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Selected dimensions of organizational effectiveness as perceived by administrative leaders of nursing programs in colleges and universities

Travis, Lucille Lombardi, Ph.D.

The Ohio State University, 1989

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SELECTED DIMENSIONS OF ORGANIZATIONAL EFFECTIVENESS AS PERCEIVED BY ADMINISTRATIVE LEADERS OF NURSING PROGRAMS IN COLLEGES AND UNIVERSITIES

DISSERTATION

Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy in the Graduate School of The Ohio State University

By

Lucille Lombardi Travis, B.S.N., M.S.

*****

The Ohio State University
1989

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Approved by
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To My Parents

Vincent and Dena Lombardi
Acknowledgments

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Chapter I
Introduction

Background of the Problem

The more than 600 baccalaureate nursing programs in colleges and universities in the United States (ACCN, 1988) annually prepare one-third of the nation's new nurses (Magner, 1989). The nursing profession depends on these programs to prepare women and men for professional practice and for studies at the master's and doctoral levels.

Issues currently challenging higher education include declining enrollment, decreased federal and state funding, increased demand for accountability, large percentages of tenured faculty, and increased competition among colleges and universities. Also, the general public is placing less value on the a college education than in the past (Glenny, 1980; Norris, 1987). Changes in the environment of higher education have led to a demand for accountability by a variety of constituencies. Taxpayers, administrative regulatory agencies, state and federal legislatures, and alumni influence higher education through their control of resources that the institutions need for their survival. When resources are scarce and constituencies are demanding the best return for their money, more attention must be paid to effectiveness (Cameron, 1987). These challenges to higher education require a structured approach for analysis and an evaluation of the environment (Norris, 1987).
Despite their diversity, organizations have common characteristics. They can be defined as "social entities that are goal-directed, deliberately structured activity systems with an identifiable boundary" (Daft, 1986, p. 9). Higher education organizations are challenging subjects for study due to the complexity of their fundamental relationships with external and internal environments and the ambiguity created by these interactions. However, higher education organizations have some important commonalities in structure, technology, and goals, which lend themselves to meaningful inquiry (Thompson, 1967).

Universities are described as professional bureaucracies dominated by decision making based on expertise rather than authority or ideology. Additionally, universities as open systems are dependent upon external resources for survival (Pfeffer & Moore, 1980). Consequently, a unit of the higher education recognizes its relative ability to bring in outside resources that are needed by the institution (Hackman, 1983). Therefore, each unit of the university seeks to demonstrate that its units' success is crucial to the organization's success (Dienemann, 1987). The importance of examining the internal as well as the external environment of an organization as it relates to its ability to be productive and maintain its vitality has been documented over a period of time (Friedlander & Pickle, 1968; Van deVen).

Organizational Effectiveness Considerations

Organizations can be described as large, diverse, fragmented, and able to perform many activities simultaneously. While pursuing multiple goals, they may generate both intended and unintended outcomes. Theoretically, the idea of effectiveness is embedded in theories of organizations (Cameron
& Whetton, 1983). A broad concept, organizational effectiveness implicitly takes into consideration a range of factors both inside and outside the organization, since it is directly related to the degree to which an organization realizes its goals (Etizoni, 1964). Competition and limited resources can impact an organization's ability to achieve its multiple goals. In addition, the idea of organizational effectiveness has generated multiple models to use as frameworks when measuring effectiveness (Cameron & Whetton, 1983).

The various approaches to the measurement of effectiveness focus on different internal and external aspects of the organization. The organization can be described as a set of interrelated elements that needs inputs from the environment, transforms them through internal activities, then processes and discharges outputs as a service or product to the external environment.

While there are various definitions of organizational effectiveness, Cameron's (1978b) identification and study of the dimensions of the issue dealt specifically with their application to colleges and universities at both the institutional and unit level of analysis. It is particularly important to identify what is being measured and how effectiveness is being defined.

Even though "the underlying goal of most research on organizations is to improve their effectiveness" (Cameron, 1981b, p.1) the nature of modern organizations limits the researcher's ability to identify a consensual definition of the concept and a consistent approach to its assessment (Cameron, 1981b). In particular, "the major approaches to organizational effectiveness are altogether inappropriate in certain types of organizations, some definitions of effectiveness may be applicable in some circumstances and not in others..." (Cameron, 1981b, p. 8). Consequently,
... evaluators of organizational effectiveness will never measure all of the relevant aspects of effectiveness of an organization from all the relevant points of view. Therefore, it is imperative that evaluators make explicit certain choices they make when measuring effectiveness. These choices reveal what is being measured and how effectiveness is being defined. In this way, not only will the focal organizations benefit from the evaluation, but research on organizational effectiveness will begin to become more comparable and cumulative [Cameron, 1981b, p. 11-12].

Colleges and universities, having the same or greater needs for effective operation as organizations in the business sector, have benefited from examination as organizations. These studies offered insights into the dynamics of the complex situations within organizations as well as a guide for administrative action (Chaffee, 1987).

Nursing Programs in Higher Education Institutions

The character and mission of colleges and universities are shaped by a number of factors, such as the purposes and circumstances of their founding, the values and demands of supporting constituencies, the vision and commitment of governing officials and faculty, and by the resources available for their support. Historically, nursing programs as professional schools within higher education have often been viewed as being costly to the institution because of low faculty-to-student ratios required for close faculty supervision of students as well as the expensive laboratories and scientific equipment needed for instruction (Lysaught, 1973; Morton, 1983; Torres, 1981). Consequently, a nursing program perceived as not reflecting the character and mission of its parent institution and, further, as an economic burden, will not have a strong influence on decision making
within the university, particularly regarding resource acquisition (Hackman, 1983; Mullane, 1985; Torres, 1981).

Therefore, nursing administrators must identify strategies to alter the perception of nursing as an economic burden and to demonstrate economic sufficiency. In other words, they need to demonstrate their unit's effectiveness in order to secure resources commensurate with their contributions (Dienemann, 1987; Torres, 1981).

Leaders of nursing programs are well aware of the need to examine their organizations both internally and externally; the nursing profession has established criteria for the continued evaluation of its educational programs through voluntary periodic review by a national accrediting body. One of the main goals of accreditation is to encourage excellence through the development of criteria and guidelines for assessing it (Stark & Hagerty, 1989). The National League for Nursing (NLN) is recognized as the official accrediting agency for master's, baccalaureate, associate degree, diploma, and practical nursing programs by the Council on Postsecondary Accreditation (COPA), the United States Office of Education, and by the profession itself (NLN, 1983).

Accreditation criteria developed by the NLN to evaluate baccalaureate and higher degree programs are the basis on which the profession and higher education in general judge nursing programs. These criteria deal with a variety of internal and external elements of the programs: organization and administration, students, faculty, curriculum, and resources. However, closer examination of the specific criteria make it clear that the internal aspects of the nursing program are the main focus of the evaluation process (NLN, 1983).
Recent changes in the environment of nursing programs as units of higher education institutions have had a negative impact on their operation. A major national study (DHHS, Secretary's Commission on Nursing, Final Report, December, 1988) reported that, after a long period of growth in nursing program enrollments, a downward trend has occurred and is expected to continue and worsen. Since females have dominated the profession of nursing, program enrollment in nursing is also negatively affected by the increased interest of young women in professions that historically had been closed to them such as medicine and business. Specifically, the percentage of freshmen women in two-year and four-year institutions interested in nursing careers has dropped from 8.4% in 1983 to 4.0% in 1988 (Astin et al., 1988).

There has also been a decrease in subsidies for nursing education programs. For example, government support of nursing education has declined from a high of $160.6 million in 1973 to $72.3 million in 1987 (DHHS, Secretary's Commission on Nursing, Interim Report, July, 1988). Since funding of nursing programs is expensive for colleges and universities, these programs are being asked to make do with fewer dollars from the parent institutions. Some institutions are even questioning the feasibility of continuing to fund their nursing programs (Morton, 1983).

Additionally, nursing programs within higher education institutions have definite dependencies upon their external environment. This becomes even more apparent when one examines: (a) the findings of two national studies of nursing and nursing education, (b) the American Association of Colleges of Nursing (AACN) recommendations on the essentials of college and university education for nursing, and (c) the

The reports of the aforementioned studies and documents support the fact that professional nursing requires skilled practice consisting of clinical skills and clinical judgment that are development not only from laboratory practice, but also from practice with clients in multiple settings. Nursing programs provide selected clinical learning experiences for students by identifying, selecting, and maintaining relationships with health care service organizations (Hillestad & Hawken, 1987; Fitzpatrick, 1987). These organizations also provide settings for faculty practice that assist the nurse educator to improve communication with students, increase realism in the classroom, maintain the respect of other health professionals, and thus strengthen the service-education relationship (Algase, 1986; Barger & Bridges, 1987; Mauksch, 1980). These organizations also provide opportunities, personnel, and administrative support for nursing research by faculty and students. Since one of the researcher's roles is as an educator of the research process in the clinical setting, students learn by participating and observing the process (McArt, 1987). Consequently, these numerous dependencies on the external environment make evident the need to develop linkages to acquire needed resources.

Need for the Study

The foregoing facts summarize and underscore the need for a descriptive study of the present status of nursing programs' organizational effectiveness. Three concerns that need to be described are: (a) linkages with
the external environment, (b) increased need for resources, and (c) internal success of the nursing program.

First, there has been increasing effort to address the need for interaction of nursing programs with health care institutions and the community. As education and service organizations share resources, ideas, and opportunities, both benefit through the effective and efficient use of people and financial resources. Additional sources of revenue, either monetary or personnel, can also be identified and secured through cooperative efforts (Dienemann, 1987; Fitzpatrick, J., 1987; Keenan and Brown, 1985; Lancaster, 1984).

Threats and opportunities facing nursing during the changes occurring in the health care system provide an additional incentive for the collaboration of nursing education and nursing service—the power and influence to shape nursing's future. Increased collaboration within nursing will also promote greater public understanding and appreciation of the unique role of the profession (Elliott, 1987; O'Koren, 1986; Styles, 1985; Walker, 1985).

Second, the ability to acquire additional resources is imperative for the continued functioning of a viable organization. The decrease in enrollment and educational subsidies places schools of nursing at considerable risk relative to funding (DHHS, Secretary's Commission on Nursing, Interim Report, July, 1988). The Secretary's Commission on Nursing, Final Report (December, 1988) included recommendations about the need for development of nursing resources, specifically the need to minimize financial and nonfinancial barriers to nursing education.
Third, concerns about the quality of programs have been expressed in reports of numerous studies of nursing curriculum, faculty, students, and research productivity (Cudney, 1985; DiMeo & Reed, 1984; Duffy & Halloran, 1986; Fitzpatrick, M., 1987; Forni & Welch, 1987; Kellmer, 1982; Pollock, 1986a; Sullivan, 1985). Most of the studies focus on a particular component of the nursing program directly related to the NLN accreditation criteria rather than upon the organization's activities as a whole.

Between 1956 and 1985 there have been approximately 16 studies of schools of nursing as complex organizations or as organizations in environments. The results of only two studies were published (Miller et al., 1987). The first study dealt with the political participation of nurse administrators. Of the 522 usable responses, 96 were from baccalaureate schools of nursing. One of the recommendations generated revealed the need for nursing education to increase emphasis on preparation of nurses for political involvement (Archer, 1983). The second study examined the perceptions of organizational climate of deans and faculty members in two baccalaureate nursing programs. Although the study found faculty members and nurse administrators differed in their perceptions of the organizational climate, the impact of these differences on organizational effectiveness was not measured (Krampitz & Williams, 1983).

Since 1985, a number of studies examining organizational characteristics of nursing programs have been published. However, the characteristics were linked topics such as faculty satisfaction and organizational climate and deans' leadership behaviors and job satisfaction (Duffy, 1986; Frank, 1986; Kennerly, 1989; Lucas, 1986).
None of the studies focused on organizational effectiveness. Consequently, leaders of nursing programs have had limited systematic or empirical information to use as criteria for judging their endeavors such as identifying needed change and effecting improvement in organizational effectiveness. Thus, an examination of the external and internal aspects of organizational effectiveness that impact on the viability of college and university nursing programs is needed given the prevailing conditions of higher education.

Statement of the Problem

Nursing programs within various types of higher education institutions are all being encouraged to examine their organizational effectiveness. This is due to the increased demand for accountability by higher education constituencies as well as the need to demonstrate their effectiveness in order to secure resources commensurate with their contributions. Although studies of organizational effectiveness of higher education institutions and units within them are occurring, research on nursing programs as units of colleges and universities is missing from the literature. Since perceptions of effectiveness may vary according to category of institution (such as Doctoral or Comprehensive) as well as public and private classification, responses from nursing programs in different institutional categories are necessary to fully describe their organizational effectiveness (Cameron, 1978a, 1978b). This information could be useful for nursing programs to make well-informed decisions to counter the prevailing adverse conditions such as declining enrollment and decreased
federal and state funding and maintain their ability to be productive and survive as an integral part of higher education institutions.

Purpose of the Study

The purpose of this study is to describe organizational effectiveness of college and university nursing programs in terms of three dimensions: (a) ability to acquire resources, (b) system openness and community interaction, and c) organizational health. The perceptions of the organizational effectiveness of deans, directors, or chairpersons of nursing programs were ascertained because as positional leaders they are most likely to have formal responsibility and authority for these organizational functions and have a broad view of their programs (Wandelt, Duffy, & Pollock, 1985).

Research Questions

The following research questions guided the research:

1. Is there a difference among college and university nursing programs on the dimension of ability to acquire resources?

2. Is there a difference among college and university nursing programs on the dimension of system openness and community interaction?

3. Is there a difference among college and university nursing programs on the dimension of organizational health?

4. What is the relationship between the internal and external dimensions of organizational effectiveness of the college and university nursing programs by category of institution?
5. What is the relationship between the internal and external dimensions of organizational effectiveness of college and university nursing programs when grouped by public and private classification?

Significance of the Research

This study was designed as a first effort to describe perceived organizational effectiveness of nursing education programs in higher education. The information obtained provided a basis of comparison between categories of institutions about the selected dimensions of organizational effectiveness. Lastly, the study extended Cameron's research for determining organizational effectiveness from the institutional to the unit level.

Definitions

The following definitions are used in this study.

**Systems openness and community interaction**—the external connections, community service responsiveness, and adaptability of a higher education organization of the type under examination toward its environment (Cameron, 1978b).

**Ability to acquire resources**—the capacity of a higher education organization of the type under examination to acquire resources (human, monetary and capital) from its environment (Cameron, 1978b).

**Organizational health**—the vitality and viability of the internal operations of a higher education organization (Cameron, 1978b).

**Organizational effectiveness**—the ability of an organization to fulfill its mission through the processes of (a) systems openness and community interaction, (b) ability to acquire resources, and (c) organizational health.
Administrative leader—the individual who is formally recognized at or near the top of a higher education organization of the type under examination, and who holds the title of "dean," "chairperson," or "director."

Nursing programs—those colleges, schools, departments, divisions of nursing located in higher education institutions in the United States who offer at least a baccalaureate degree in nursing and who are accredited by the National League for Nursing.

Institutional categories— institutions are grouped into categories on the basis of the level of degree offered and the comprehensiveness of their missions as used by American Association of University Professors.

Limitations of the Study

This study relies exclusively on the perceptions of administrative leaders of nursing programs for its description of the organizational effectiveness of those programs. Data were not obtained to confirm or present an alternative to those perceptions. Second, the focus of the study was on environmental inputs and the internal activities and processes of nursing programs as higher education organizations rather than on outcomes to provide descriptions of organizational effectiveness. Further, the study did not address the effect on organizational effectiveness of variations in governance patterns existing between the individual nursing programs and their university administration, or the relationship between the individual nursing programs and other academic units in the respective institutions.
Organization of the Report

The report of this research is presented in five chapters. Chapter I presents the introduction to and background of the problem, and identifies the research questions. Chapter II encompasses the review of literature relevant to the study, and is divided into four topics: (a) organization theory and higher education institutions, (b) approaches to the study of organizational effectiveness, (c) organizational effectiveness and higher education institutions, and (d) higher education nursing programs and organizational effectiveness. Chapter III describes the methods used, including design, population and sampling, instrumentation, and data analysis. The research findings are presented in Chapter IV. Chapter V includes a discussion of the study. Recommendations for future research conclude the chapter.
Chapter II

Literature Review

This chapter begins with a discussion of organization theory related to higher education institutions. It then addresses approaches to organizational effectiveness in general, and more specifically focuses on organizational effectiveness of higher education institutions. A discussion of nursing programs in higher education institutions and the concept of organizational effectiveness concludes the chapter.

Organizational Theory Applied to Higher Education Institutions

As early as 1938 components of organizations were identified. Barnard (1938) identified elements of an organization as communication, willingness to serve, and a common purpose. Parsons (1951) added that organizations exist in a social sense and identified four functional prerequisites of all organizations: (a) adaptation to the external environment-resources needed to function (financial, personnel, physical, informational); (b) setting goals and/or goal attainment (the product, service, event, or opportunities for the organization's constituents and members); (c) integration-collaboration/coordination (structure for the organization of work and authority as well as the decisions about it); and (d) latency- motivation (climate or cohesiveness of the organization). Parson's view of the organization was an example of examination of the
organization as a linear entity, or identifying key organizational parts and their interrelationships as a way to make sense of unfamiliar territory (Chaffee, 1987).

As difficulty was encountered by researchers and practitioners with making the linear approach useful, a new view of organizations was identified. Katz and Kahn (1966, 1978) contributed the concept of organizations as open systems with patterns of activity occurring in relation to energetic input into the system, the transformation of energies within the system, and the resulting product or energetic output. However, to maintain the organization, the patterned activity requires a continued renewal of the inflow of energy.

Galbraith (1975) defined organizations as information-processing systems, while Perrow (1970) viewed them as rational entities in pursuit of goals. These views of organizations no longer examined organizations as tightly structured but as systems that are open to their surroundings (Chaffee, 1987). Pfeffer and Salancik (1978) defined organizations as coalitions reacting to strategic constituencies. Weick (1979) described organizations as individual need-meeting cooperatives, and Quinn and Rohrbaugh (1983) developed a competing values framework that describes organizations based on their focus, internal versus external and structure-flexible versus controlled. These last examples of views of organizations focused on the interest in people who comprise the organization and those who deal with it.

