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Domains of organizational effectiveness of gerontology centers in higher education

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**DOMAINS OF ORGANIZATIONAL EFFECTIVENESS OF GERONTOLOGY
CENTERS IN HIGHER EDUCATION**

by

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**Key Words: centers, institutes, higher education, organizational
effectiveness, gerontology**

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ABSTRACT

This is an exploratory study that focuses on organizational effectiveness of gerontology centers and institutes at American universities. The study was modeled after studies of organizational effectiveness in higher education by Kim Cameron of Brigham Young University. The study identifies six domains of effectiveness that are important to gerontology centers and the structural and functional models and characteristics of gerontology centers that may predict the domain in which it is effective. The target population of the study was dominant coalition members of 87 gerontology centers, namely, administrators and faculty members who have the most influence on policy, direction, and performance. Gerontology center directors were asked to fill out a two-part questionnaire that included structural and functional characteristics of their center (Part A) and rankings of organizational effectiveness (Part B). Part B of the questionnaire was also completed by faculty and administrators associated with each center. A factor analysis was used on the rankings of effectiveness (Part B) to determine domains of effectiveness. A median analysis was used to determine which centers were effective in each domain. Finally, single and multiple regression analysis was used to determine the structural and functional models and significant characteristics of centers that may predict the domain of effectiveness. This study identified six domains of organizational effectiveness of gerontology centers: *non-academic and community openness*, *career goal satisfaction of students, staff and faculty*, *resource acquisition*, *organizational health*, *faculty and staff job satisfaction*, and *quality faculty*. The predictor models for each domain include: *non-academic*--demographics, organizational goals, and organizational mission; *career goal satisfaction*--financial indicators; *resource acquisition*--organizational structure and financial indicators; *organizational health*--none; *faculty and staff job satisfaction*--organizational goals and organizational mission; and *quality faculty*--organizational goals and organizational activities. Description of centers effective in each domain, based on the significant predictor characteristics, are included.

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CHAPTER 1 INTRODUCTION

Gerontology, as an academic discipline, has a fairly short history. Although courses in aging could be found at colleges and universities as early as 1957, degrees, minors and certificate programs were not founded until after the passage of the Older American's Act in 1965. Since the traditional academic disciplines did not always welcome gerontology as a legitimate discipline, gerontology programs were often located within centers or institutes and focused on multi-disciplinary studies of normal aging (Maddox, 1988). The Duke University Center for the Study of Aging and Human Development was one of the earliest gerontology centers. There were 410 gerontology programs in 1985, but the number increased to 692 in 1992 (Peterson, Wendt & Douglass, 1994).

Gerontology/geriatric programs are most frequently found at a large institution and at institutions offering graduate level instruction. They are least frequently found on small campuses and at those offering only an associate or bachelor's degree (Peterson, Wendt & Douglass, 1994). These programs offer a range of degrees, certifications and other award designations. The largest percentage of programs serve bachelors level students (33.4%), followed by masters (25.1%), doctorate/post-doctorate (18%), combined (13%), associate (8%), and other (3%).

Gerontology centers tend to be independent of academic departments. Half (50%) of the gerontology administrators surveyed in 1992 (Peterson, Wended & Douglass, 1994) reported to a president, vice president or dean, and the title most often held by gerontology program administrators was director (39%). The financial resources of these centers are modest; only 50% of programs report having a budget to administer.

Gerontology centers are multi-disciplinary in nature; bringing together three major discipline areas; sociology, biology, and psychology. Many are

connected with disciplines in the health sciences such as nursing, medicine, dentistry, social work and allied health. Peterson divides programs into four program orientations: liberal arts, professional, scientific, and a combination of two orientations.

Based upon an unpublished survey of the literature on gerontology centers by Nichols (1995), the functions most often mentioned in the literature about gerontology centers are curriculum and instruction and continuing education/professional development. To a lesser degree, gerontology centers are involved in research. Research at gerontology centers covers a broad range of topics and disciplines including: medicine, biology, psychology, health issues, public policy issues, social relationships in later life, and gains and deficits of growing old,

The constituents of gerontology centers include university students, administrators and faculty members from a variety of academic disciplines upon which the center impacts. Gerontology centers differ from other academic units in the type of constituents which unlike other centers includes the community outside of the institution such as state agencies, community agencies, elderly individuals and groups, and businesses.

