)
(917) Sent to appropriate committee(s)
(918) Sent to faculty
(919) Sent to high school guidance counselors
(920) Other (list)

D. What actions have been taken as a result of your channeling the information? (Circle all that apply)

- (921) None
(922) Worked with high school guidance counselors
(923) Recruited males from other majors
(924) Developed publicity to enhance the image of the male nurse
(925) Other (list)

E. Of the actions selected above, which one do you believe will be the most productive? Please indicate why.

F. Are future actions being planned? (circle)
(926) Yes No

If yes, please list what these actions are:

(927) NA CHANGES IN THE HEALTH CARE DELIVERY SYSTEM
(e.g., DRGs, use of high technology, increase in HMOs and home health):

A. What kinds of information have you sought regarding this factor? (Circle all that apply)

- (928) Availability of clinical facilities
(929) Current needs of employees
(930) Future needs of employers
(931) Trends in health care
(932) Other (list)

B. Where has this information come from? (Circle all that apply)

- (933) A.A.C.N.
(934) N.L.N.
(935) A.N.A.
(936) Nursing service administrators
(937) Clinical faculty
(938) Other (list)

C. How have you channeled this information? (Circle all ways this information is channeled.)

- (939) Kept for my own use
(940) Sent to appropriate vice president
(941) Sent to associate/assistant dean(s)
(942) Sent to department chair(s)
(943) Sent to appropriate committee(s)
(944) Sent to faculty
(945) Sent to nursing service administrators

D. What actions have been taken as a result of your channeling the information? (Circle all that apply)

- (946) None
- (947) New clinical facilities are being sought
- (948) The curriculum is being revised to ensure incorporation of needed skills
- (949) Proposals for graduate programs are being submitted
- (950) Other (list)

E. Of the actions selected above, which one do you believe will be the most productive? Please indicate why.

F. Are future actions being planned? (circle)

- (951) Yes
 - No
- If yes, please list what these actions are:

C. How have you channeled this information? (Circle all ways this information is channeled.)

- (1020) Kept for my own use
- (1021) Sent to appropriate committees
- (1022) Sent to appropriate vice president
- (1023) Sent to associate/assistant deans/research center
- (1024) Sent to appropriate committees
- (1025) Sent to department chair(s)
- (1026) Sent to faculty
- (1027) Other (list)

D. What actions have been taken as a result of your channeling the information? (Circle all that apply)

- (1028) None
- (1029) Faculty are encouraged to work towards a doctorate
- (1030) Faculty have developed a research center
- (1031) Faculty are not hired without a doctoral degree
- (1032) Faculty are hired with the understanding that they must pursue a doctorate
- (1033) Faculty are denied promotion and/or tenure without sufficient evidence of scholarly activities
- (1034) A proposal for an advanced degree has been submitted for our school
- (1035) Other (list)

E. Of the actions selected above, which one do you believe will be the most productive? Please indicate why.

F. Are future actions being planned? (circle)

- (1036) Yes
 - No
- If yes, please list what these actions are:

D. What actions have been taken as a result of your channeling the information? (Circle all that apply)

- (946) None
- (947) New clinical facilities are being sought
- (948) The curriculum is being revised to ensure incorporation of needed skills
- (949) Proposals for graduate programs are being submitted
- (950) Other (list)

E. Of the actions selected above, which one do you believe will be the most productive? Please indicate why.

F. Are future actions being planned? (circle)

- (951) Yes
 - No
- If yes, please list what these actions are:

(101) NA NUMBER OF FACULTY WHO ENGAGE IN RESEARCH AND SCHOLARLY ACTIVITIES:

A. What kinds of information have you sought regarding this factor? (Circle all that apply)

- (102) Number of my faculty with a doctorate
- (103) Number of faculty pursuing a doctorate
- (104) Number of research projects in progress (independent and with other colleagues)
- (105) Number and amount of grants faculty have obtained
- (106) Number of articles faculty have published
- (107) Resources available on campus for research projects
- (108) Additional funding available from private sources
- (109) Opportunities for interdisciplinary research on- or off-campus
- (1010) Other (list)

B. Where has this information come from? (Circle all that apply)

- (1011) A.A.C.N.
- (1012) N.L.N.
- (1013) A.N.A.
- (1014) Other professional organizations
- (1015) Grants office
- (1016) Research center on campus
- (1017) College administrators
- (1018) Other deans on campus
- (1019) Other (list)

(1037) NA THE IMAGE OF MY PROGRAM:

A. What kinds of information have you sought regarding this factor? (Circle all that apply)

- (1038) Reasons students choose baccalaureate nursing
- (1039) Numbers of students applying to your college or university interested in nursing
- (1040) "Picture" of the current image of the nursing profession in the country today
- (1041) Feedback from employers on how well graduates perform
- (1042) Graduates' image of themselves
- (1043) Picture of the image of nursing on campus
- (1044) Other (list)

B. Where has this information come from? (Circle all that apply)

- (1045) A.A.C.N.
- (1046) N.L.N.
- (1047) A.N.A.
- (1048) Professional journals
- (1049) Books
- (1050) Employers
- (1051) Graduates
- (1052) Other nursing deans
- (1053) Media (TV, radio)
- (1054) High school guidance counselors
- (1055) Campus administrators
- (1056) Other (list)

C. How have you channeled this information? (Circle all ways this information is channeled.)

- (1057) Kept for my own use
- (1058) Sent to appropriate vice president
- (1059) Sent to associate/assistant dean(s)
- (1060) Sent to department chair(s)
- (1061) Sent to appropriate committee(s)
- (1062) Sent to faculty
- (1063) Shared with other nursing deans
- (1064) Shared with alumni
- (1065) Sent to high school guidance counselors
- (1066) Other (list)