There are elements common to all organizations, clients, technologies, structure and their relationships with the external environments. However, colleges and universities are unique organizations differing from
industrial organizations, government bureaus, and business firms (Baldridge et al., 1977). However, organizational demands such as accountability placed on higher education as well as business are similar in degree and intent (March, 1968). While examining higher education institutions as organizations, a number of researchers have borrowed from sociology and political science in viewing organization and administration. Each approach has stressed a somewhat different aspect or set of characteristics; this has led to confusing and contradictory results.

Researchers who were concerned with higher education initially used the work of Weber (1947) as a basis for their examination. The basic characteristics of a bureaucracy as developed by Weber (1947) are: (a) fixed division of labor, (b) official hierarchy of authority, (c) regulation of activity such as hiring by impersonality rather than personal relationships, (d) view of employment as a career by organizational participants, (e) a set of rules governed by performance, and (f) separation of the private life of officials is from their organizational rights and responsibilities. Consequently, the rational bureaucratic organizational system is characterized by the use of a structured hierarchy of authority and a set of binding rules and regulations (Thompson, 1967). A number of authors have extended Weber's model of bureaucracy through the examination of the interrelations among the structure, the selection of one structure over another, and the way structure impacted on morale, productivity, and effectiveness (Blau & Scott, 1962; Perrow, 1972; Hall, 1973).

However, when used to examine colleges and universities, the bureaucratic model has some weaknesses: (a) it examines the legitimate, formalized power but little about the informal types of power and influence;
(b) it explains the formal structure but not much about the processes of the organization in action; (c) it does not explain changes in formal structure over time; (d) it explains how policies are carried out efficiently, not the process of how the policy was established; and (e) it ignores the impact of the political issues within the university (Baldridge et al., 1977).

The collegial model or community of scholars is different from the bureaucratic model. The collegial model incorporates three main ideas: (a) decision making by consensus, particularly the academic community; (b) professional authority of faculty members due to the need of professionals to be able to make their own decisions without organizational restraints; and (c) the call for a less impersonal, bureaucratized educational system (Goodman, 1962, Millett, 1962). The main ideas of the collegial model are appealing since colleges and universities would benefit from these ideas. However, there are some drawbacks, including the tendency to describe the ideal rather than the actual situation and the failure to deal with the problem of conflict as a antecedent to consensus.

The political model perspective proposed by Baldridge (1971) arises from conflict theory. This model perceives organizations as political arenas with a diverse set of individuals and interest groups. The following ideas summarize the political perspective: (a) decisions involve the allocation of scarce resources; (b) due to scarce resources, power and conflict are central features of organizational life; (c) coalitions are individuals and interest groups with differing goals and values; (d) organizational goals and decisions are derived from bargaining and negotiation among individuals and groups; and (e) external interest groups exert pressures and formal control over internal governance processes. The political view suggests that
those who exercise power the best are likely to be winners. However, the model also has some drawbacks: (a) limited emphasis to long-term decision making, and (b) limited consideration of the institutional structure and its effect on the shape and channel of the political efforts.

The bureaucratic, collegial and political models offer differing views of organizations. Each addresses a separate set of problems. These are basically internally oriented and were used to analyze governance issues (Peterson, 1985).

However, Cohen and March (1974) developed a theory of organizations reflecting the uniqueness of higher education institutions. They proposed the Organized Anarchy or Garbage Can model, which described organizational characteristics of colleges and universities as: unclear goals, client service, unclear technology, professionalism, and environmental vulnerability. In addition, the idea of higher education organizations as "loosely coupled" was developed by Weick (1976) These two models of organizations reflect the diversity prevalent in higher education. Such "loosely coupled systems" can be more responsive to environmental pressures (Boulding, 1981).

More recent models examine actions in organizations that include issues related to technology, the environment, or the social structure. For example, the resource dependency model focuses on the ability of organizations to acquire and maintain resources (Scott, 1981; Pfeffer & Salancik, 1978; Hannan & Freeman, 1977). This model directs examination of the effects of the environment on the organization, but it tends to deal with short-term institutional responses.
Another model that examines the changes caused by interactions between environment and the organization that influence organizational structure and functioning is the natural selection or population ecology model. This model is concerned with populations of organizations that are alike in some respect rather than individual institutions. It focuses on how the organizations survive based on the fit between the environment and the form of the organization (Aldrich & Pfeffer, 1976; Scott, 1981).

Clearly, there are a variety of models with which to view higher education organizations. Organizational theory and research provide the basic science that undergirds the search for behaviors that make organizations more effective. Organizational studies are multidisciplinary, involving a number of academic and professional fields, such as psychology, sociology, political science, anthropology, history, public administration, and business management (Chaffee, 1987).

In summary, the study of colleges and universities as organizations continues to present difficulties for researchers due to their unique characteristics and the variety of approaches available to use as a framework. However, the difficulties should not preclude continued research designed to increase understanding of higher education institutions as organizations (Peterson, 1985).

**Approaches to the Study of Organizational Effectiveness**

The variability of the approaches to the subject of organizational effectiveness results in problems with definition. When reviewing the literature, authors continue to emphasize the many different points of view surrounding organizational effectiveness (Campbell, 1977; Goodman &
Pennings, 1977; Price, 1968; Steers, 1977; Zammuto, 1982). Many factors that form the basis of the different criteria of organizational effectiveness are derived from theories of organizations and their ideas of effectiveness related to designs, strategies, reward systems, and leadership styles. Consequently, the idea of effectiveness is embedded in the nature of organizations. (Cameron & Whetton, 1983).

Therefore, several problems arise when discussing the study of organizational effectiveness. One problem is the selection of the criteria used in the assessment of organizational effectiveness. Selection deals with the type of criteria indicating effectiveness as well as the sources or originators of the criteria.

A problem of selection of criteria type relates to the aspect of the organization being examined: goal accomplishment, resource acquisition and internal process. Some researchers believe that the defining characteristic of organizational effectiveness is the attainment of goals by the organization (Hall, 1972; Scott, 1977). An alternative to the goal model is the system resource or natural systems approach. This approach replaces attainment of organizational goals as a measure of organizational effectiveness with the ability of the organization to acquire scarce and valued resources from its environment (Hannan & Freeman, 1977; Yuchtman & Seashore, 1967). A third approach uses, as a measure of organizational effectiveness rather than an end state, the internal organizational processes and activities of an organization (Steers, 1977; Pfeffer, 1977).

Another aspect of variability with organizational effectiveness criteria relates to the question of whose viewpoint is used. The topic of who should provide the data for measurement as well as determine the effectiveness
criteria creates varying opinions. Researchers have used a variety of viewpoints from the major decision makers to a broad range of constituencies (Yuchtmann & Seashore, 1967; Pennings & Goodman, 1978; Katz & Kahn, 1978; Steers, 1975).

Consequently, there appear to be three major reasons why organizational effectiveness continues to be an ambiguous and ill-defined concept Cameron (1981). First, definitions of organizations vary from being considered rational entities (Perrow, 1970), to cybernetic systems (Scott, 1981), to coalitions of strategic constituencies (Pfeffer & Salancik, 1978), to meaning producing systems (Weick, 1979). Therefore, the definition of what is an effective organization is as varied as the definition of an organization.

Second, few studies have used common criteria for indicating effectiveness; therefore, comparison of studies of effectiveness is often impossible (Campbell, 1977; Steers, 1977). Cameron (1978a) examined 21 empirical studies of organizational effectiveness on the basis of type of effectiveness criteria used and their sources. This study reported that no overlap occurred in the criteria of effectiveness in approximately 80 percent of the studies. The sources and types of effectiveness criteria selected by the researchers were not comparable with others' empirical investigations. Therefore, research on organizational effectiveness is often described by organizational researchers as fragmented since there is little continuity between criteria.

Last, the fact that organizations are complex entities leads to definitional problems about organizational effectiveness. The idea of organizational effectiveness is inherently subjective grounded in the values and preferences of those who use and evaluate it (Cameron, 1981b), and is a construct that cannot be observed (Kerlinger, 1973).
Although there is a lack of consensus regarding both the definition and the assessment of organizational effectiveness, evaluators have used a variety of approaches, focusing on different parts of the organization used by evaluators to define and assess it. Organizations gather resources from the environment, transform the resources through internal activities and processes, yielding products and/or services to be used in the environment.

The system resource approach examines the resources or inputs of the organization. Organizations viewed as effective from this approach must be successful in acquiring scarce and valued resource inputs from the environment and in maintaining the organizational system. Since this approach is based on open-systems theory, emphasis is on the interchange between an organization and its environment (Yuchtman & Seashore, 1967). Using a narrow perspective, the criterion of effectiveness would be the level of resources acquired from the environment. From a broader perspective, the criterion of effectiveness could involve bargaining position, ability of the system to use resources, maintenance of internal day-to-day activities, and the ability of an organization to respond to changes in the environment (Cunningham, 1978). Additionally, even though it examines a narrow perspective of organizations, this approach provides a basis of comparison between them by evaluating their ability to acquire resources. Consequently, this approach is useful when mission and outputs of organizations are different (Cameron & Bilimoria, 1985).

The internal process approach examines internal organizational health and efficiency. Organizations viewed as effective from this approach have a smooth, well-oiled internal process. This approach is closely related to the human relations approach to organizations (Argyris, 1964; Bennis,
One indicator of effectiveness can be assessed by interviewing organizational employees relative to team spirit, group loyalty, reward system, horizontal and vertical communication, confidence and trust (Cunningham, 1977). Another indicator of effectiveness with this approach is the measure of economic efficiency through the use of ratios related to inputs, transformation, and outputs (Evan, 1976). Use of this approach can provide a basis of comparison between organizations when outputs are not the same or are not identifiable. However, examination of the internal processes of an organization provides a limited view of organizational effectiveness since outputs and relationships with the external environment are not evaluated (Cunningham, 1977).

The next approach to the study of organizational effectiveness is the goal approach, which states that the organization is effective to the extent that it accomplishes its stated goals (Bluedorn, 1980; Campbell, 1977; Price, 1972; Scott, 1977). Evaluating progress toward operative rather than official goals has been more productive. Activities the organization is actually performing are reflected in the operative goals. Problems arise with identifying operative goals and measuring performance in an arena of multiple outputs, subjective indicators, and organizational environment and context (Hall & Clark, 1980). While use of this approach is a logical way to assess organizational effectiveness; the actual measurement of effectiveness is complicated by the problem of multiple goals and outcomes. Consequently, effectiveness cannot be evaluated by a single indicator. This model is the one of choice when goals are clear, time-bound, and measurable (Cameron & Bilimoria, 1985).
These three approaches—system resource, internal process, goal—to organizational effectiveness all have advantages as well as limitations. Since each approach focuses on specific aspects of an organization, there is no one criterion of effectiveness, nor should there be. However, recently a number of integrative approaches have been developed. Basic to the development of these approaches is the awareness that organizations do many things and have many outcomes, no single criterion of effectiveness is always appropriate.

One example of an integrative approach to the study of organizational effectiveness is the Strategic-Constituencies approach, which places as its primary concern the satisfaction of the demands of the various constituencies. Effectiveness of an organization can be assessed by determining how well the organization's performance satisfies each group, since each constituency has a different interest in the organization, thus a different criterion of effectiveness (Connolly, Cohen & Deutsch, 1980; Pfeffer & Salanick, 1978; Zammuto, 1982). This model is useful when constituencies have powerful influence on the organization and it must respond to their demands (Cameron & Bilimoria, 1985). Additionally, the strength of this approach is that it views effectiveness as a complex, multidimensional concept that has no single measure (Cameron, 1984; Kanter & Brinkerhoff, 1981).

Another example of an integrative approach to the study of organizational effectiveness is the competing values approach, which defines organizational effectiveness in terms of the organizational focus and structure. These dimensions of structure and focus are combined to provide four models of organizational effectiveness, each reflecting a different
effectiveness value emphasis relative to constituent preferences. The following are the four models of effectiveness values:

1. Open systems model which is similar to the system resource approach expresses a combination of external focus and flexible structure.

2. Rational goal model which is similar to the goal approach reflects the values of structural control and external focus.

3. Internal process model reflects the values of internal focus and structural control.

4. Human relations model is concerned with the development of human resources through the values of internal focus and flexible structure.

The four models represent opposing organizational values, therefore, evaluation of organizational effectiveness will reflect those values that organizations wish to pursue. Therefore, this approach helps integrate diverse ideas of effectiveness (Quinn & Cameron, 1983; Quinn & Rohrbaugh, 1981, 1983). It is also useful when the organization is unclear about its own emphases, or changes in criteria over time are of interest (Cameron & Bilimoria, 1985).

There is no single approach to the evaluation of organizational effectiveness that is appropriate in all circumstances or for all organizational types. As Cameron (1981b) suggests, the major approaches to organizational effectiveness are inappropriate in certain types of organizations, and some definitions of effectiveness are applicable in some circumstances and not in others.
Additionally, researchers examining organizational effectiveness will not be able to measure all aspects of organizational effectiveness from all points of view. Therefore, they need to make critical choices about what is being measured and how effectiveness is being defined relative to the organization being examined so that those involved will understand more exactly the meaning of the research.

Organizational Effectiveness and Higher Education Institutions

Higher education institutions as organizations have unique characteristics that differentiate them from industrial organizations, government bureaus, and business firms. Some of these distinguishing characteristics are: (a) vague ambiguous goals that are highly contested, (b) service to clients rather than production of a clearly defined product, (c) problematic technologies due to the need to serve a variety of clients, (d) employment of fragmented professional staffs that demand a large measure of control over institutional decisions, and (e) increasing vulnerability to their environment (Baldrige & Riley, 1977).

These differences create considerable difficulty when attempting to apply one of the recognized approaches to evaluating organizational effectiveness (Cameron, 1978a). It is difficult to apply the previously discussed models to higher education organizations, particularly if one subscribes to the idea that they can be described as loosely coupled systems or as organized anarchies. For example, the goal model is useful with specific, measurable goals, but higher education organizations as loosely coupled systems have vague goals.
Additionally, there are difficulties in the selection and use of criteria by which to determine the effectiveness in institutions of higher education. First, it is difficult to specify concrete, measurable goals and outcomes. A number of authors suggest that without meaningful and measurable objectives, it is difficult or impossible to assess the effectiveness of higher education (Warner & Haven, 1968; Chickering, 1971; Hayman & Stenner, 1971).

Second, the academic community in higher education institutions appears to view evaluation of institutional effectiveness with skepticism and defensiveness and possible threat to academic freedom. They also view their institutions as unique and therefore not comparable to other institutions.

Third, due to the increasing financial concerns of colleges and universities, the tendency is to perform research that examines their efficiency rather than their effectiveness. The measurement of efficiency in higher education has been evaluated by indicators such as cost per student, student-faculty ratio, and cost per square foot. Although institutions must demonstrate efficiency, i.e., generating little waste while using resources, they also have to demonstrate effective use of resources (Cameron, 1978a, 1984a). Even an early study of higher education identified that efficiency and effectiveness could not be assessed by the same criteria (Fincher, 1972).

Last, the rules, goals, and choices operating within these organizations are ambiguous, changing, and often not recognized; therefore, statements about effectiveness of organized anarchies or loosely coupled systems are difficult to apply (Cohen & March, 1974; Weick, 1976).
In spite of difficulties in assessing the effectiveness of higher education organizations, this assessment has become critical to the health of these organizations, and is increasingly being mandated by those in the environment such as legislators, funding agencies, and alumni. Indeed, an approach to studying organizational effectiveness in organizations that vary on a continuum from loosely coupled to tightly coupled lies in identifying a core group of effectiveness criteria that are relevant to organizational members, applicable across subunits, and comparable across institutions (Cameron, 1978).

Obviously, there have been many attempts to examine various dimensions of higher education organizations as well as dimensions of nursing programs in higher education. The construct of organizational effectiveness has been applied to different levels of analysis related to colleges and universities. Organizational effectiveness of the total higher education institution has been emphasized through the work of Cameron (1978a and 1978b). Assessing strategy and effectiveness of higher education systems has been addressed by Chaffee (1985), who suggested that organizations and systems can use similar strategy to become more effective. In addition, higher education systems such as that in Colorado need to address three kinds of effectiveness: goal achievement, resource acquisition, and constituent satisfaction since the system must address the current issues facing higher education (Chaffee, 1985). The examination of another level of analysis of organizational effectiveness occurred thorough the assessment of continuing education units in higher education institutions, the organizational health dimension of 137 continuing education units was described by Ciccone (1986).
Cameron's (1978a, 1978b) work on organizational effectiveness in institutions of higher education provides the framework for this study. As a result of a four-year study of 47 institutions of higher education, nine effectiveness dimensions of higher education institutions were identified. Initially a set of categories were identified on an a priori basis from the literature and from interviews with top administrators in a group of colleges and universities in the northeast. A second survey of objective indicators of effective organizational practices and outcomes was answered by the participants of the first survey. After evaluating the results, a third survey was developed to provide an evaluative framework with which to assess organizational effectiveness.

The following is a list of nine a priori categories of variables included in Cameron's original survey instrument (1978b):

1. Student Educational Satisfaction—the degree of satisfaction of students with their educational experiences at the institution;
2. Student Academic Development—the extent of academic attainment, growth, and progress of students at the institution;
3. Student Career Development—the extent of occupational development of students, and the emphasis on career development provided by the institution;
4. Student Personal Development—in nonacademic, noncareer oriented areas; e.g., social, emotional, cultural, and the emphasis on personal development and opportunities provided by the institution for personal development;
5. *Faculty and Administrator Employment Satisfaction*-satisfaction of faculty members and administrators with their jobs and employment at the institution;

6. *Professional Development and Quality of the Faculty*-the extent of professional attainment and development of the faculty, and the amount of stimulation toward professional development provided by the institution;

7. *System Openness and Community Interaction*-the emphasis placed on interaction with, adaptation to, and service in the external environment;

8. *Ability to Acquire Resources*-the ability of the institution to acquire resources from the external environment, such as good students and faculty, financial support, etc; and

9. *Organizational Health*-the benevolence, vitality, and viability in the internal processes and practices at the institution.

Each of the nine effectiveness dimensions was evaluated individually for reliability and validity. Previously, field tests of the items in the questionnaire yielded the following information relative to the individual items as well as for each dimension. All items in the effectiveness dimensions demonstrated variance (<1.0). Inter-item correlations for each dimension were (p < .001 in every case), and the computation of the alpha coefficients for each dimension resulted in internal consistency reliabilities ranging between .829 and .989.