Future challenges for gerontology centers in higher education include 1) maintaining an interdisciplinary balance in training programs, 2) developing the next generation of scholars and clinicians, 3) translating research into practice, 4) encouraging the development of disciplines which create a greater awareness of the diversity of social relationships within later life, e.g., anthropological gerontology and corporate gerontology, and 5) creating an international network of gerontological courses with common principles of curriculum design (Maddox, 1988; Mullins, 1988).

Given the challenges facing the growing aging population, and therefore facing gerontology centers, it is important to evaluate their effectiveness. This study attempts to look at organizational effectiveness in gerontology centers in higher education. There are many ways to evaluate organizational

effectiveness, and the literature identifies four major approaches. These include the *goal approach*, the *systems approach*, the *process approach*, and the *ecological or participant satisfaction* approach. The *goal approach* defines organizational effectiveness as the ability of an organization to achieve its goals. Advocates of the goal approach include Georgopolous and Tannenbaum (1957); Etzioni (1964); Price (1972); Campbell (1977); and Scott (1977). The *system resource* model defines effectiveness as the organization's ability to secure an advantageous bargaining position in its environment, and to capitalize on that position to acquire scarce and valued resources (Hoy & Miskel, 1991). The *process approach* equates organizational effectiveness with internal organizational health, efficiency, and procedures, and is advocated by Argyris (1964), Bennis (1966), and Likert (1967), Steers (1977), Pfeffer and Salancik (1977), Beckhard (1969) (organizational development), Bennis (1966) (organizational health), and Nadler and Tushman (1980). The *ecological or participant satisfaction* model defines organizational effectiveness by the extent to which constituents of the organization are satisfied and their needs and expectations are being met. Theorists who have studied this approach include Connolly (1980) (constituency satisfaction); Keeled (1980); Pfeiffer and Sayanci, (1978) (strategic constituencies) and Miles and Cameron (1982); Zammuto, (1982) (legitimacy).

There are problems with taking any of these approaches to the exclusion of any of the others. Integrated models take the position that all four of these approaches are important for measuring effectiveness. Examples of integrated model approaches are Parsons (1960); Goodman & Pens (1977); Steers (1975); Campbell (1977); Cameron (1978; 1981, a & b, 1983). An integrated model is used in this study, namely the integrated approach taken by Cameron in his 1978 and 1981 studies of organizational effectiveness in institutions of higher education. This approach looks at the effectiveness of goal achievement, resource acquisition, organizational processes, and constituent satisfaction, all through the perceptions of administrative personnel and associated faculty.

This exploratory study focuses on characteristics of gerontology institutes and centers at American universities and colleges and organizational effectiveness. It identifies domains of effectiveness that are important to gerontology centers, and determines if certain characteristics of gerontology institutes and centers can explain differences in organizational effectiveness.

A. Statement of the Problem and Research Questions

Organizational effectiveness in gerontology centers and institutes in American universities and colleges has not been systematically studied. This exploratory study focuses on characteristics organizational effectiveness of gerontology institutes and centers at American universities and colleges. This study determines characteristics of gerontology institutes and centers that can explain differences in organizational effectiveness. Since this study is exploratory, no hypotheses are offered.

Research Questions

1. What are the domains of organizational effectiveness of gerontology centers?
2. What are the structural and functional models (i.e., organizational/external environment, strategic emphasis, organizational goal preferences, financial indicators, demographics) which may predict the domain in which a gerontology center will be effective?
3. What are the specific characteristics of gerontology centers that may predict the domain in which a gerontology center will be effective?