D. What actions have been taken as a result of your channeling the information? (Circle all that apply)

- (1067) None
- (1068) Worked with high school guidance counselors to encourage enrollment at my school
- (1069) Task force formed to improve our image
- (1070) Worked with alumni
- (1071) Developed videos and/or brochures
- (1072) Used mass media (TV, newspapers)
- (1073) Worked with other nursing deans
- (1074) Faculty are engaging in scholarly activities
- (1075) Developed joint appointments for faculty
- (1076) Other (list)

E. Of the actions selected above, which one do you believe will be the most productive? Please indicate why.

F. Are future actions being planned? (circle) (1077) Yes No

If yes, please list what these actions are:

For the additional factors (listed on page 3), provide the following information: (Please list separately)

A. What kinds of information have you sought regarding this factor? (list)

B. Where has this information come from? (list)

C. How have you channeled this information? (list)

D. What actions have been taken as a result of your channeling the information? (list)

E. Of the actions selected above, which one do you believe will be the most productive? Please indicate why.

F. Are future actions being planned? (Circle)

Yes No

If yes, please list what these actions are:

Is there anything else you would like to tell us? If so please use this space. Also, any other comments you wish to make will be appreciated, either here or in a separate letter.

Your contribution to this effort is greatly appreciated. If you would like a summary of results, print your name and address on the back of the return envelope.

Thank you.

APPENDIX C

The Cover Letter



A LAND-GRANT UNIVERSITY

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

College of Education/AES Division

Blacksburg, Virginia 24061

September 2, 1986

Kathryn Barnett, PhD
Dean, School of Nursing
Auburn University at Montgomery
Hwy. 80 East
Montgomery, Al 36193

Dear Dr. Barnett:

The future of baccalaureate nursing programs is uncertain. Money and enrollments are declining. Deans and faculty are concerned. How are they dealing with this uncertainty? What plans are they making? Are these plans transferable to other colleges and universities? These are the questions we expect to answer through our research?

A questionnaire is attached. It addresses the above questions and asks you to think about the information you are collecting to help you with planning for the future of your baccalaureate program. Would you please take about 30 minutes to complete the questionnaire and return it to us within two weeks?

You were randomly selected to represent baccalaureate nursing programs in your type of college or university; thus, your participation is essential to a complete understanding of the major plans underway to assure that baccalaureate nursing programs continue to thrive. Our collaborative efforts have the potential for making a significant impact on the future of baccalaureate nursing programs throughout the United States.

If you would like a summary of the results, please print your name and address on the back of the return envelope. Please do not put this information on the questionnaire. You may be assured of complete confidentiality. The identification number is for mailing purposes only.

We would be happy to answer any questions you might have. Please write or call (703) 961-5999.

Thank you for your assistance.

Sincerely,

Susan W. Donckers, RN, MSN
Assistant Professor, Nursing
Radford University

David J. Parks
Associate Professor

APPENDIX D

Post Card Follow Up

October 1, 1986

Dear

Last week a questionnaire seeking your input into what information you are collecting to help you plan for the future of your baccalaureate program was mailed to you.

If you have already completed and returned it, please accept our thanks. If not, please do so today. Because the questionnaire was sent to a sample of deans of private, state-supported, religious, or medical-school affiliated programs, it is very important that your response be included to represent opinions of deans from your category. I sincerely appreciate and thank you for taking the time to complete the questionnaire, and I believe it will provide insight into how deans are managing and planning across the country.

If you have questions or need another questionnaire, please call (703) 961-5111 (new working number).
Sincerely,

Susan W. Donckers

APPENDIX E

Follow-Up Letter



A LAND-GRANT UNIVERSITY

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

Blacksburg, Virginia 24061

College of Education/AES Division

October 13, 1986

Loretta C. Ford, EdD
Dean, School of Nursing
University of Rochester
Rochester, NY 14642

Dear Dr. Ford:

Three weeks ago we wrote seeking your input into what information you are collecting to help you plan for the future of your baccalaureate nursing program. As of today, we have not yet received your completed questionnaire.

The new NLN figures show enrollments up at some schools, but down at others. Is enrollment an important factor at your school? What other factors or challenges are facing your particular program? We have undertaken this study to see how nursing deans have confronted some of these challenges and what plans have been made to ensure the future of their programs.

I am writing to you again because your completed questionnaire is very important to the usefulness of this study. You were selected to represent a category of nursing deans of state-supported, religious, private, or medical-school affiliated programs.

In the event that your questionnaire has been misplaced, a replacement is enclosed.

Thank you for your cooperation.

Sincerely,

✓ Susan W. Donckers, RN, MSN
Assistant Professor, Nursing
Radford University

David J. Parks
Associate Professor

APPENDIX F

Letter to Nonrespondents



A LAND-GRANT UNIVERSITY

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

College of Education/AES Division

Blacksburg, Virginia 24061

January 31, 1987

Martha O. Erwin, PhD
Chairman, Department of Nsg.
Murray State University
Murray, KY 42071

Dear Dean Erwin:

On January 7, I mailed you a letter asking for some information for a study I am completing about the future of baccalaureate nursing education. To date I have not received your data.

I would certainly appreciate your taking the time to send me the data, as I am in the data analysis phase of my dissertation. Receiving your data will improve the generalizability of my study.

If the data has already been mailed, thank you very much, if not, please send as soon as possible.

Sincerely,

Susan W. Donckers

Short Questionnaire on Baccalaureate Nursing Programs

Number of full-time students in nursing classes (juniors and seniors):

1980 _____ 1985 _____

Number of graduates: 1980 _____ 1985 _____

Total number of full-time faculty: 1980 _____ 1985 _____

Approximate amount of federal funds: 1980 _____ 1985 _____

Quality of applicant pool has: increased _____ decreased _____
remained the same _____

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