Additionally, statistical tests for discriminant validity were performed for the nine dimensions. Average inter-item correlations within each dimension confirmed that each item correlated higher inside its own scale
than with items outside. An inter-dimensions correlation matrix identified correlations that refer to the nine dimensions as distinct constructs. Therefore, the nine organizational effectiveness dimensions are psychometrically sound and some confidence can be placed in the nine constructs. External validity and construct validity of the effectiveness dimensions were determined. Multitrait-multimethod matrix as described by Campbell and Fisk (1959) was used as a technique for assessing the convergent and discriminant validity of constructs. The coefficients indicated that the reliability of each of the effectiveness dimensions was very high.

In summary, the discussion relative to the development of a survey with internal and external validity supports the fact that the nine effectiveness dimensions have high internal consistency reliability and that the convergent and discriminant validity are satisfactory. The construct validity of the effectiveness dimensions is supported by the results from the multi-group-multiscale matrix.

These nine identified dimensions were clustered into domains of organizational effectiveness: (a) external adaptation-included student career development and system openness and community interaction; (b) morale-included student education satisfaction, faculty and administrator employment satisfaction, and organizational health; (c) academic-oriented-student academic development, professional development and quality of the faculty, and ability to acquire resources; and (d) extracurricular-included student personal development (Cameron, 1978a, 1978b).

The results of the study indicated that no institution operated effectively on all effectiveness dimensions. That is, some institutions were more effective in the external dimensions than in the internal dimensions.
Effectiveness profiles of the institutions studied were determined from the responses to the questionnaire items. The profiles from the different institutions identified the dimensions in which institutions scored above or below average.

Additionally, the study indicated that "no single profile is necessarily better than any other, since strategic constituencies, environmental domain, contextual factors, etc., help determine what combination is most appropriate for the institution" (Cameron, 1978a, p.623). In essence, institutions generate unique patterns of organizational effectiveness across certain domains, and an institution's effectiveness profile may be associated with a different set of institutional characteristics. Each institution has characteristics that determine the particular dimensions at which they excel.

A number of implications from Cameron's study have relevance to this study of nursing programs in higher education institutions. First, the results indicated that institutions characterized as effective in the external dimensions are not as effective in the internal dimensions and vice versa. Second, an institution characterized as successful in one effectiveness dimension may have different organizational characteristics than an institution characterized as successful in another effectiveness dimension. Third, the distinctive organizational characteristics of higher education institutions (such as type of programs offered, ranking of the institution, and classification of the institution) generate different effectiveness profiles. These implications about the differences in the effectiveness dimensions of higher education institutions may be one reason that results of previous examinations of organizational effectiveness in higher education organizations have varied. Additionally, Cameron suggests that further
research focus on the specific dimensions of effectiveness rather than on overall assessments of the organization.

Nursing Programs in Higher Education Institutions and Organizational Effectiveness

Studies about the organizational effectiveness of nursing programs are conspicuously absent from the literature. Miller et al. (1987), using a framework adapted from a research model developed by the University Council for Educational Administration, identified studies related to research in nursing education administration occurring over the past 30 years. The studies were categorized into six domains of inquiry. The two domains of particular interest to this researcher were (a) schools of nursing as complex organizations and (b) schools of nursing as organizations in environments. No reference to organizational effectiveness was made in any of the domain descriptions. Of the 84 studies identified, 15 were published. Two were published about schools of nursing as complex organizations and schools of nursing as organizations in environments. Two of the published studies were about schools of nursing as complex organizations and as organizations in environments. Sixteen studies were completed within the two domains of interest; of the 16, 12 were completed during the last 10 years. It is apparent that, due to the limited communication of research findings, the development of a knowledge base or generation of theories on the topic of organizational behavior is slow and difficult.

Both internal and external aspects of nursing programs in higher education institutions have been reviewed in previous sections of this chapter. The following discussion examines the nursing literature related to
the three particular areas of organizational effectiveness addressed by this study: resources, system interaction, and organizational health.

**Resources.** A number of studies examined financial aspects of nursing programs in higher education institutions, and their findings emphasized the importance of resources to these programs (Dienemann, 1987; Gunne, 1985; Kummer et al., 1987). A study commissioned in the early 1980's by Division of Nursing, Bureau of Health Professions, Health Resources and Services Administration was to "provide a national perspective on the full institutional costs of generic baccalaureate nursing education programs through the development of a model" (Kummer et al., 1987, p. 117). The major component of the study was identifying the financial resources needed by NLN-accredited generic baccalaureate nursing programs.

Another study examined the budgetary factors and overall fiscal status of 210 NLN-accredited nursing education programs in United States (Gunne, 1985). Information from this study indicated that budgeting was becoming more difficult, funding was predominantly from state sources, and access to contingency fund was available. The major focus of the study was to examine budgetary factors and related features. (Gunne, 1985).

An additional study examined the rewards and resources of nursing programs as compared to other selected programs in university settings (Dienemann, 1987). The sample included 88 NLN-accredited master's programs in operation for at least 10 years. This study compared the intraorganizational powers of the selected programs. Using the basis that power, or lack of it, is often a deciding factor when resolving conflicts over resources or policies, nursing's rewards and resources were not
commensurate with their contribution to the university (Dienemann, 1987).

**System interaction.** There are numerous benefits of linkages between nursing programs and health care providers in their external environment. This topic has been the subject of a number of studies (Fitzpatrick, 1987; Lancaster, 1984; Walker, 1985).

Through collaborative efforts, increased visibility and esteem can be reflected in both settings, leader to recruitment of students as well as high caliber staff. There are more opportunities for both nursing education and nursing service personnel to keep current and increase their knowledge. Additionally, opportunities for funding of research and other projects to increase involvement of nursing students and nursing staff in collaborative efforts are enhanced. (Fitzpatrick, 1987; Lancaster, 1984; Walker, 1985).

A number of major commissions established to examine the nursing profession have identified the importance and benefits to the nursing profession of collaboration between nursing education and nursing service (National Commission on Nursing, 1981; National Institutes of Health Committee on Nursing and Nursing Education, 1983; DHHS Secretary's Commission on Nursing, Final Report, 1988).

A case study of the collaboration between a consortium of five hospital corporations and a baccalaureate nursing program found that such a linkage yielded a multilevel exchange of ideas, a broader forum for problem solving and a sense of purpose between faculty and agency representatives (Kleine-Kracht, 1987). Another study explored the costs and benefits of nursing student education to clinical agencies. Using information from a relatively small sample, the study determined that the tangible resources contributed by the nursing programs has greater
monetary value than those contributed by the clinical facilities, and that the exchange of intangible resources between the nursing programs and the clinical facilities was equitable (Hillestad & Hawken, 1987).

Organizational Health. The last aspect to be discussed is the internal environment of nursing programs in higher education institutions. The basic topics, structure and governance, policies, faculty and curriculum excluding materia resources since it was discussed previously, included in NLN accreditation criteria topics provide a framework for the review of literature related to internal aspects of nursing programs. Studies about the structure and governance, policies, faculty and curriculum are included. Studies related to material resources were discussed under need for resources, pp. 7-11.

A number of studies reported relate to structure and governance issues. A study of 170 nursing deans found a significant relationship between deans' leadership behavior-such as initiating structure-and institutional variables of control, educational task, and size (Lucas, 1986). In support of this finding, another study of 26 baccalaureate nursing programs in private colleges found that leadership behaviors of consideration and initiating structure were positively related to nurse faculty job satisfaction (Kennery, 1989). A third study of 251 nursing deans showed that decentralization and some degree of complexity and formalization were related to job satisfaction (Frank, 1986). Last, a study of organizational climate and job satisfaction in 15 accredited baccalaureate schools of nursing found that the dean's behavior influences perceptions of organizational climate and job satisfaction among faculty (Donohue, 1986).
Literature on policy and faculty are covered jointly in a number of studies. Due to the need for nursing faculty to fulfill traditional university standards, the issue of faculty productivity and workload was examined. A review of various approaches available to examine and quantify faculty workload was completed. The purpose was to provide information to faculty and administrators so that more informed decisions regarding workload measures could be made (Kirkpatrick, Rose & Thiele 1987). One study reported on the status and requirements in the areas of teaching, research and scholarly activities needed to achieve tenure and/or promotion at 40 programs. Although the findings demonstrated that the nursing faculty were more integrated into the academic community than previously noted, it also revealed a rapid rise in expectations of faculty while tangible changes have been gradual. In addition, many programs need more doctorally prepared faculty as well as increased research activities (Kruger & Washburn, 1987).

A study of successful faculty development programs at three institutions found that faculty productivity was enhanced when a faculty development program is in place. Additionally, the study identified approaches to faculty development within a limited budget (Fontes, Schulte & Brye, 1987). This study supplemented the information from an earlier article that reported the benefits of faculty evaluation as: (a) recognition and reward, and (b) personal growth and development (Cudney, 1985). Last, a study examined a number of variables and how they related to university nursing faculty publication productivity. Information was received from 261 tenure track nurse faculty teaching in seven nursing programs located in public research universities I. Of particular interest was the finding that the
more time a faculty member spent in clinical instruction, the less was their publication productivity.

The literature abounds with articles related to curriculum issues. A few examples of articles about baccalaureate curriculum were selected for inclusion in this discussion. One article by Woolley (1986) discussed defining the product of baccalaureate education. A predominate theme recounts the continuing concern of nursing education with excellence of the graduate, while a companion article discusses the redefinition of the baccalaureate degree for nurses. The issue of liberal versus professional education is discussed (Coleman, 1986). Another article discusses models of basic nursing education (Reed, 1984).

Summary

The demand for organizational effectiveness placed on higher education institutions is similar in degree and intent to other organizations, even though colleges and universities as organizations have some unique characteristics. Although the uniqueness of colleges and universities and the variety of available research approaches makes research on organizational effectiveness difficult, the issues challenging the institutions makes it important to increase understanding.

The different approaches to the study of organizational effectiveness are distinguished, in part, by the way organizational effectiveness is defined and the focus on a particular part of the organization such as environment, internal activities and processes or outcomes and/or services. Consequently, there is no single approach to the evaluation of organizational effectiveness that is appropriate in all circumstances or for all
organizational types. The work by Cameron (1978a, 1978b) on organizational effectiveness in institutions of higher education provides the framework for this study.

The current issues challenging higher education institutions impact negatively on the vitality and capability of nursing programs in those institutions to survive. Specifically, the description of the organizational effectiveness of nursing programs with respect to three dimensions—resources, system interaction, and organizational health—is needed.
Chapter III

Methods

Introduction

The purpose of this study is to describe perceptions of administrative leaders in college and university nursing programs on three dimensions of organizational effectiveness: ability to acquire resources, system openness and community interaction, and organizational health. This chapter includes a description of the research design, the population and sample, discussion of the questionnaire, and the data analysis plan.

Research Design

The survey research method was selected as appropriate for this study since survey research is descriptive, explanatory, and exploratory (Babbie, 1973). The total design method with its techniques for maximizing the response rate on mail surveys as described by Dillman (1978) was used for this study. The method total design consists of two parts: (a) to identify each aspect of the survey process that may affect the quality or quantity of response, such as survey booklet format and printing, ordering of questions, development of cover letter, and mailing the questionnaire; and (b) to organize the survey efforts so the design is carried out in complete detail. This approach to mail surveys was considered especially appropriate for
surveying deans of nursing programs because Baker (1985) used a modified version of the total design method with deans of colleges of nursing and nurse middle managers in academic nursing and obtained response rates of 94% and 88% respectively on a lengthy questionnaire. Cameron & Bilimoria (1985) have identified a series of questions to be used as a guide in the design of a specific study of effectiveness in institutions of higher education. The answers to these questions help give the concept of organizational effectiveness some meaning as well as improve the effectiveness evaluation. The questions are: (a) whose perspective, or which constituency's point of view, is being considered?, (b) what domain of activity is being focused on?, (c) what level of analysis is being used?, (d) what referent is being employed?, (e) what time frame is being employed?, and (f) what type of data are to be used? The design of this study can be more clearly understood by presenting the researcher's answers to these questions:

1. For the purposes of this study, effectiveness is being judged from the perspective of the administrative leader rather than faculty, external constituents, students or others.

2. The domain of activity being considered consists of three dimensions of the external and internal aspects of the organization: (a) the ability to acquire resources, (b) the organization's system openness and community interaction, ability to acquire resources, and organizational health.

3. The level of analysis is the unit-nursing, rather than the total institutional or individuals.
4. The purpose of the assessment is descriptive rather than predictive.

5. The time frame being employed is short term, ("snap shot"), or one point in time, rather than a medium-range trend analysis or long-term population analysis.

6. The type of organizational data gathered is subjective rather than objective.

7. The basis for decisions about organizational effectiveness are organizational activities and attributes rather than teaching, research or service outcomes of the institutions.

8. The baccalaureate nursing education programs examined were National League for Nursing Accredited and based in an institution of higher education—a college or university.

Population and Sample

The population for the study was the total census of administration leaders of NLN accredited baccalaureate schools of nursing in the United States (NLN, 1988). Although survey research generally examines a sample from the population, this researcher chose to use the total population in order to enhance the ability to draw inferences and generalize the results (Kenny, 1985), diminish sampling error (Schuman & Kalton, 1985), and increase the level of confidence (McCracken, 1987). Further, the plan to use confirmatory data analysis required the responses from 200 cases, which is 50 percent of the total population (Long, 1983; Tukey, 1977).

Using the most recent National League for Nursing list of accredited baccalaureate programs in nursing (NLN, 1988), 401 institutions in 50 states
plus the District of Columbia were identified as conferring at least a bachelor's degree in nursing. This list provided names and addresses of the schools, departments, or colleges of nursing and the names of the administrative leaders of those units.

**Questionnaire**

The researcher adapted a survey instrument on organizational effectiveness that Cameron (1978b) developed and tested with a sample from 41 colleges and universities. In his study the reliability and validity was determined for each of the nine effectiveness dimensions. Information is in Chapter Two regarding the development of the survey and its internal and external validity. This researcher's adaptation of the questionnaire included only those questions related to the three dimensions of ability to acquire resources, system openness and community interaction, and organizational health. As little information is available about the use of only some of the questions from a previously developed and tested survey instrument, this researcher interviewed a number of polymetric experts (K. Carr, personal communication, January, 1989; A. Clausen, personal communication, January, 1989; E. VanTilburg, personal communication, January, 1989). The experts agreed that questions could be used from a survey instrument if they had been individually evaluated for validity and reliability. In addition, the fact that each of the dimensions in themselves had been examined by Cameron (1978b) for reliability and validity supported the view that they could be used without the questions from all the dimensions.

Each section of the original survey contained questions from various dimensions; therefore, this researcher had to ascertain which questions re-
lated to the three selected dimensions. From Cameron's (1978b) study, the dimension on ability to acquire resources included 12 questions about community service of employees, professional activities outside the institution, emphasis on community relations, community programs sponsored, and adaptiveness to environment. The system openness and community interaction dimension included 12 questions about national reputation of faculty, drawing power of the unit for local students, national students, faculty, and financial resources, and ability to acquire resources. The organizational health dimension included 25 questions specific items address: relationships, communication process, administrative impact, recognition and rewards, long-term planning and goal setting, and intellectual orientation. The selection was confirmed by cross checking with the description of the dimensions and their item description as reported by Cameron (1978b, 1981a). The final instrument used in this study contained 65 items. In addition, six items were included to collect demographic and personal data (see Appendix A). The questions in the survey instrument were close-ended questions with ordered answer choices. A seven-point likert scale represented the choice offered for each particular question, 1 indicating the greatest amount of agreement with a statement with 7 indicating the least amount of agreement with a statement. The instrument itself was reviewed by Carr for specific problems related to formatting, flow of questions, and contingency questions as well as other wording issues that might affect the quality or quantity of response. No problems were identified relative to the instrument construction.

To identify any construction defects, the instrument with the questions related to the three dimensions was reviewed by a group of
professional nurse colleagues. They also evaluated the questionnaire in terms of the researchers objectives. In addition, those with knowledge of the survey topic were asked to evaluate the questionnaire.

After the questions for the instrument were reviewed, final decisions were made about specific design considerations including respondent instruction, length, visual appearance, overall organization, readability, and design of the front cover. Following suggestions by Dillman (1978), the questionnaire was printed as a seven-inch by eight-and-one-half inch booklet on white paper. The front page included the cover design and this researcher's address in the event that the preaddressed return envelope was misplaced.

Data Collection Procedures

A personalized cover letter was developed (see Appendix B). Respondents were assured that responses would be confidential and that information collected would be reported by institutional categories. In addition, the researcher promised to provide a written summary of the study to the respondents after the data were compiled and analyzed. Mailing labels were prepared for the population of 401. Business envelopes affixed with first-class postage matching the academic department cover letter stationary were used to send the questionnaire, cover letter and return envelope. The return envelope, one size less than the business envelope, was pre-printed with the researcher's return address and affixed with first-class postage. Each questionnaire with cover letter and stamped addressed return envelope was mailed to the population of 401 administrative leaders of nursing programs.
A week after the initial mailing, the first follow-up was sent. A post card (see appendix C) was mailed to the census as a reminder to those who had not responded, and as thank you notification to those individuals who had responded. The post card message was printed on one side; the other side was printed with the return address of the official academic department. The post cards were purchased pre-stamped from the United State Post Office. Four weeks after the original mailout date, a second follow-up was sent. A replacement questionnaire, new cover letter (see appendix D) and stamped addressed return envelope were sent to the 181 (45%) non-respondents. Nine weeks after the original mail out date, 308 (76%) had responded, and data collection was terminated.

Data Analysis Plan

Of the 308 questionnaires returned, a total of 285 (71%) were found to be complete and usable. Descriptive statistics were used to describe the respondents with respect to the variables of education, gender, age, length of employment at their institution, and length of time in their administrative position.

Population of Nursing Programs

The nursing programs were categorized on the basis of the Carnegie Foundation Classification scheme (1987) of higher education to determine the representativeness of the types of institutions of the respondents. The Carnegie Classification groups colleges and universities on the basis of the level of degree offered and the comprehensiveness of their missions. The
categories are as follows: (a) Research Universities I such as The Ohio State
University, Case Western Reserve University, University of New Mexico,
and Howard University; (b) Research Universities II such as University of
Delaware, Arizona University, Florida State University, and Auburn
University; (c) Doctorate-granting Universities I such as University of
Northern Colorado, University of South Florida, Kent State University, and
SUNY at Binghamton; (d) Doctorate-granting Universities II such as
University of Texas at Arlington, University of San Francisco, Andrews
University, and Montana State University; (e) Comprehensive Universities
and Colleges I such as University of Bridgeport, Chicago State University,
Wichita State University, and East Carolina University; (f) Comprehensive
Universities and Colleges II such as Alcorn State University, Northwestern
Oklahoma State University, and Berea College; (g) Liberal Arts Colleges I
such as Albright College, Southern Nazarene University, Thomas More
College, and Depauw University; (h) Liberal Arts Colleges II such as Trinity
Christian College, Saint Anselm College, Marion College of Fond Du Lac,
and North Park College; (i) Liberal Arts Colleges II* such as Mobile College,
Clarke College, MaryMount College, and Spalding University; and (j)
Professional Schools and other Specialized Institutions such as University of
Texas at Houston, Medical University of South Carolina, Oregon Health
Sciences University, and Medical College of Georgia (Carnegie Foundation,
1987; NLN, 1988). All categories were determined to be represented by the
respondents (see Table 1). The four institutional categories were used to
facilitate the comparison of nursing programs in the categories and none of
the categories were split between AAUP categories.
### Table 1

**Number and Percentage of Respondents by Carnegie Classification**

<table>
<thead>
<tr>
<th>Carnegie Classification</th>
<th>Number in Population</th>
<th>Number in Sample</th>
<th>Percentage of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research I</td>
<td>40</td>
<td>31</td>
<td>75.0</td>
</tr>
<tr>
<td>Research II</td>
<td>18</td>
<td>12</td>
<td>66.6</td>
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<tr>
<td>Doctorate I</td>
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<td>15</td>
<td>62.5</td>
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<tr>
<td>Doctorate II</td>
<td>24</td>
<td>18</td>
<td>75.0</td>
</tr>
<tr>
<td>Comprehensive I</td>
<td>154</td>
<td>110</td>
<td>71.4</td>
</tr>
<tr>
<td>Comprehensive II</td>
<td>45</td>
<td>30</td>
<td>66.6</td>
</tr>
<tr>
<td>Liberal Arts I</td>
<td>14</td>
<td>11</td>
<td>78.5</td>
</tr>
<tr>
<td>Liberal Arts II</td>
<td>11</td>
<td>6</td>
<td>54.5</td>
</tr>
<tr>
<td>Liberal Arts II*</td>
<td>56</td>
<td>43</td>
<td>76.8</td>
</tr>
<tr>
<td>Specialized</td>
<td>15</td>
<td>9</td>
<td>60.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>401</strong></td>
<td><strong>285</strong></td>
<td></td>
</tr>
</tbody>
</table>

After determining that the respondent sample was representative, the 10 categories of institutions were collapsed into the four categories used by the Center for Education Statistics and adopted by the American Association of University Professors: (a) The four categories were Category I, Doctoral-Level Institutions, of which 93 in the population and 70 (75%) in the sample; (b) Category IIA, Comprehensive Institutions, of which there were 157 in the population and 108 (69%) in the sample; (c) Category IIB, General Baccalaureate, of which there were 137 in the population and 88 (63.9%) in the sample; and (d) Other, Professional schools and other
(63.9%) in the sample; and (d) Other, Professional schools and other specialized institutions, of which there were 15 in the population and 9 (60%) in the sample (Eymonerie, 1989). All institutions in the population are listed by AAUP category in Appendix F. All subsequent statistical analysis of the data with respect to institutional categories was completed using the four categories.

Factor Analysis

Factor analysis was selected as an analytical method for this study because the research called for the use of an existing instrument and applied it to a different population. Applying an existing set of items to a different population necessitates that a method of determining if the constructs identified in the original setting exist in the new setting be used. By examining the coefficients of the items in the factor matrix, referred to as "loadings," the process of factor analysis indicates which, and to what degree, variables relate to an underlying factor or factors that may be used to describe the responses from the sample (Kim & Mueller, 1978a, 1978b; Hinkle, Wiersma & Jurs, 1979).

Confirmatory Factor Analysis

Confirmatory factor analysis can provide a method to assess the degree to which the plausibility of factor models is empirically confirmed: stated differently, it is a way in which specific expectations concerning the number of factors and their loadings are tested on sample data. Therefore, "if a given factorial hypothesis is supported by the data, we will in general also have greater confidence in the appropriateness of the factor analytic
model for the given data” (Kim & Mueller, 1978b, p. 46). Additionally, in empirical confirmation, the requirements for the factors are not likely to meet exactly in the sample and the factor analytic model may not exactly fit the data. Therefore, evaluation of the fit between the factor solution and the observed data is needed to meet a greater number of empirical constraints thereby providing greater confirmation (Kim & Mueller, 1978b; Long, 1983).

Consequently, confirmatory factor analysis* was performed to determine, based on the researcher's data, whether the same factor structure exists for nursing administrative leaders as Cameron's (1978) population.

Three goodness of fit indices were evaluated. Significance of the individual dimension parameters were tested. First, the $x^2$ test was performed to determine overall fit of the questions to the dimensions. The $x^2$ test involves a test of the significance of difference between the observed correlation matrix and the reproduced correlation matrix. The reproduced matrix is the one implied by the parameter estimates. Since the $x^2$ test is dependent on sample size, models with relatively good fit may be rejected when sample size is large such as the 276 used in this study. Therefore, two additional goodness of fit measures, Rho and root mean square, were obtained. Rho is a relative index of the degree of off-diagonal covariation among the observed variables that is explained by the model as specified. Root Mean Square is an absolute measure of fit in that it represents the proportion of off-diagonal covariation accounted for in a model independent of the degrees of freedom (Bentler & Bonett, 1980).

* The computer program used to perform confirmatory factor analysis was from the LISREL VI-Users guide (Joreskog & Sorborn, 1984).
Analysis of $x^2 = 3359.29$, df = 1124, $p < .05$, which indicated the model as specified, did not hold in the population. Rho = .62, which indicated a very poor fit. The root mean square residual .106, which indicated a fair fit. The conclusion was to reject the model as specified based on all three indices (Long, 1983). Therefore, the responses of nursing administrative leaders to the questions in the survey instrument did not fit the dimensions as described by Cameron for the researcher's sample.

Two general problems might be operating to cause the model as specified to not hold in the population. There might be questions loading in other factors than those specified. Second, there are either more or fewer factors than specified in the model. Therefore, an exploratory factor analysis was conducted to ascertain the minimum number of hypothetical factors that account for the observed covariation (Kim & Mueller, 1978a; Hinkle, Wiersma & Jurs (1979).

**Exploratory Factor Analysis**

Exploratory factor analysis is "mainly used as a means of exploring the underlying factor structure without prior specification of number of factors and their loadings" (Kim & Mueller, 1978b). Exploratory factor analysis was completed on the responses to the questionnaire. The common factor model was employed, with squared multiple correlations used as prior communalities. The next step of analysis involved examining the communality and eigenvalues of the 49 variables. Communality is an effort to determine if the variance for a specific variable can be accounted for by a combination of all other variables.
The eigenvalues of the factors indicated that there were six factors that accounted for 81% of the variance. The scree plot (see Figure 1) visually presents the percentage of variance attributable to each of the 49 questions. The scree plot and cumulative variances suggested that six factors were easily interpretable and should be extracted from the data.

Next, an oblique rotation of the factors was completed to make the factors more easily interpretable. Using a Harris-Kaiser orthoblique rotation of the six factors, a very good simple structure was obtained (Kim & Mueller, 1978a). Using at least a .4 value for the coefficients of the factors (referred to as "loadings") requirement, those variables coinciding with the six factors were identified (Harman, 1967, Kim & Mueller, 1978b). Table 2 lists the six factor matrix obtained. Initially, six of the factors appeared important; however, factor six (x) was excluded after close examination showed that it was not substantially meaningful for this study. Therefore, further analysis occurred on 38 questions and five factors. In reviewing the factor loadings, the following guidelines were used: (a) strongly related variables should have a value of .8 or more, (b) moderately related variables should have a value of .5 or more, and (c) insignificant relationships are identified by values below .5 (Downie & Heath, 1974).

The Harris-Kaiser orthoblique rotation yielded five factors and 38 questions that represented the three original dimensions of organizational effectiveness: ability to acquire resources, system openness and community interaction, and organizational health. The factors labeled as "involvement in the environment" (S1) and "adaptiveness of the environment" (S2), corresponded to the dimension of system openness and community interaction; the factors labeled as "procuring resources" (R1) and
"availability of resources" (R2) corresponded to the dimensions of the ability to acquire resources; and the factor O labeled as "day-to-day functioning" corresponded to the dimension of organizational health. An indepth review of the five factors follows (see Table 3 for description of the items).

The day-to-day functioning factor, corresponding to the organizational health-internal dimension, was comprised of 17 questions. Eight
Table 2

Factor Matrix

<table>
<thead>
<tr>
<th>Factor 1 (R2)</th>
<th>Factor 2 (S1)</th>
<th>Factor 3 (R)</th>
<th>Factor 4 (R1)</th>
<th>Factor 5 (S2)</th>
<th>Factor 6 (x)</th>
</tr>
</thead>
<tbody>
<tr>
<td>r1</td>
<td>-0.03</td>
<td>0.38</td>
<td>0.22</td>
<td>0.16</td>
<td>0.05</td>
</tr>
<tr>
<td>r3</td>
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<td>0.13</td>
<td>0.18</td>
<td>0.36</td>
<td>-0.03</td>
</tr>
<tr>
<td>r4</td>
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<td>-0.31</td>
<td>0.45</td>
<td>0.01</td>
</tr>
<tr>
<td>r5</td>
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<td>-0.05</td>
<td>-0.00</td>
<td>0.85</td>
<td>0.04</td>
</tr>
<tr>
<td>r10</td>
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<td>-0.14</td>
<td>0.04</td>
<td>0.03</td>
</tr>
<tr>
<td>r11</td>
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<td>-0.10</td>
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<td>-0.09</td>
</tr>
<tr>
<td>r13</td>
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<td>-0.11</td>
</tr>
<tr>
<td>r21</td>
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<td>-0.08</td>
<td>-0.15</td>
<td>0.15</td>
</tr>
<tr>
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<td>r23</td>
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<td>-0.05</td>
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</tr>
<tr>
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<td>-0.02</td>
<td>0.07</td>
<td>-0.05</td>
</tr>
<tr>
<td>s2</td>
<td>-0.06</td>
<td>-0.36</td>
<td>0.02</td>
<td>0.84</td>
<td>0.02</td>
</tr>
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<td>s6</td>
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</tr>
<tr>
<td>s7</td>
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<td>-0.12</td>
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</tr>
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<td>-0.03</td>
</tr>
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<td>s15</td>
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</tr>
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<td>s16</td>
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</tr>
<tr>
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<td>0.11</td>
<td>-0.13</td>
<td>0.77</td>
</tr>
<tr>
<td>s20</td>
<td>0.03</td>
<td>0.12</td>
<td>0.02</td>
<td>-0.06</td>
<td>0.77</td>
</tr>
<tr>
<td>c14</td>
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<td>0.20</td>
<td>-0.07</td>
<td>-0.04</td>
</tr>
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<td>0.72</td>
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</tr>
<tr>
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<td>0.04</td>
<td>0.78</td>
<td>-0.07</td>
<td>0.04</td>
</tr>
<tr>
<td>c28</td>
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<td>0.08</td>
<td>0.70</td>
<td>-0.04</td>
<td>0.07</td>
</tr>
<tr>
<td>c29</td>
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</tr>
<tr>
<td>c30</td>
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<td>0.08</td>
<td>-0.08</td>
</tr>
<tr>
<td>c31</td>
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<tr>
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<td>0.17</td>
<td>-0.09</td>
</tr>
<tr>
<td>c35</td>
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<td>0.88</td>
<td>0.04</td>
<td>0.00</td>
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<td>0.03</td>
<td>0.87</td>
<td>-0.16</td>
<td>-0.02</td>
</tr>
<tr>
<td>c37</td>
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<td>0.12</td>
<td>0.77</td>
<td>-0.14</td>
<td>-0.05</td>
</tr>
<tr>
<td>c38</td>
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<td>-0.00</td>
<td>-0.00</td>
</tr>
<tr>
<td>c39</td>
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<td>0.61</td>
<td>0.06</td>
<td>0.02</td>
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<td>c40</td>
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<td>0.46</td>
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<td>0.02</td>
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<tr>
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<td>-0.01</td>
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</tr>
<tr>
<td>c43</td>
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<td>0.01</td>
<td>-0.05</td>
<td>-0.02</td>
<td>-0.01</td>
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<tr>
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<td>-0.10</td>
<td>0.13</td>
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<td>0.20</td>
<td>0.43</td>
<td>0.32</td>
<td>-0.03</td>
</tr>
</tbody>
</table>
questions (26, 27, 28, 32, 33, 35, 36, 37) registered loadings of .7 or higher. Eight questions (29, 31, 38, 39, 30, 34, 40, 48) registered loadings of .5 or .6. One question, 49, had a loading of .4 but was included in the analysis since it was closely related in content to the other questions. Although 16 of these questions had loadings on the remaining four columns that were close to zero indicating that these questions should be grouped exclusively in this factor, 17 questions were included in further analysis. Four of these 17 questions (39, 40, 48, 49) when examined may not be viewed as reflecting day-to-day functioning, but conceptually there is a close relationship to organizational health in general; therefore, for organizational and descriptive purposes they are included in the dimension.

The adaptativeness of the environment factor, representing the first of two parts of system openness and community interaction, includes six questions (15,16,17,18,19,20). All six of the questions registered loadings of .8 or higher. These questions all had loadings on the remaining four columns that were close to zero indicating that they should be grouped exclusively in this factor. The common issue related to these questions could be described as reflecting the adaptativeness of the nursing program's external operating environment. The factor involvement in the environment, representing the second part of system openness and community interaction, included six questions (6, 7, 8, 9, 12, 13). Of the six questions, three (6, 7, 12) registered loadings of .7 or higher and three (9, 12, 13) had .5. These questions again referred to the external environment; however, they related to specifics of the nursing program's community relations and programs. All but one question, 9, had loadings on the remaining four columns that were close to zero indicating that they could be grouped together. Question 9 had
loadings on more than one column, but was predominantly on the Involvement in the environment factor, therefore, it was included in further analysis of the data. Question 13 was not originally identified as part of the system openness and community interaction dimension and the content of the question did not relate to this involvement in the environment factor, therefore, it was excluded from further analysis.

The procuring of resources factor, representing the first of two parts of ability to acquire resources, includes four questions (2, 3, 4, 5). Two questions (2, 3) registered loadings of .8 or higher, and the other, (5 and 4) had .5 and .4 respectively. All four questions dealt with the ability of the nursing program to attract resources both financial and nonfinancial. The availability of resources factor, representing the second part of the ability to acquire resources, includes six questions (10, 21, 22, 23, 24, 25). Four questions (22, 23, 24, 25) registered loadings of .6 or .7, while two (10 and 21) questions registered loadings of .5. All six questions dealt with the availability of resources rather than acquiring the resources. The distinction between the groupings appears to be with whether the resources are available versus attainable. The succeeding data analysis was completed using the 38 items and the five factors identified by the exploratory factor analysis. The items within each factor is listed and described in Table 3.

In conclusion, the original three dimensions of organizational effectiveness were refined into five factors of organizational effectiveness: organizational health dimension refined to day-to-day functioning; ability to acquire resources dimension refined to procuring resources and availability of resources; system openness and community interaction dimension refined to involvement in the environment and adaptiveness of the
Table 3

Questionnaire Item Description Matched with Five Factors of Organizational Effectiveness

<table>
<thead>
<tr>
<th>External Factors</th>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procuring Resources</td>
<td>2</td>
<td>obtaining financial resources</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>faculty drawing power</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>national student drawing power</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>obtain resources</td>
</tr>
<tr>
<td>Availability of Resources</td>
<td>10</td>
<td>faculty national reputations</td>
</tr>
<tr>
<td></td>
<td>21</td>
<td>prospective students</td>
</tr>
<tr>
<td></td>
<td>22</td>
<td>prospective faculty</td>
</tr>
<tr>
<td></td>
<td>23</td>
<td>professional development</td>
</tr>
<tr>
<td></td>
<td>24</td>
<td>community involvement</td>
</tr>
<tr>
<td></td>
<td>25</td>
<td>grants and outside support</td>
</tr>
<tr>
<td>Adaptiveness of the</td>
<td>15</td>
<td>autonomy versus regulations</td>
</tr>
<tr>
<td>Environment</td>
<td>16</td>
<td>unimposing versus controlling</td>
</tr>
<tr>
<td></td>
<td>17</td>
<td>stable versus turbulent</td>
</tr>
<tr>
<td></td>
<td>18</td>
<td>predictable versus unpredictable</td>
</tr>
<tr>
<td></td>
<td>19</td>
<td>accepting versus rejecting</td>
</tr>
<tr>
<td></td>
<td>20</td>
<td>cooperative versus hostile</td>
</tr>
<tr>
<td>Involvement in the</td>
<td>6</td>
<td>professional activities</td>
</tr>
<tr>
<td>Environment</td>
<td>7</td>
<td>community relations</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>number on boards</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>number of sponsored programs</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>productive relationships</td>
</tr>
<tr>
<td>Internal Factors</td>
<td>26</td>
<td>student-faculty relationships</td>
</tr>
<tr>
<td>Day-to-day Functioning</td>
<td>27</td>
<td>interdepartmental relationships</td>
</tr>
<tr>
<td></td>
<td>28</td>
<td>patterns of supervision</td>
</tr>
<tr>
<td></td>
<td>29</td>
<td>equity</td>
</tr>
<tr>
<td></td>
<td>30</td>
<td>recognitions</td>
</tr>
<tr>
<td></td>
<td>31</td>
<td>feedback</td>
</tr>
<tr>
<td></td>
<td>32</td>
<td>type of communications</td>
</tr>
<tr>
<td></td>
<td>33</td>
<td>social environment</td>
</tr>
<tr>
<td></td>
<td>34</td>
<td>flexibility</td>
</tr>
<tr>
<td></td>
<td>35</td>
<td>levels of trust</td>
</tr>
<tr>
<td></td>
<td>36</td>
<td>conflicts</td>
</tr>
<tr>
<td></td>
<td>37</td>
<td>resolution of conflicts</td>
</tr>
<tr>
<td></td>
<td>38</td>
<td>use of expertise</td>
</tr>
<tr>
<td></td>
<td>39</td>
<td>organizational health</td>
</tr>
<tr>
<td></td>
<td>40</td>
<td>planning</td>
</tr>
<tr>
<td></td>
<td>48</td>
<td>mission</td>
</tr>
<tr>
<td></td>
<td>49</td>
<td>unique identity</td>
</tr>
</tbody>
</table>
environment. One factor related to internal aspects of organizational effectiveness (day-to-day functioning) and the other four factors related to external aspects. The items from the questionnaire within each factor are listed and described in Table 3.

Inferential Statistics

Next, in order to answer the research questions, especially to determine whether differences among the college and university nursing programs were statistically significant or not, analysis of variance (ANOVA) was used. ANOVA was used particularly to determine if there was a significant difference in responses to dimensions of organizational effectiveness by category and characteristics of the institutions.

Two stepwise discriminant analyses were conducted for the purpose of determining how well the data on the internal factor and the four external factors distinguished between nursing programs on the basis of (a) public versus private classification, and (b) institutional category.

Last, a series of correlated groups t-tests were completed to determine whether, for each of the institutional groups, internal or external responses were equally favorable or one was more favorable.

Summary

This chapter discussed the selection of the mail survey approach and detailed the categorization of the population sample. The questionnaire construction, selection, and design was described, and data collection procedures were explained. The data analysis plan was presented, including
the use of descriptive statistics, factor analysis, both confirmatory and exploratory, and inferential statistics.
Chapter IV
Analysis of Data

This chapter presents the analysis of the data in two sections. The first section describes the administrative leaders of the nursing programs' sample. The second section reviews the dimensions of organizational effectiveness used in this study and presents the data systematically to answer sequentially the research questions that guided the study. Statistical differences of the data were calculated at the .05 level of significance.

Characteristics of the Population

Of a total of 401 questionnaires mailed to administrative leaders of nursing programs, 308 (76.8%) were returned; of those returned, 285 (71%) were usable and comprise the sample for the purposes of this study. Of these, 154 (54%) were public and 131 (46%) were private institutions. When analyzed against 10 of the Carnegie Foundation classifications for higher education institutions, it was found that each classification was represented by between 55% and 75% of the total possible respondents (see Table 1). With respect to gender and age of the respondents for the sample institutions, 96.8% (n=276) were female, and 3.2% (n=9) were male. They ranged in age from 31 to 67 years, with the majority of the respondents between the ages of 41 and 57. The average length of their tenure with the
organization was 9.7 years, with a range of six months to 36 years; the average length of tenure in their current administrative position was 5.3 years, with a range of two months to thirty six years. With respect to highest degree obtained, 23.5% (n=67) had a doctorate in nursing, 56.1% (n=160) had doctorates in other fields, 17.2% (n=49) had master's degrees, and the remaining 3.1% (n=9) had baccalaureate degrees.

Dimensions of Organizational Effectiveness

The purpose of the study was to describe the organizational effectiveness of nursing programs using three dimensions of organizational effectiveness developed by Cameron (1978b). Following the factor analysis reported in Chapter 3, the 49 items describing the three dimensions of organizational effectiveness yielded five factors encompassing 38 of the original 49 items.

The researcher identified two factors that were descriptive of the ability to acquire resource dimension: (a) procuring resources, and (b) availability of resources. Two factors were identified for the system openness and community interaction dimension: (a) involvement in the environment, and (b) adaptiveness of the environment. The fifth factor identified was for the organizational health dimension: day-to-day functioning. The administrative leaders were asked to respond to questions selecting from a 7-point likert scale: 1 indicating the greatest amount of agreement with a statement, and seven indicating the least amount of agreement with a statement. Thus, the data reported below are limited to 38 items and are described in terms of the mean values for the items comprising each of five factors.
Presentation of the Findings by Research Question

**Research question 1:** Is there a difference among college and university nursing programs on the dimension of ability to acquire resources?

The dimension of ability to acquire resources was described by two factors: procuring of resources, and availability of resources.

**Procuring resources.** The administrative leaders were asked to what extent certain characteristics related to the ability to procure financial and nonfinancial resources are typical of their nursing programs. The analysis included data from four items of this factor. Table 4 displays these items, their content description and group means by institutional category.

### Table 4

Content Description and Means of Responses to Items Included in the Procuring Resources Factor on the Basis of Institutional Category

<table>
<thead>
<tr>
<th>Item</th>
<th>Content Description</th>
<th>Bacca-laureate</th>
<th>Comprehensive</th>
<th>Doctoral</th>
<th>Specialized/Professional</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Obtaining financial resources</td>
<td>4.05</td>
<td>4.15</td>
<td>3.76</td>
<td>2.55</td>
</tr>
<tr>
<td>3</td>
<td>Faculty drawing power</td>
<td>5.41</td>
<td>4.91</td>
<td>4.03</td>
<td>2.56</td>
</tr>
<tr>
<td>4</td>
<td>National student drawing power</td>
<td>4.42</td>
<td>4.55</td>
<td>3.79</td>
<td>3.67</td>
</tr>
<tr>
<td>5</td>
<td>Obtaining resources</td>
<td>3.69</td>
<td>3.89</td>
<td>3.50</td>
<td>2.78</td>
</tr>
</tbody>
</table>
When the responses to each question are reviewed, there is more similarity than difference among each institutional category on each item. However, the most difference appears to be between Specialized/Professional and Baccalaureate on item 3. To answer the research question, the data from the responses to the four items were aggregated to obtain the mean for this factor by institutional category. These data are presented in Table 5.

Table 5

<table>
<thead>
<tr>
<th>Procuring Resources Factor</th>
<th>Means, Standard Deviations and Range</th>
<th>on the basis of Institutional Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category</td>
<td>Means</td>
<td>SD</td>
</tr>
<tr>
<td>Sp/Professional</td>
<td>2.92&lt;sup&gt;A&lt;/sup&gt;</td>
<td>.76</td>
</tr>
<tr>
<td>Doctoral</td>
<td>3.77&lt;sup&gt;A,B&lt;/sup&gt;</td>
<td>1.17</td>
</tr>
<tr>
<td>Comprehensive</td>
<td>4.37&lt;sup&gt;B&lt;/sup&gt;</td>
<td>1.22</td>
</tr>
<tr>
<td>Baccalaureate</td>
<td>4.39&lt;sup&gt;B&lt;/sup&gt;</td>
<td>1.10</td>
</tr>
<tr>
<td>Total</td>
<td>4.17</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Means with same superscripts are not significantly different at p<.05 level.

In general, the administrative leaders perceived their nursing programs to be moderately successful in procuring resources. The range of the responses from the total sample for the procuring of resources factor was from 1.0 to 6.75 with an overall mean of 4.17 (see Table 5). These data indicate that there are differences among college and university nursing programs. In looking at the data by institutional type, the nursing programs in Specialized/Professional institutions had a narrow range of responses indicating that it was usually typical for them to procure resources. A
comparison of the means indicated statistically significant differences between nursing programs procuring resources in Specialized/Professional institutions and nursing programs in Comprehensive and Baccalaureate institutions.

**Availability of resources.** The administrative leaders were asked to rate the external environment (outside their university) related to the availability of resources, according to its richness or leanness. The analysis of this factor, the second part of the ability to acquire resources dimension, included data from six items on the questionnaire (10,21,22,23,24,25). Table 6 displays these items, their content description and group means by institutional category.

**Table 6**

<table>
<thead>
<tr>
<th>Item</th>
<th>Content Description</th>
<th>Bacca­laureate</th>
<th>Compre­hensive</th>
<th>Doctoral</th>
<th>Specialized/ Professional</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Faculty national reputations</td>
<td>5.78</td>
<td>5.50</td>
<td>4.54</td>
<td>4.11</td>
</tr>
<tr>
<td>21</td>
<td>Prospective students</td>
<td>5.29</td>
<td>4.57</td>
<td>4.78</td>
<td>2.89</td>
</tr>
<tr>
<td>22</td>
<td>Prospective faculty</td>
<td>4.73</td>
<td>4.62</td>
<td>4.37</td>
<td>2.78</td>
</tr>
<tr>
<td>23</td>
<td>Professional development</td>
<td>3.58</td>
<td>3.65</td>
<td>3.01</td>
<td>1.33</td>
</tr>
<tr>
<td>24</td>
<td>Community involvement</td>
<td>2.59</td>
<td>2.51</td>
<td>2.20</td>
<td>1.22</td>
</tr>
<tr>
<td>25</td>
<td>Grants and outside support</td>
<td>5.08</td>
<td>4.72</td>
<td>4.67</td>
<td>3.22</td>
</tr>
</tbody>
</table>
When the responses to each question are reviewed, there is more similarity among baccalaureate, comprehensive, and doctoral institutions than specialized/professional. There are more differences between the responses to 21-25 by specialized/professional than all others. To answer the research question, the data form the responses to the six items were aggregated to obtain the mean for the factor by institutional category. The data are presented in Table 7.

**Table 7**

**Availability of Resources Factor**
**Means, Standard Deviations and Range**
on the Basis of Institutional Category

<table>
<thead>
<tr>
<th>Category</th>
<th>Means</th>
<th>SD</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sp/Professional</td>
<td>2.59C</td>
<td>.83</td>
<td>1.29-3.57</td>
</tr>
<tr>
<td>Doctoral</td>
<td>3.94B</td>
<td>.83</td>
<td>1.14-6.0</td>
</tr>
<tr>
<td>Comprehensive</td>
<td>4.35A</td>
<td>.94</td>
<td>1.57-6.57</td>
</tr>
<tr>
<td>Baccalaureate</td>
<td>4.62A</td>
<td>.78</td>
<td>1.57-6.0</td>
</tr>
<tr>
<td>Total</td>
<td>4.24</td>
<td></td>
<td>1.14-6.57</td>
</tr>
</tbody>
</table>

Means with same superscripts are not significantly different at p<.05 level.

In general, the administrative leaders perceived the availability of resources in the environment for their nursing programs to be about right as opposed to rich or lean. The range of responses from the total sample for the availability of resources factor was from 1.14 to 6.57 with an overall mean of 4.24 (see Table 7). These data show that there is a difference among college and university nursing programs. In looking at the data by
institutional type, the nursing programs in Specialized/Professional institutions had a narrow range of responses indicating that they did not perceive any leanness, while the nursing programs in Doctoral, Comprehensive, and Baccalaureate institutions indicated that they perceived some leanness related to the availability of the resources in the environment. A comparison of the means indicated statistically significant differences between nursing programs in Specialized/Professional institutions and nursing programs in all other institutions on the availability of resources. Additionally, statistically significant differences were indicated between nursing programs in Doctoral institutions and nursing programs in Comprehensive and Baccalaureate institutions on the availability of resources.

College and university nursing programs differ on the dimension of ability to acquire resources. Statistically significant differences are reported in nursing programs in Specialized/Professional institutions for both the procuring resources and the availability of resources factors, and in nursing programs in Doctoral institutions for the availability of resources. Therefore, it is likely that nursing programs in Specialized/Professional institutions perceive themselves to be successful in procuring resources and that they have a richness regarding the availability of resources in their environment. The data reveal that nursing programs in Doctoral institutions also perceive a richness regarding the availability of resources in their environment.
Research question 2: Is there a difference among college and university nursing programs on the dimension of system openness and community interaction?

The dimension of system openness and community interaction was described by two factors: involvement in the environment and adaptiveness of the environment.

Involvement in the environment. The administrative leaders were asked about the extent or amount of their nursing programs' community-environment relations. The analysis of this factor included data from five items on the questionnaire (6, 7, 8, 9, 12). Table 8 displays these items, their content description, and group means by institutional category.

Table 8
Content Description and Means of Responses to Items Included in the Involvement in the Environment Factor on the Basis of Institutional Category

<table>
<thead>
<tr>
<th>Item</th>
<th>Content Description</th>
<th>Bacca-laureate</th>
<th>Comprehensive</th>
<th>Doctoral</th>
<th>Specialized/Professional</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Professional activities</td>
<td>2.57</td>
<td>2.38</td>
<td>2.24</td>
<td>1.11</td>
</tr>
<tr>
<td>7</td>
<td>Community relations</td>
<td>2.50</td>
<td>2.49</td>
<td>2.39</td>
<td>1.67</td>
</tr>
<tr>
<td>8</td>
<td>Number on boards</td>
<td>3.31</td>
<td>3.25</td>
<td>2.74</td>
<td>2.33</td>
</tr>
<tr>
<td>9</td>
<td>Number of sponsored programs</td>
<td>4.51</td>
<td>4.42</td>
<td>3.86</td>
<td>3.50</td>
</tr>
<tr>
<td>12</td>
<td>Productive relationships</td>
<td>2.66</td>
<td>2.58</td>
<td>2.58</td>
<td>1.78</td>
</tr>
</tbody>
</table>
When the responses to each question are reviewed, there is more similarity among the baccalaureate, comprehensive, and doctoral institutions than the specialized/professional. There are more differences between the responses to 6, 7, and 12 by specialized/professional than all others.

To answer the research questions, the data from the responses to the five items were aggregated to obtain the mean for this factor by institutional category. These data are presented in Table 9.

<table>
<thead>
<tr>
<th>Category</th>
<th>Means</th>
<th>SD</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sp/Professional</td>
<td>2.12C</td>
<td>.78</td>
<td>1.00-3.2</td>
</tr>
<tr>
<td>Doctoral</td>
<td>2.79B,C</td>
<td>1.06</td>
<td>1.00-6.2</td>
</tr>
<tr>
<td>Comprehensive</td>
<td>3.02A</td>
<td>.96</td>
<td>1.00-5.6</td>
</tr>
<tr>
<td>Baccalaureate</td>
<td>3.10A,B</td>
<td>.97</td>
<td>1.20-5.4</td>
</tr>
<tr>
<td>Total</td>
<td>2.96</td>
<td>.97</td>
<td>1.0-6.2</td>
</tr>
</tbody>
</table>

Means with same superscripts are not significantly different at p<.05 level.

In general, the administrative leaders perceived their nursing programs' involvement in the environment to be considerable. The range of responses for the total sample for this factor was 1.0 to 6.2 with an overall mean of 2.96 (see Table 9). These data indicate on this factor that there are differences among college and university nursing programs. In looking at
the data by institutional type, the nursing programs in Specialized/Professional institutions' narrow range of responses indicated a very large to large amount of involvement in the community. A comparison of the means indicated statistically significant differences between nursing programs in Specialized/Professional institutions and nursing programs in Baccalaureate institutions.

Adaptiveness of the environment. The administrative leaders were asked to rate to what extent the external environment (outside their university) was adaptive. The analysis of this factor, the second part of the system openness and community interaction dimension, included data from six items on the questionnaire (15, 16, 17, 18, 19, 20). Table 10 displays these items, their content description, and group means by institutional category.

When the responses to each question are reviewed, there is more similarity than difference among each category on each item. To answer the research question, the data from the responses to the six items were aggregated to obtain the mean for this factor by institutional category. These data are presented in Table 11.
Table 10
Content Description and Means of Responses to Items Included in the Adaptiveness of the Environment Factor on the Basis of Institutional Category

<table>
<thead>
<tr>
<th>Item</th>
<th>Content Description</th>
<th>Bacca­laureate</th>
<th>Compre­hensive</th>
<th>Doctoral</th>
<th>Specialized/Professional</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>Autonomy vs. regulations</td>
<td>2.78</td>
<td>3.13</td>
<td>2.97</td>
<td>2.67</td>
</tr>
<tr>
<td>16</td>
<td>Unimposing vs. controlling</td>
<td>3.00</td>
<td>3.11</td>
<td>3.05</td>
<td>2.78</td>
</tr>
<tr>
<td>17</td>
<td>Stable vs. turbulent</td>
<td>3.27</td>
<td>3.69</td>
<td>3.68</td>
<td>3.56</td>
</tr>
<tr>
<td>18</td>
<td>Predictable vs. unpredictable</td>
<td>3.07</td>
<td>3.59</td>
<td>3.41</td>
<td>3.44</td>
</tr>
<tr>
<td>19</td>
<td>Accepting vs. rejecting</td>
<td>2.46</td>
<td>2.66</td>
<td>2.63</td>
<td>2.56</td>
</tr>
<tr>
<td>20</td>
<td>Cooperative vs. hostile</td>
<td>2.44</td>
<td>2.66</td>
<td>2.63</td>
<td>2.56</td>
</tr>
</tbody>
</table>

Table 11
Adaptiveness of the Environment Factor Means, Standard Deviations and Range on the basis of Institutional Category

<table>
<thead>
<tr>
<th>Category</th>
<th>Means</th>
<th>SD</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sp/Professional</td>
<td>2.93^A</td>
<td>.88</td>
<td>1.67-4.50</td>
</tr>
<tr>
<td>Doctoral</td>
<td>3.10^A</td>
<td>1.33</td>
<td>1.00-6.33</td>
</tr>
<tr>
<td>Comprehensive</td>
<td>3.15^A</td>
<td>1.15</td>
<td>1.00-6.5</td>
</tr>
<tr>
<td>Baccalaureate</td>
<td>3.80^A</td>
<td>1.12</td>
<td>1.00-5.33</td>
</tr>
<tr>
<td>Total</td>
<td>3.06^A</td>
<td></td>
<td>1.0-6.5</td>
</tr>
</tbody>
</table>

Means with same superscripts are not significantly different at p<.05 level.
In general, the administrative leaders perceived their environments to be more adaptive than not adaptive. The range of the responses from the total sample for the adaptiveness of the environment was 1.0 to 6.5 with an overall mean of 3.06 (see Table 11). These data indicate that there are differences among college and university nursing programs. In looking at the data by institutional type, nursing programs in all institutional categories perceived their environments to be very adaptive. A comparison of means indicated that there were no statistically significant differences between the nursing programs.

College and university nursing programs differ on the dimension of system openness and community interaction. Since no statistically significant differences were indicated in the adaptiveness of the environment factor and the means of the institutional categories were very similar in number, it is possible to infer that all nursing programs' environments are moderately adaptive. However, the involvement in the environment factor indicated statistically significant differences between two categories of institutions. Therefore, it is possible to infer that nursing programs in Specialized/Professional institutions are more involved in their environment than nursing programs in Baccalaureate institutions.

**Research question 3: Is there a difference among college and university nursing programs on the dimension of organizational health?**

The dimension of organizational health was described by a factor termed day-to-day functioning. The administrative leaders were asked to rate the general day-to-day functioning, of their nursing programs as related
to the ability to process information. The analysis of this factor included data from 17 items on the questionnaire (26-40, 48, 49). Table 12 displays

Table 12

Content Description and Means of Responses to Items Included in the Day-to-Day Functioning Factor on the Basis of Institutional Category

<table>
<thead>
<tr>
<th>Item</th>
<th>Content Description</th>
<th>Bacca-laureate</th>
<th>Comprehensive</th>
<th>Doctoral</th>
<th>Specialized/Professional</th>
</tr>
</thead>
<tbody>
<tr>
<td>26</td>
<td>Student-faculty relationships</td>
<td>1.76</td>
<td>2.51</td>
<td>2.80</td>
<td>2.11</td>
</tr>
<tr>
<td>27</td>
<td>Interdepartmental relationships</td>
<td>2.49</td>
<td>2.84</td>
<td>3.16</td>
<td>2.67</td>
</tr>
<tr>
<td>28</td>
<td>Patterns of supervision</td>
<td>2.15</td>
<td>2.36</td>
<td>2.74</td>
<td>2.33</td>
</tr>
<tr>
<td>29</td>
<td>Equity</td>
<td>2.39</td>
<td>2.38</td>
<td>2.45</td>
<td>2.00</td>
</tr>
<tr>
<td>30</td>
<td>Recognition</td>
<td>2.49</td>
<td>2.54</td>
<td>2.49</td>
<td>1.78</td>
</tr>
<tr>
<td>31</td>
<td>Feedback</td>
<td>2.39</td>
<td>2.39</td>
<td>2.55</td>
<td>2.56</td>
</tr>
<tr>
<td>32</td>
<td>Type of communications</td>
<td>2.41</td>
<td>2.59</td>
<td>2.66</td>
<td>2.56</td>
</tr>
<tr>
<td>33</td>
<td>Social environment</td>
<td>2.05</td>
<td>2.51</td>
<td>2.62</td>
<td>2.00</td>
</tr>
<tr>
<td>34</td>
<td>Flexibility</td>
<td>2.63</td>
<td>2.74</td>
<td>2.39</td>
<td>2.33</td>
</tr>
<tr>
<td>35</td>
<td>Levels of trust</td>
<td>2.63</td>
<td>3.05</td>
<td>3.05</td>
<td>2.67</td>
</tr>
<tr>
<td>36</td>
<td>Conflicts</td>
<td>2.75</td>
<td>3.11</td>
<td>3.26</td>
<td>2.44</td>
</tr>
<tr>
<td>37</td>
<td>Resolution of conflicts</td>
<td>2.61</td>
<td>2.90</td>
<td>3.03</td>
<td>2.33</td>
</tr>
<tr>
<td>38</td>
<td>Use of expertise</td>
<td>2.29</td>
<td>2.55</td>
<td>2.47</td>
<td>1.67</td>
</tr>
<tr>
<td>39</td>
<td>Organizational health</td>
<td>2.61</td>
<td>2.77</td>
<td>2.82</td>
<td>2.44</td>
</tr>
<tr>
<td>40</td>
<td>Planning</td>
<td>2.51</td>
<td>2.74</td>
<td>2.72</td>
<td>2.56</td>
</tr>
<tr>
<td>48</td>
<td>Mission</td>
<td>1.81</td>
<td>2.06</td>
<td>1.91</td>
<td>1.67</td>
</tr>
<tr>
<td>49</td>
<td>Unique identity</td>
<td>1.78</td>
<td>2.07</td>
<td>2.08</td>
<td>1.67</td>
</tr>
</tbody>
</table>
these items, their content description, and group means by institutional category.

When the responses to each question are reviewed, there is more similarity than difference among each category on each item. To answer the research question, the data from the responses to the 17 items were aggregated to obtain the mean for this factor by institutional category. These data are presented in Table 13.

Table 13
Day-to-Day Functioning Factor
Means, Standard Deviations and Range on the basis of Institutional Category

<table>
<thead>
<tr>
<th>Category</th>
<th>Means</th>
<th>SD</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sp/Professional</td>
<td>2.22A</td>
<td>.46</td>
<td>1.65-2.94</td>
</tr>
<tr>
<td>Doctoral</td>
<td>2.66A</td>
<td>.85</td>
<td>1.00-4.65</td>
</tr>
<tr>
<td>Comprehensive</td>
<td>2.59A</td>
<td>.82</td>
<td>1.18-4.88</td>
</tr>
<tr>
<td>Baccalaureate</td>
<td>2.34A</td>
<td>.97</td>
<td>1.12-5.94</td>
</tr>
<tr>
<td>Total</td>
<td>2.55</td>
<td></td>
<td>1.0-5.94</td>
</tr>
</tbody>
</table>

Means with same superscripts are not significantly different at p<.05 level.

In general, the administrative leaders perceived their nursing programs' day-to-day functioning and ability to process information as very successful. The range of responses from the total sample for the ability to process information factor was from 1.0 to 5.94 with an overall mean of 2.55 (see Table 13). These data indicate that there are differences among college and university nursing programs. In looking at the data by institutional
type, nursing programs in all institutional categories indicated a great deal of success in their ability to process information or in their day-to-day functioning. A comparison of means indicated that there were no statistically significant differences between the nursing programs.

College and university nursing programs differ on the dimension of organizational health; it is important to remember that the use of the term organizational health at this time refers to the total dimension and should not be confused with the item from the survey instrument. The means were very similar and there were no statistically significant differences between the nursing programs in any institutional categories. Therefore, a possible interpretation is that most of the administrative leaders in all institutional categories perceive their organizational health, day-to-day functioning, to be quite successful.

**Research question 4:** What is the relationship between the internal and external dimensions of organizational effectiveness of college and university nursing programs by category of institution?

The external dimension of organizational effectiveness was described by four factors: procuring of resources, availability of resources, involvement in the environment, and adaptiveness of the environment. The range of responses for all the external factors was from 1.53 to 5.66 with an overall mean of 3.62 (see Table 14). The internal dimension of organizational effectiveness was described by one factor: day-to-day functioning. The range of responses from the total sample for this factor was 1.0 to 5.94 with an overall mean of 2.55 (see Table 13).
Table 14

Unweighted Mean of the Four External Factors Comprising External Organizational Effectiveness

<table>
<thead>
<tr>
<th>Factor</th>
<th>n</th>
<th>mean</th>
<th>F</th>
<th>p</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>External Factors</td>
<td>262</td>
<td>3.62</td>
<td>6.07</td>
<td>.001</td>
<td>.07</td>
</tr>
</tbody>
</table>

In general, nursing programs in all institutional categories responded more favorably to the internal factor than the external factors. In looking at the data by the five factors, the analysis of the means indicated that three out of the four factors, representing the external dimension of organizational effectiveness, distinguished between nursing programs on the basis of institutional categories (see Table 15).

Table 15

Analyses of Variance (ANOVA) of Organizational Effectiveness Factors

<table>
<thead>
<tr>
<th>Factor</th>
<th>n</th>
<th>mean</th>
<th>F</th>
<th>p</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Procuring Resources</td>
<td>281</td>
<td>4.17</td>
<td>8.45</td>
<td>.001</td>
<td>.08</td>
</tr>
<tr>
<td>*Availability of Resources</td>
<td>278</td>
<td>4.24</td>
<td>16.83</td>
<td>.001</td>
<td>.16</td>
</tr>
<tr>
<td>*Involvement in Environment</td>
<td>277</td>
<td>2.96</td>
<td>3.21</td>
<td>.024</td>
<td>.03</td>
</tr>
<tr>
<td>Adaptiveness of Environment</td>
<td>274</td>
<td>3.06</td>
<td>1.23</td>
<td>.301</td>
<td>.01</td>
</tr>
<tr>
<td>Ability to Process Information</td>
<td>282</td>
<td>2.54</td>
<td>2.54</td>
<td>.095</td>
<td>.02</td>
</tr>
</tbody>
</table>

*Omnibus F was significant at p<.05.

Further examination of the data by institutional type indicated that nursing programs in Specialized/Professional institutions responded more favorably
to the external factors than nursing programs in Comprehensive and Baccalaureate institutions, while nursing programs in Doctoral institutions responded more favorably to the external factors than nursing programs in Comprehensive institutions (see Table 13). These differences are statistically significant.

To determine for each of the institutional types whether the internal or external responses were equally favorable or one was more favorable, a series of correlated groups t-tests were conducted. The data for all groups indicated that responses to the internal dimension were more favorable than the responses to the external dimensions (see Table 16).

Table 16
Comparisons of Means of External and Internal Factors on the Basis of Institutional Categories

<table>
<thead>
<tr>
<th>Category</th>
<th>External Mean</th>
<th>Internal Mean</th>
<th>t</th>
<th>prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baccalaureate</td>
<td>3.71&lt;sup&gt;B&lt;/sup&gt;</td>
<td>2.23</td>
<td>12.72</td>
<td>.001</td>
</tr>
<tr>
<td>Comprehensive</td>
<td>3.74&lt;sup&gt;B,C&lt;/sup&gt;</td>
<td>2.59</td>
<td>16.98</td>
<td>.001</td>
</tr>
<tr>
<td>Doctoral</td>
<td>3.43&lt;sup&gt;C&lt;/sup&gt;</td>
<td>2.69</td>
<td>7.42</td>
<td>.001</td>
</tr>
<tr>
<td>Sp/Professional</td>
<td>2.74&lt;sup&gt;A&lt;/sup&gt;</td>
<td>2.28</td>
<td>2.49</td>
<td>.041</td>
</tr>
</tbody>
</table>

Means with same superscripts are not significantly different at p<.05 level.

The relationship between the internal and external dimensions of organizational effectiveness of college and university nursing programs by category of institutional type, is that the responses of nursing programs in all institutional categories to the internal factor were more favorable than
the responses to the external factor. While comparison of means of three out of the four external factors indicated differences between institutional category, the strength of the favorable internal responses appears to have counteracted the strength of the external responses. Therefore, the data reveal that nursing programs in all institutional categories perceive themselves to be more successful with internal organizational effectiveness than external organizational effectiveness.

**Research question 5:** What is the relationship between the internal and external dimensions of organizational effectiveness of college and university nursing programs when grouped by public and private classification?

The nursing programs in the sample were fairly evenly distributed between public and private institutions. To briefly reiterate, by internal is meant the four factors of procuring resources, availability of resources, adaptiveness of the environment, and involvement in the environment. The external dimension refers to day-to-day functioning.

In general, nursing programs in public institutions responded more favorably to the internal factor than the external factors. The group mean was lower or more favorable for the day-to-day functioning factor than for the four external factors. In looking at the data more closely, the analysis on the means indicated that for two factors, availability of resources and involvement in the environment, there were statistically significant differences between nursing programs on the basis of the public and private classification (see Table 17).
### Table 17

Analyses of Variance (ANOVAs) of Organizational Effectiveness Factors on the Basis of Public/Private

<table>
<thead>
<tr>
<th>Factor</th>
<th>Mean</th>
<th>F</th>
<th>p</th>
<th>R²</th>
<th>Private Mean</th>
<th>Public Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procuring Resources</td>
<td>4.17</td>
<td>0.65</td>
<td>.421</td>
<td>.00</td>
<td>4.24</td>
<td>4.12</td>
</tr>
<tr>
<td>Availability of Resources</td>
<td>4.24</td>
<td>18.67</td>
<td>.001</td>
<td>.06</td>
<td>4.50*</td>
<td>4.01</td>
</tr>
<tr>
<td>Involvement in the Environment</td>
<td>2.95</td>
<td>5.26</td>
<td>.23</td>
<td>.02</td>
<td>3.10*</td>
<td>2.83</td>
</tr>
<tr>
<td>Adaptiveness of the Environment</td>
<td>3.06</td>
<td>0.01</td>
<td>.930</td>
<td>.00</td>
<td>3.05</td>
<td>3.06</td>
</tr>
<tr>
<td>Ability to Process Information</td>
<td>2.54</td>
<td>1.26</td>
<td>.264</td>
<td>.00</td>
<td>2.48</td>
<td>2.60</td>
</tr>
</tbody>
</table>

*Means are significantly different at p<.05 level.

For both of the two external factors, public institutions responded more favorably. However, in both cases the distinction between public and private explained a small variance in the five factors. Furthermore, the differences between the means were fairly small, particularly for involvement in the environment factor. Consequently, there were no other statistically significant differences between nursing programs on the basis of public versus private classification. Therefore, it is plausible to conclude that public and private differ little in their responses to the internal and external dimensions of organizational effectiveness in nursing programs.
Chapter V
Discussion

Introduction

A number of issues currently are challenging higher education: declining enrollment, decreased federal and state funding, increased demand for accountability, and increased competition among colleges and universities. The recent changes in the environment of nursing programs as units of higher education institutions have had a negative impact on their operation.

Enrollment decline has occurred and is expected to continue. There has been a decrease in subsidies for nursing education programs both at the state and federal levels. Historically, nursing programs as professional schools within higher education are often viewed as being costly to the institution. Consequently, some institutions are even questioning the feasibility of continuing to fund their nursing programs. Therefore, nursing administrators must identify strategies to demonstrate their unit's effectiveness in order to secure resources commensurate with their contributions to the institution.

Additionally, nursing programs within higher education institutions have definite dependencies upon their external environment. This is evidenced by the need to provide practice with clients in multiple settings, provide settings for faculty practice, and provide opportunities for nursing research by faculty and students. Consequently, the foregoing facts underscore the need for studies of organizational effectiveness of nursing programs located in
higher education institutions. Missing from the literature on studies of organizational effectiveness of higher education institutions are studies of nursing programs as units of colleges and universities.

Therefore, the purpose of this study was to describe organizational effectiveness of college and university nursing programs in terms of three dimensions: (a) ability to acquire resources, (b) system openness and community interaction, and (c) organizational health. The questions which guided the research were:

1. Is there a difference among college and university nursing programs on the dimension of ability to acquire resources?
2. Is there a difference among college and university nursing programs on the dimension of system openness and community interaction?
3. Is there a difference among college and university nursing programs on the dimension of organizational health?
4. What is the relationship between the internal and external dimensions of organization effectiveness of the college and university nursing programs by category of institution?
5. What is the relationship between the internal and external dimensions of organizational effectiveness of college and university nursing programs when grouped by public and private classification?

The conceptual framework for the research was developed from the literature on organizational theory in general and higher education organizational theory in particular, general organizational effectiveness theory, organizational effectiveness of higher education institutions, and higher
education nursing programs and organizational effectiveness. Organizational effectiveness as used in this study is reflected in the five factors comprising the three dimensions of organizational effectiveness. The ability to acquire resource dimension, an external dimension, was comprised of procuring of resources and availability of resources factors. The system openness and community interaction dimension, an external dimension, was comprised of involvement in the environment and adaptiveness of the environment factors. Last, the organizational health dimension, an internal dimension, consisted of the day-to-day functioning factor. Consequently, there were four external factors and one internal factor related to three dimensions of organizational effectiveness guiding the intent of this study.

Perceptions from administrative leaders about organizational effectiveness of nursing programs in colleges and universities were collected through the use of a mail survey. The data collection instrument was composed of 65 items and was an adaptation of a survey instrument of organizational effectiveness developed by Cameron (1978b). Of the 401 questionnaires mailed, 308 (76%) were returned with 285 (71%) usable.

Findings

Differences among nursing programs on the dimension of ability to acquire resources. As a group, administrative leaders of the nursing programs perceived their nursing program to be moderately successful in procuring resources, and the availability of the resources to be adequate.

A comparison of the differences by institutional category, suggested administrative leaders in Specialized/Professional institutions perceived their
programs to be more successful in the procuring of resources than did administrative leaders in Comprehensive and Baccalaureate institutions. Closer examination of the items that comprise this factor reveal the difference among the institutional categories is particularly evident in faculty drawing power. The Specialized/Professional category is viewed as more able to attract faculty with national reputations than the other three categories with the least faculty drawing power perceived by the baccalaureate institutions. Additionally, there are more similarities than differences among the institutional categories in national student drawing power and obtaining financial resources. They are less able in those areas than Specialized/Professional institutions. A possible interpretation may be that nursing programs in the Specialized/Professional institutions may have different concerns than the nursing programs in Doctoral, Comprehensive, and Baccalaureate. For example, because a majority of the Specialized/Professional institutions are connected with medical centers, some may be more concerned with acquiring resources for research or their resources may be more dependent upon the internal organization (the Medical School) than others. Similarly, they may have a greater emphasis on graduate education than undergraduate education.

Administrative leaders of nursing programs in Specialized/Professional institutions perceived a richness in the availability of resources. This was compared to a perception of leanness in the availability of resources by administrative leaders in all other categories. A parallel difference was found between Doctoral Institutions on the one hand and Baccalaureate and Comprehensive on the other. Closer examination of the items that comprise
this factor indicate that the differences are particularly evident in prospective students, prospective faculty, professional development, community involvement and grants and outside support. As the Specialized/Professional and Doctoral institutions are more apt to be connected with medical centers, they may view their external environment differently and have more resources available than the other two categories of institutions.

Differences among nursing programs on the dimension of system openness and community interaction. As a group, administrative leaders of the nursing programs, perceived their nursing programs to be involved in the environment to a large degree and the adaptiveness of their environment to be at a high level.

A comparison of the differences by institutional category revealed Specialized/Professional institutions to be more involved in the environment than nursing programs in Baccalaureate institutions. Closer examination of the items that comprise this factor indicate the differences are in relation to professional activities, community relations and productive relationships. The positive responses to the aspects these items addressed is expected since nursing programs are dependent on the community to be successful in providing educational experiences. However, a majority of the nursing programs in Specialized/Professional institutions are more apt to focus on different activities in the environment. Therefore, as suggested earlier, due to their possible reliance on federal and external funds, they are more likely to be concerned with attainment of funds for development and research than programs affiliated with Baccalaureate institutions which have a tendency to focus on community service and procurement of clinical placements for
students. Additionally, the nursing programs in Specialized/Professional institutions are more apt to combine research and offerings of advanced degrees which can also have an effect on their focus in the environment.

The Administrative leaders in all categories of institutions perceived a high level of adaptiveness of the environment. Closer examination of the items that comprise this factor indicate that all institutional categories viewed their environment as cooperative, accepting, predictable, stable, unimposing and autonomous. It may be facilities that employ professional nurses are finding it difficult at this time to fill all their positions, therefore, they are finding it to their benefit to support nursing programs in all institutional categories. For example, in some locations, facilities employing professional nurses are offering tuition reimbursement as well as a bonus for accepting a position at the facility which supports the notion of the willingness of the environment to adapt.

Differences among nursing programs on the dimension of organizational health. As a group, administrative leaders perceived their day-to-day functioning as very successful. A comparison of the differences yielded more similarity than differences among nursing programs in all institutional categories. Closer examination of the items that comprise this factor reveal that all but four of these items were more specific and detailed in nature than other items in the survey instrument thereby possibly reducing variation in interpretation by the respondents. The four items, organizational health, planning, mission and unique identity, not as directly related to day-to-day functioning appeared to reflect the internal aspects of the nursing program at the institutional level while the remaining items appeared to reflect the internal
aspects of the nursing program at the unit level. However, closer examination of these four items did not reveal any more variability than the remaining 13 items. Those items included in day-to-day functioning factor were basically more specific while the other items in the instrument were more general in nature and may have been interpreted more broadly, thus contributing to more variability of response. Additionally, the criteria for NLN accreditation are apt to produce agreement by all institutional categories on the norms and behavior of a healthy functioning nursing program. Another possible explanation may be that all administrative leaders viewed themselves as successfully carrying out all activities related to day-to-day functioning.

Relationship between the internal and external dimensions of organization effectiveness of nursing programs when grouped by category of institution. The day-to-day functioning factor represented the internal dimension of organizational effectiveness. The procuring resources, availability of resources, involvement in the environment, and adaptiveness of the environment factors represented the external dimensions of organizational effectiveness.

As a group, administrative leaders responded more favorably to the internal dimension than to the external dimensions. A comparison of the differences between the internal and external dimensions by institutional type, indicated that nursing programs in Specialized/Professional institutions responded more favorably to the external dimensions than nursing programs in Comprehensive and Baccalaureate institutions, and nursing programs in Doctoral institutions responded more favorably to the external dimension than nursing programs in Comprehensive institutions. A possible interpretation for
this difference may be that Baccalaureate and Comprehensive institutions emphasize preparation for professional practice at the entry level which reflects an internal focus rather than research which reflects a more external focus.

However, for nursing programs in all institutional categories responses to the internal dimension were more favorable than the responses to the external dimensions. A possible interpretation may be most activities of nursing programs are internally focused on areas such as curriculum, faculty, policies, structure and governance, and material resources to a large extent, since the programs studied must fulfill the same NLN accreditation criteria.

**Relationship between the internal and external dimensions of organizational effectiveness of nursing programs when grouped by public and private classification.** The day-to-day functioning factor represented the internal dimension of organizational effectiveness. The procuring resources, availability of resources, involvement in the environment, and adaptiveness of the environment factors represented the external dimensions of organizational effectiveness.

Responses to two external factors, availability of resources and involvement in the environment were found to be statistically significant with respect to the public and private classification. Nursing programs located in public institutions responded more positively to the two factors than private institutions. A possible interpretation may be that while there is a public-political process which funds higher education, most states rely on some form of funding formulas for allocating state resources on the basis of enrollment. Although public institutions may be vulnerable to declining resources
associated with declining enrollment, they nonetheless are more apt to have the state serve as a buffer to extreme financial crises or to have multiple sources of funding than private institutions, which are likely to rely heavily, and in some cases nearly entirely, on enrollment-driven funds. In addition, a public institution may have a specific directive from the legislature relative to their need to interaction with the community and consequently to be more involved in their environment. However, the distinction between public and private was limited. Therefore, this study found that there is not much difference between nursing programs located in public and private institutions with respect to the internal and external dimensions.

Conclusions

Findings

This was a descriptive study of selected dimensions of organizational effectiveness. The use of the population yielded a more complete and sensitive profile of the surveyed NLN accredited baccalaureate programs. The differences between nursing programs in Specialized/Professional institutions and nursing programs in the Doctoral, Comprehensive and Baccalaureate institutions are significant and the small number in the Specialized/Professional category underscore the statistical differences. Even though nursing programs in Specialized/Professional institutions differ significantly from Doctoral, Comprehensive, and Baccalaureate institutions on some aspects of organizational effectiveness, in terms of implications relevant to the total population of nursing programs, it is important to recognize that
the nursing programs in Specialized/Professional categories constitute only 3.5 percent of the population.

With respect to the dimension of ability to acquire resources, nursing programs in Specialized/Professional institutions were perceived as being more able than all others to procure resources and the variable by which the greatest difference occurs is faculty drawing power. The remaining three (Doctoral, Comprehensive, Baccalaureate) institutional categories are similar, but perceived themselves as less able in their responses to the variables of national student drawing power and obtaining financial resources than Specialized/Professional institutions. A possible explanation may be that many higher education institutions are known within a limited regional area; consequently, few institutions are able to draw students from a wide geographical area.

Additionally, nursing programs in Specialized/Professional and Doctoral institutions perceived a richness in the availability of resources in contrast to a perceived leanness on the part of the Comprehensive and Baccalaureate institutional categories. The variables in which the greatest differences occur were prospective students, prospective faculty, professional development, community involvement and grants and outside support. This again may be related to the focus on research and development of Specialized/Professional and Doctoral institutions which enhance their abilities to be successful in the areas described.

With respect to the dimension of system openness and community interaction, nursing programs in Specialized/Professional institutions were perceived as more involved in the environment than all others. This was
particularly evident with the responses to the variables of professional activities, community relations and productive relationships. In contrast, nursing programs in all institutional categories perceived a high level of adaptiveness of the environment. This may be directly related to the need for professional nurses in many locations, therefore; the environment is somewhat more responsive to the needs and desires of nursing programs in all institutions categories.

With respect to the dimension of organizational health, nursing programs in all institutional categories viewed their day-to-day functioning as successful. In examining the internal and external dimensions of organizational effectiveness, nursing programs in all institutional categories responded more favorably to the internal dimension. These similarities evidenced in the internal dimensions may be attributable to the fact that all the nursing programs studied adhere to NLN accreditation criteria. Given the turbulent environment of higher education institutions associated with variability in enrollment and funding, nursing programs in higher education institutions may find it increasingly important to look to other sources, particularly external sources, for support and continued viability.

In the examination of the internal and external dimension of organizational effectiveness by public and private classification, there is little difference between the classifications. This may be related to the idea that a career choice is made in selecting a nursing program, consequently, the availability of a nursing program is more important than the public or private classification. Additionally, nursing programs appear to be more similar in nature in comparison to differences that occur in other undergraduate
programs not unduly influenced by accreditation directives whether or not they are in public or private institutions.

The perceptions of the three organizational effectiveness dimensions were usually perceived as favorable by nursing programs in Specialized/Professional institutions. However, caution should be used in concluding that association with Specialized/Professional institutions is a most desirable status for nursing programs since there may be other considerations reflected by their responses that go beyond the scope of this study. In particular, the nursing programs in Specialized/Professional institutions are generally associated with Colleges of Medicine, therefore, concern for autonomy and control of professional education by the nursing programs may be a primary concern.

Although the reasons for the differences and similarities cannot be clearly identified from this study, some interesting possibilities are discussed relative to the differences and similarities.

**Research methodology**

The original three dimensions of organizational effectiveness were refined into five factors. This refinement, which led to a more detailed description of the dimensions, appears to have added to the usefulness of the framework and survey instrument.

The level of response from the population studied, can be interpreted as a keen interest in the topic.
Limitations

It must be noted that the instrument was used for a particular unit within higher education institutions, whereas Cameron's use of the instrument was at the institutional level. At the same time, it must be acknowledged that the survey instrument is not free of flaws. For example, in the instrument, the term organizational health is used both as a dimension and a variable. This may lead to some conceptual and interpretive confusion. In addition, items from the survey instrument associated with each of the dimensions varied in the level of specificity. For example, items from the organizational health dimension asked for perceptions related to level of trust, feedback, and flexibility in contrast to items from system openness and community interaction, which asked for perceptions related to autonomy, stability, and predictability of the environment. Similarly, some items appeared to allow variability in interpretation while other items minimized possible differences in interpretation.

Moreover, this study surveyed only one person in the institution; for example, surveying the chief executive officer of a college or university or a faculty member might yield different perceptions and conclusions. Objective data related to traditional indicators of financial health, such as budget and amount of research as well as specific numbers related to involvement in the community, such as specific number of faculty on boards and number of sponsored programs, were not collected from the responding institutions. Since this study described instead of attempted to identify causes for differences in organizational effectiveness, it did not attempt to predict or explain the causes for the differences that were described.
**Recommendations**

Several recommendations for examining organizational effectiveness of nursing programs emerge from the conclusions of the study. First, further study should be done to identify the correspondence between the perceptions of the respondents and specific data from the institution. Second, further consideration should be given to the collection of the perceptions of a variety of personnel, such as students, faculty, and various administrators at the institutions, and then the similarities and differences of their perceptions of organizational effectiveness of the nursing programs should be ascertained. Third, the items from Cameron’s other six dimensions of organizational effectiveness should be utilized for further study of this population and correlated with his findings for the purpose of further describing nursing programs. Fourth, further consideration should be given to refinement of the items included in Cameron’s instrument to control for variability in interpretation of items. Fifth, the nursing programs in specialized/professional institutions should be examined as a unique group of programs since they appear more different than similar when compared to nursing programs in the other institutional categories. Last, consideration should be given to further analysis of the data set to determine associations of organizational effectiveness that might be revealed through the examination of the governance structure, faculty unionization, number of programs offered, and amount of university administrative support available.

In conclusion, the description of the selected dimensions of organizational effectiveness indicated that, in the main, nursing programs are
doing well internally. However, further attention to the external aspects of organizational effectiveness may be needed if the nursing programs are to continue to be viable as well as successful.
Appendix A
Questionnaire
Baccalaureate Nursing Programs as Higher Education Organizations

Lucille Travis, R.N., M.S., CNA
1261 Cherrywood Ct.
Columbus, Ohio 43229
DIRECTIONS

IT IS IMPORTANT TO REMEMBER THAT WHILE COMPLETING THIS SURVEY, THE TERM NURSING PROGRAM REFERS TO YOUR UNDERGRADUATE BACCALAUREATE NURSING PROGRAM WHETHER A COLLEGE, SCHOOL OR DEPARTMENT LOCATED IN A HIGHER EDUCATION INSTITUTION.

PLEASE SELECT FROM WHICH PERSPECTIVE YOU ARE ANSWERING BY CIRCLING THE NUMBER LOCATED Beside THE CHOICES BELOW

1. College of nursing
2. School of nursing
3. Department of nursing
4. Other, if so please specify _______________

EACH QUESTION IS VITAL TO THE SUCCESS OF THE STUDY, THEREFORE ANSWERING EACH ONE IS VERY IMPORTANT.
SECTION A
TO WHAT EXTENT ARE THE FOLLOWING CHARACTERISTICS
TYPICAL OF THE UNDERGRADUATE PORTION OF YOUR NURSING
PROGRAM?

PLEASE MARK THE APPROPRIATE ALTERNATIVE IN THE BLANK
BESIDE THE QUESTION NUMBER USING THE SCALE
IMMEDIATELY BELOW.

<table>
<thead>
<tr>
<th>VERY TRUE</th>
<th>NEITHER</th>
<th>VERY UNTRUE, OR</th>
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<tbody>
<tr>
<td>HIGHLY TYPICAL</td>
<td>NOR</td>
<td>HIGHLY ATYPICAL</td>
</tr>
<tr>
<td>OF YOUR INSTITUTION</td>
<td>ATYPICAL</td>
<td>OF YOUR INSTITUTION</td>
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<tr>
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</tbody>
</table>

1. Your Nursing Program is highly responsive and adaptive to meeting the changing needs of the external university community or environment.
2. Your Nursing Program has a very high ability to obtain financial resources in order to provide a high quality educational program.
3. When hiring new faculty members, your Nursing Program can attract the leading people in the country in their respective fields to take a job here.
4. Your Nursing Program can attract the leading high school graduates in the country to attend.
5. Your Nursing Program has a very high ability to obtain the resources it needs to be effective.

SECTION B
TO WHAT EXTENT DOES YOUR UNDERGRADUATE NURSING
PROGRAM EMPHASIZE OR ENCOURAGE THE FOLLOWING?

PLEASE MARK THE APPROPRIATE ALTERNATIVE IN THE BLANK BESIDE THE QUESTION NUMBER USING THE SCALE IMMEDIATELY BELOW

| VERY HIGH DEGREE | MODERATE DEGREE | NO EMPHASIS OR |
| OF EMPHASIS OR | OF EMPHASIS OR | ENCOURAGEMENT HERE |
| ENCOURAGEMENT HERE | ENCOURAGEMENT HERE | HERE |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |

6. The engaging in professional activities outside the Nursing Program by faculty members and administrators.
7. Nursing Program-community or Nursing Program-environment relations.
SECTION C

PLEASE MARK THE APPROPRIATE ALTERNATIVE IN THE BLANK BESIDE THE QUESTION USING THE SCALE BELOW

<table>
<thead>
<tr>
<th>VERY LARGE NUMBER OR AMOUNT</th>
<th>A MODERATE NUMBER OR AMOUNT</th>
<th>NONE</th>
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</tbody>
</table>

8. How many faculty members and administrators at your Nursing Program would you say serve in the community in government, on boards or committees, as consultants, or in other capacities? (combine federal, state and local levels)

9. How many community oriented programs, workshops, projects, or activities would you estimate were sponsored by your Nursing Program last year?

10. How many faculty members in your Nursing Program would you say have national reputations in their respective nursing fields?

11. Nursing Programs may be rated on the basis of their relative "drawing power" in attracting top high school students. In relation to other Nursing Programs with which it directly competes, what proportion of the top students attend your Nursing Program rather than the competition?

SECTION D

PLEASE RATE THE RELATIVE IMPORTANCE THAT YOUR NURSING PROGRAM PLACES ON EACH OF THE FOLLOWING FACTORS.

PLEASE MARK THE APPROPRIATE ALTERNATIVE IN THE BLANK BESIDE THE QUESTION USING THE SCALE IMMEDIATELY BELOW

<table>
<thead>
<tr>
<th>EXTREMELY IMPORTANT</th>
<th>NOT AT ALL IMPORTANT</th>
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</table>

12. Productive Nursing Program-community or Nursing Program-environment relations.

13. The ability to acquire resources for the Nursing Program.

14. Productive and satisfying internal processes and practices in the Nursing Program.
### SECTION E

PLEASE RATE THE ENVIRONMENT OUTSIDE YOUR UNIVERSITY THAT INTERACTS WITH YOUR NURSING PROGRAM BY CIRCLING THE APPROPRIATE NUMBER ON THE SCALE IMMEDIATELY BELOW.

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</thead>
<tbody>
<tr>
<td>15. Allows autonomy</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>Imposes regulations</td>
</tr>
<tr>
<td>16. Unobtrusive, unimposing</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>Controlling, dominating</td>
</tr>
<tr>
<td>17. Stable, peaceful</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>Turbulent, changing</td>
</tr>
<tr>
<td>18. Predictable</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>Unpredictable</td>
</tr>
<tr>
<td>19. Accepting</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>Rejecting</td>
</tr>
<tr>
<td>20. Cooperative, supportive</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>Hostile, competitive</td>
</tr>
</tbody>
</table>

### SECTION F

EXTERNAL ENVIRONMENTS (OUTSIDE YOUR UNIVERSITY) CAN BE RATED ACCORDING TO THEIR RICHNESS OR LEANNESS. PLEASE RATE THE FOLLOWING RESOURCES IN YOUR NURSING PROGRAM’S ENVIRONMENT IN TERMS OF WHETHER THERE IS MORE THAN ENOUGH OF THE RESOURCE OR NOT NEARLY ENOUGH OF THE RESOURCE PRESENT IN THE ENVIRONMENT. PLEASE CIRCLE THE APPROPRIATE NUMBER ON THE SCALE BELOW.

<table>
<thead>
<tr>
<th></th>
<th>MORE THAN IS NEEDED (RICH)</th>
<th>ABOUT RIGHT</th>
<th>NOT NEARLY ENOUGH (LEAN)</th>
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</thead>
<tbody>
<tr>
<td>21. Prospective students</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>22. Prospective faculty members</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>23. Opportunities for professional development</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>24. Opportunities for community involvement</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>25. Grants and &quot;outside&quot; support</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
SECTION H

THIS SECTION ASKS YOU TO RATE YOUR PERCEPTIONS OF THE GENERAL DAY TO DAY FUNCTIONING OF THE UNDERGRADUATE PORTION OF THE OVERALL NURSING PROGRAM.

PLEASE RESPOND BY CIRCLING THE NUMBER THAT BEST REPRESENTS YOUR PERCEPTIONS OF EACH ITEM. IF YOU AGREE STRONGLY WITH ONE END OF THE SCALE, CIRCLE A NUMBER CLOSER TO THAT END OF THE SCALE. IF YOU FEEL NEUTRAL ABOUT THE ITEM, CIRCLE A NUMBER NEAR THE MIDDLE OF THE SCALE.

FOR EXAMPLE:

How is the weather in this town?

warm, bright, and sunny

1 2 3 4 5 6 7

cold, wet, and dismal

HOW DO YOU PERCEIVE THE FOLLOWING FOR YOUR UNDERGRADUATE NURSING PROGRAM:

26. Student faculty relationships.

mutual closeness, lots of informal interaction, mutual personal concern

1 2 3 4 5 6 7

no closeness, mostly instrumental relations, little informal interaction

27. Interdepartmental relations in the program.

lots of coordination, joint planning collaboration, no friction

1 2 3 4 5 6 7

no joint activity, conflict, lack of coordination and communication

28. General pattern of supervision and control.

respect for differences, personal freedom, individual autonomy

1 2 3 4 5 6 7

rigid control, strict supervision, pretense for conformity

29. Equity of treatment and rewards.

people treated fairly and rewarded equitably

1 2 3 4 5 6 7

favoritism and inequity present, unfair treatment exists

30. Recognition and rewards received for good work from superiors.

recognition received for good work rewarded for success

1 2 3 4 5 6 7

no rewards for good work, no one recognizes success

31. The amount of information or feedback you receive.

feel informed, “in the know” information is always available

1 2 3 4 5 6 7

feel isolated, “out of it”, information is never available
32. Type of communication that is typical.
open, authentic, personal, free 1 2 3 4 5 6 7 guarded, screened, cautious, formal

33. The general social environment.
cooperative, supportive, mutual concern for others, humane 1 2 3 4 5 6 7 competitive, no support, unsympathetic, "every man for himself"

34. The flexibility of the administration.
willing to change, adaptable, progressive, flexible 1 2 3 4 5 6 7 rigid, unwilling to change, stagnant, unyielding

35. General levels of trust among people here.
high trust, security, openness 1 2 3 4 5 6 7 high suspicion, fear, distrust, insecurity

36. Conflicts and friction in the program.
no friction or conflicts, friendly, collaborative 1 2 3 4 5 6 7 large amount of conflicts, disagreements, anxiety, friction

37. Resolution of disagreements or conflicts.
face to face, compromise, democratically; positive feelings result 1 2 3 4 5 6 7 imposition, avoidance dictum, suppression; bad feelings result

38. Use of the talents and expertise of faculty members and administrators.
competencies and talents used maximally; chances for fulfillment are present 1 2 3 4 5 6 7 competencies not used; no opportunities for growth, talents unused

39. Organizational health of the program.
college runs smoothly; healthy organization, productive internal functioning 1 2 3 4 5 6 7 college runs poorly, unhealthy organization, unproductive internal functioning

40. Long term planning and goal setting.
each activity directed activity, long term planning, continuous goal assessments 1 2 3 4 5 6 7 no goal directed activity, no planning, no goal assessments
SECTION H

PLEASE INDICATE TO WHAT EXTENT THE FOLLOWING STATEMENTS ARE TYPICAL OF THE ORGANIZATIONAL STRUCTURE OF YOUR NURSING PROGRAM.

PLEASE MARK THE APPROPRIATE RESPONSE IN THE BLANK BESIDE THE QUESTION NUMBER USING THE SCALE IMMEDIATELY BELOW

<table>
<thead>
<tr>
<th>VERY TRUE OR HIGHLY TYPICAL OF YOUR INSTITUTION</th>
<th>NEITHER TYPICAL NOR ATYPICAL</th>
<th>VERY UNTRUE, OR HIGHLY ATYPICAL OF YOUR INSTITUTION</th>
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</tbody>
</table>

41. All major decisions are made by top administrators and handed down by decree.

42. Joint faculty/administrator/student committees either don't exist or they have no power to affect policy and procedures.

43. Your Nursing Program always conducts its own independent search and hiring procedures for new faculty members.

44. Your Nursing Program always institutes new courses without having them approved through a central university committee.

45. There are Nursing Program policies governing hours worked, absences, required assignments, etc., for faculty members and administrators.

46. Standardized evaluation procedures are used regularly to determine salary and promotion.

47. Faculty members can totally determine the content and reading materials for their own courses.

48. Most people view your Nursing Program as having a special mission or role to perform.

49. There is a general sense that your Nursing Program possesses a unique identity.
SECTION I

PLEASE DESCRIBE THE UNIVERSITY ADMINISTRATION OF YOUR INSTITUTION AS OBJECTIVELY AND AS ACCURATELY AS YOU CAN BY CIRCLING THE APPROPRIATE NUMBER ON THE SCALE IMMEDIATELY BELOW.

50. Influences outside constituents 1 2 3 4 5 6 7 Not influential with outside constituencies

51. Controls internal processes 1 2 3 4 5 6 7 Unable to control internal processes

52. Progressive, innovative 1 2 3 4 5 6 7 Conservative, stable

53. Autonomous from outside influences 1 2 3 4 5 6 7 Controlled by outside influences

54. Acts 1 2 3 4 5 6 7 Does not act

55. Consults others 1 2 3 4 5 6 7 Unilaterally directs

56. Proactive 1 2 3 4 5 6 7 Reactive

57. Far-sighted, future-oriented 1 2 3 4 5 6 7 Short-sighted, now oriented

58. Does the university administration of your institution give more emphasis to internal (inside the university) affairs or to external (outside the university) affairs? (circle the appropriate number)

EXCLUSIVELY EMPHASIZES INTERNAL AFFAIRS 1 2 3 4 5 6 7 EXCLUSIVELY EMPHASIZES EXTERNAL AFFAIRS

SECTION J

USING THE SCALE BELOW, PLEASE RATE THE RELATIVE EMPHASIS GIVEN BY YOUR UNIVERSITY ADMINISTRATION TO EACH OF THE FOLLOWING UNIVERSITY RELATED FACTORS

A VERY HIGH DEGREE OF EMPHASIS  MODERATE EMPHASIS  NO EMPHASIS

(1) (2) (3) (4) (5) (6) (7)

Internal factors:

59. Finances and budgeting
60. Academics and scholarship
61. Legal matters
62. Students affairs

External factors:

63. Fund raising
64. Public service
65. Politics and public relations
DEMOGRAPHIC AND PERSONAL DATA SECTION

SELECT APPROPRIATE RESPONSE
BY CIRCLING THE NUMBER LOCATED
BESIDE THE QUESTION ANSWERS

1. Education - (Circle all that apply)
   1. Diploma
   2. Bachelor's degree in nursing
   3. Bachelor's degree in other area
   4. Master's degree in nursing
   5. Master's degree in other area
   6. Doctorate in nursing
   7. Doctorate in other area
   8. Other, if so please specify__________

2. Sex (Circle number)
   1. Female
   2. Male

3. Your present age:_____

4. Length of employment at your institution:_____years

5. Length of time in this administrative position
   _____years
   _____ If less than one year, number of months

PLEASE CIRCLE THE APPROPRIATE RESPONSE

YES   NO

6. Is there a faculty union organized on your campus
Thank you for your assistance.
Appendix B
First Cover Letter
February 28, 1989

Dean, College of Health & Science
University of Kansas
39th & Rainbow
Kansas City, KS 66103

Dear Dr. 

There have been a number of significant changes in the external factors affecting nursing programs. The decline in student applicants and educational subsidies are examples of these factors. However, the full impact of these changes on the operation of nursing programs is not known in institutions of higher education. The purpose of this study is to describe nursing programs according to selected external and internal factors as they relate to the identification of the strategies needed to successfully address changes in the larger environment. These strategies are important to help resolve the issues facing nursing programs as they plan for the 1990’s.

As the chief executive officer of your nursing program, I am asking you to participate in a study to provide information regarding characteristics and activities of your nursing program. A written summary of the study will be provided to you after the data have been compiled and analyzed. Information will be aggregated by types of institutions only, such as public and private, to assure anonymity of your response. The summary will provide more insight into the operation of your program and be useful in future organizational planning.

The survey will require approximately twenty minutes to complete. Please return the questionnaire using the enclosed stamped envelope by March 10.

I would be most happy to answer any questions that you may have regarding the survey. Please call or write. My telephone number is (614) 292-7447.

Thank you for your assistance.

Sincerely,

[Signature]

Lucille Lombardi Travis, R.N., M.S., CMA
Graduate Research Associate
Appendix C
Post Card Follow-up
March 8, 1989

Last week a questionnaire asking for perceptions about your baccalaureate nursing program as an higher education organization was mailed to you.

If you have already completed and returned the survey to me please accept my sincere thanks. If not, please do so as soon as possible. It is extremely important that your responses be included in the study if the results are to accurately identify strategies needed to successfully address issues facing nursing programs as they plan for the 1990s.

If by some chance you did not receive the questionnaire, or if it got misplaced, please call me (614-292-7447), and I will send another one in the mail to you today.

Sincerely,

Lucille Travis, R.N., M.S., CNA
Graduate Research Associate
Appendix D
Second Cover Letter
About four weeks ago I wrote to you asking for your perceptions about your baccalaureate nursing program as a higher education organization. As of today I have not yet received your completed questionnaire.

As the chief executive officer of your nursing program, you can appreciate the need to collect information about nursing programs in higher education institutions in order to help resolve the issues facing them as they plan for the 1990s.

As I stated in my first letter, a written summary of the study will be provided to you after the data have been compiled and analyzed. To assure anonymity of your response, the summary information will be aggregated by types of institutions only, such as public and private. The summary should be useful for your future organizational planning.

in the event that your questionnaire has been misplaced, I have enclosed a replacement.

Thank you for your cooperation with this project.

Cordially,

Lucille Lombardi Travis, R.N., M.S., CHA
Graduate Research Associate
Appendix E
Summary Letter to Respondents
Western Carolina University
202 Moore Hall
Cullowhee, NC 28723

Dear

Approximately six months ago you responded to my request to participate in a study about Baccalaureate Nursing Programs as Higher Education Organizations. The purpose of the study was to describe nursing programs according to selected external and internal factors as they relate to the identification of the strategies needed to successfully address changes in the larger environment of institutions of higher education. I appreciate, very much, your participation in this research by the completion of the questionnaire.

As promised, a written summary of the study is being provided to you. In addition, your specific institutional data is detailed below. These data were aggregated and analyzed by institutional type using AAUP designations.

The responses to the four external factors and the one internal factor of organizational effectiveness is presented below, using mean scores (1 through 7 representing the choices with one at the positive end of the scale). Additionally, the summary of means of all the four categories of institutions based on the five factors is also enclosed. You may want to examine your institutional data compared to your institutional type, and the aggregate scores.

- Procuring of Resources (external)
- Availability of Resources (external)
- Involvement in the community (external)
- Adaptiveness of the community (external)
- Day-to-Day functioning (internal)

Thank you for your assistance in this research endeavor. If you have any questions, please call me at 219-237-4571.

Sincerely,

Lucille Travis, R.N., Ph.D., CHA
Coordinator, Baccalaureate Nursing Program
Indiana University, South Bend

Enclosures (2)
Appendix F
Population of Institutions by AAUP Category
Doctoral

Auburn University
University of Alabama, Capstone College of Nursing
University of Alabama in Birmingham
Arizona State University
University of Arizona
Loma Linda University
UCLA Center for the Health Sciences
University of Southern California
University of Northern Colorado
University of Connecticut
Yale University
University of Delaware
Catholic University of American
Georgetown University
Howard University
Florida State University
University of Florida, J.H. Miller Health Center
University of Miami
University of South Florida
Georgia State University
Emory University, Nell Hodgson Woodruff School
University of Hawaii
Loyola University, Marcella Nehoff School of Nursing
Northern Illinois University
Northwestern University Center for Nursing
University of Illinois
Ball State University
Indiana State University
Indiana University
Purdue University
University of Iowa
University of Kansas, College of Health & Science
University of Louisville
University of Kentucky
Louisiana State University Medical Center
John Hopkins University
University of Maryland
Boston College
Northeastern University
University of Massachusetts
Andrews University
Michigan State University
University of Michigan
Wayne State University
University of Minnesota
University of Southern Mississippi
St Louis University
University of Missouri-Columbia
Montana State University
University of Nevada-Orvis School
University of New Hampshire
Rutgers-The State University
University of New Mexico
Adelphi University
Columbia University
New York University
SUNY at Binghamton
SUNY at Buffalo
SUNY at Stony Brook
Syracuse University
University of Rochester
University of the State of New York
University of North Carolina at Chapel Hill
University of North Carolina at Greensboro
University of North Dakota
Bowling Green State University, Medical College of Ohio
Case Western Reserve University, F.P. Bolton School
Kent State University
Ohio State University
University of Akron
University of Cincinnati, Collge of Nursing & Health
University of Toledo
Pennsylvania State University
University of Pittsburgh
University of Pennsylvania
University of Rhode Island
Clemson University
University of South Carolina
University of Tennessee at Knoxville
Baylor University
Texas Christian University, Harris College of Nursing
Texas Woman's University
University of Texas at Arlington
University of Texas at Austin
Brigham Young University
University of Vermont Department of Professional Nursing
University of Virginia
Virginia Commonwealth University
University of Washington
West Virginia University
Marquette University
University of Wisconsin, Madison
University of Wisconsin, Milwaukee
Comprehensive

Auburn University of Montgomery
Samford University
Jacksonville State University
Troy State University
Tuskegee University
University of Alabama in Huntsville
University of North Alabama
University of South Alabama
University of Alabama, Anchorage
Northern Arizona University
Arkansas State University
Harding University
University of Arkansas for Medical Sciences
University of Central Arkansas
Azusa Pacific University
Biola University
California State College at Bakersfield
California State University at Long Beach
California State University at Chico
California State University at Fresno
California State University at Hayward
California State University at Los Angeles
California State University Sacramento
Humboldt State University
San Diego State University
San Francisco State University
San Jose State University
University of San Francisco
University of Colorado
University of Southern Colorado
Fairfield University
Southern Connecticut State University
University of Bridgeport
Western Connecticut State University
Delaware State College
University of DC
Barry University
Florida Agric & Mech University
Florida Atlantic University
Florida International University
University of Central Florida
University of North Florida
Albany State College
Columbus College
Georgia College
Georgia Southern College
Valdosta State College
Boise State University
Idaho State University
Bradley University
Chicago State University
De Paul University
Lewis University
Olivet Nazarene University
Southern Illinois University
University of Evansville
Valparaiso University
Fort Hays State University
Pittsburg State University
Washburn University of Topeka
Wichita State University
Eastern Kentucky University
Murray State University
McNeese State University
Micholls State University
Northeast Louisiana University
Northwestern State University of Louisiana
Southeastern Louisiana University
University of Southwestern Louisiana
University of Southern Maine
Fitchburg State College
Salem State College, South Campus
SE Massachusetts University
Simmons College
University of Lowell
University of Massachusetts, Boston
Worcester State College
Eastern Michigan University
Grand Valley State College
Modonna College
Northern Michigan University
Oakland University
Saginaw Valley State College
Mankato State University
Winona State University
Delta State University
Central Missouri State University
Northeast Missouri State University
Southeast Missouri State University
Creighton University
Kearney State College
University of Nebraska
Fairleigh Dickinson University
Rutgers-The State University, Camden Campus
Seton Hall University
Trenton State College
Alfred University
City College School of Nursing of CUNY
College of New Rochelle
Herbert H. Lehman College of CUNY
Hunter College
Long Island University
Niagara University
Pace University
Russell Sage College
SUNY at Brockport
SUNY at Plattsburgh
Wagner College
East Carolina University
North Carolina Agric & Tech State University
North Carolina Central University
University of North Carolina at Charlotte
Western Carolina University
Cleveland State University
Wright State University
Youngstown State University
Central State University
Northwestern Oklahoma State University
Oklahoma City University
Oral Roberts University
Southwestern Oklahoma State University
University of Tulsa
University of Portland
Bloomsburg University
Duquesne University
Edinboro University of Pennsylvania
Indiana University of Pennsylvania
University of Scranton
Villanova University
Widener University
Wilkes College
Rhode Island College
Salve Regina College
South Dakota State University
Austin Peay State University
East Tennessee State University
Tennessee State University
Tennessee Technological University
University of Tennessee at Chattanooga
Abilene Inter Collegiate School
Lamar University
Prairie View A & M University
Stephen Austin State University
University of Texas, El Paso
West Texas State University
Radford University
George Mason University
Hampton University
James Madison University
Old Dominion University
Intercollegiate Center for Nursing Education
Pacific Lutheran University
Seattle Pacific University
Seattle University
Marshall University
University of Wisconsin, Eau Claire
University of Wisconsin, Oshkosh

Baccalaureate

Birmingham Southern College
Mobile College
Grand Canyon College
Arkansas Tech University
Henderson State University
University of Arkansas at Pine Bluff
Mt St Mary's College
Point Loma Nazarene
Loretto Heights College
Saint Joseph College
Armstrong State College
Brenau Hall Nursing School
Aurora University
Elmhursaint College
Illinois Wesleyan University
MacMurray College
Millikin University
North Park College
St Xavier College
Trinity Christian College
Depauw University
Goshen College
Marion College
St Mary's College
Briar Cliff College
Clarke College
Coe College
Graceland College
Grand View College
Iowa Wesleyan College
Luther College
Marycrest College
Morningside College
Mount Mercy College
Bethel College
Marymount College
Mid-American Nazarene College
St Mary of the Plains College
Bellarmine College
Berea College
Spalding University
Thomas More College
Dillard University
Louisiana College
Saint Joseph's College
Columbia Union College
Coppin State College
Salisbury State College
Towson State University
American International College
College of Our Lady of the Elms
Curry College
Hope College
Lake Superior State University
Mercy College of Detroit
Nazareth College in Kalamazoo
Bethel College
College of Saint Teresa
College of Saint Catherine
College of Saint Scholastica
College of Saint Benedict
Gustavus Adolphus College
St Olaf College
Alcorn State University
Mississippi College
Mississippi University for Women
William Carey College
Avila College
Maryville College
William Jewell College
Carroll College
Midland College
Union College in Lincoln
Colby-Sawyer College
St Anselm College
Bloomfield College
William Paterson College
College of Mt Saint Vincent
D'Youville College
Dominican College of Blauvelt
Hartwick College
Keuka College
Molloy College
Mt Saint Mary College
Roberts Wesleyan College
Utica College-Syracuse University
Atlantic Christian College
Lenoir Rhyne college
Queen's College
Winston-Salem State University
Jamestown College
Minot State College
University of Mary
Capital University
Cedarville College
College of Mt Saint Joseph on the Ohio
Franciscan University of Steubenville
Otterbein University
Ohio Wesleyan University
Ursuline College
EA Saint Central University
Langston University
Northwest State University
Oklahoma Baptist University
Southern Nazarene University
Albright College
Allentown College of Saint Francis De Sales
Carlow College
Cedar Crest College
College Misericordia
EA Saint Stroudsburg University
Holy Family College
Lyccomig College
Messiah College
Neumann College
St Francis college
Temple University
Villa Maria College
West Chester University
University of SC Spartanburg
Augustana College
Mount Marty College
Dallas Baptist University
Houston Baptist University
Incarnate Word College
University of Mary Hardin-Baylor School of Nursing
University of Texas at Tyler
Westminster College-St Mark's
Eastern Mennonite College
Walla Walla School of Nursing
Alderson-Broaddus College
West Virginia Wesleyan College
Wheeling College
Alverno College
Edgewood College
Marian College of Fond Du Lac
Viterbo College

Specialized/Professional

Medical College of Georgia
Rush University
Husson College Eastern ME Medical Center
University of Mississippi Medical Center
SUNY-Health Science Center
University of Oklahoma-Health Science Center
Oregon Health Sciences University
Thomas Jefferson University, College Allied Health Science
Medical University of South Carolina
University of Tennessee
University of Texas Medical Branch, Galveston
University of Texas, Health Science Center, San Antonio
University of Texas, Houston
University of Utah
Bibliography


BSN enrollments are falling at a faster rate; AACN finds biggest losses in generic students. (1987) *American Journal of Nursing, 87*, 529-530.


Cameron, K. S. (1987). Improving academic quality and effectiveness. In M. Peterson & L. Mets (Eds.), *Key resources on higher education governance, management, and leadership.* San Francisco: Jossey-Bass.


DiMeo, E. & Reed, S. (1984). A way to share clinical placements for students. Nursing and Health Care, 5, 253-255


Institute of Medicine. *Nursing and nursing education: Public policies and private actions*. Washington, DC: Committee on Nursing and Nursing Education. (1983)


Kirkpatrick, M.K., & Thiele, R. (1987). Faculty workload measures: The time is right. Journal of Nursing Education, 26, 84-86.


McCracken, J.D. (1987, Spring). *Agricultural Education 886-Research Design: Class outline*. (Available from J.D. McCracken, The Ohio State University, Columbus)


Sullivan, M. (1985). Faculty evaluation: Our shackle or parachute?.. *Nursing and Health Care, 6*, 447-449.