B. Scope of the Study

1. Limitations

a. This study targets dominant coalition members of gerontology centers, namely, administrators and faculty members who have the most influence on policy, direction, and performance at all (96) gerontology centers and institutes listed in the 1992 National Directory of Gerontology Programs in Gerontology and Geriatrics which is produced by the Association of Gerontology in Higher Education.

b. This study focuses on the organizational level of gerontology centers. Center directors at all 96 institutes and centers were sent and asked to complete both Part A (characteristics of centers) and Part B (perceptions of effectiveness) of the questionnaire (Appendix I). In addition to completing the questionnaire, each director was asked to supply names of administrators/faculty members working for or associated with the center, under the following categories: 1) central administrators with responsibility for the center, 2) project or program administrators or directors, 3) directors of subunits, and 4) faculty members involved in planning and implementing for the center. These individuals were sent and asked to complete Part B of the questionnaire which was designed to probe perceptions of organizational effectiveness.

c. This study employed a quantitative analysis of data, using three statistical procedures: factor analysis, median analysis, and regression analysis.

d. The names of the centers which fall under each of the domains of organizational effectiveness are not identified to protect the privacy of the institutions who agreed to participate.

2. Delimitations

a. This is an exploratory study which identifies areas of organizational effectiveness in gerontology centers. Further research will be required to examine these domains in depth.

b. This study is based on the perceptions of administrators and faculty involved in gerontology centers, not on quantifiable data such as enrollments, financial information, and resources.

c. Directors selected the other administrators and faculty who responded to the organizational effectiveness rating assessment. These individuals do not represent a random sample of all possible administrators and faculty members.

C. Significance of the Study

1. Contribution to the literature on organizational effectiveness in higher education.

Cameron (1978) constructed nine dimensions of organizational effectiveness in institutions of higher education which are: student educational satisfaction; student academic development; student career development; student personal development; faculty and administrator employment satisfaction; professional development and quality of the faculty; system openness and community interaction; and ability to acquire resources and organizational health. In a subsequent study, Cameron (1981) combined these nine dimensions into four domains of organizational effectiveness in colleges and universities. Those domains are *external adaptation*, which deals with student career development, system openness, and community interaction; *morale*, which is concerned with student educational satisfaction, administrator satisfaction, and organizational health; *academic orientation*, which deals with student academic development, professional development, quality of faculty, and ability to acquire resources; and *extracurricular*, which deals only with student personal development. These domains were identified by a study (Cameron, 1978), of administrators and faculty members at colleges and universities in the northeast United States with a wide variety of characteristics.

Other studies have expanded upon the ideas of Kim Cameron with respect to organizational effectiveness in higher education. One study, (Smart & Hamm, 1993) applied Cameron's criteria to community colleges and found that organizational effectiveness differed according to the mission of the college. Two studies (Lysons, 1993 and Lysons & Hatherly, 1992) applied Cameron's criteria to higher education institutions in Australia and the United Kingdom.

This proposed study adds to the literature on organizational effectiveness in colleges and universities because it studies organizational effectiveness of institutes and centers, units within colleges and universities which combine some of the characteristics of academic departments, as well as some

characteristics of non-academic administrative units. The domains of effectiveness may or may not be the same as the ones proposed by Cameron and others for colleges and universities.

2. Contribution to the literature on centers and institutes in higher education.

Most of the literature on institutes and centers in higher education was written in the early 1970s by a handful of authors (Ikenberry, 1970; Ikenberry & Friedman, 1972; Friedman, 1977; Totman, 1976). This literature describes research institutes and centers which mushroomed in the 1960s. The 1960s was called the golden age for institutes and centers (Friedman, 1977), and the studies of those centers reflected a need to examine their place on American campuses. In the 1970s, a number of centers and institutes was established around current issues of the day and their constituencies: women's studies; African American or black studies; regional studies; and gerontology. These institutes and centers have not been studied in any significant way, thus far. They may differ significantly from the centers and institutes of the 1960s, because their mission is more than just research. In fact, an unpublished study by Nichols (1995) of literature describing women studies, African American studies, management studies, and gerontological studies, found that this type of center emphasizes teaching over research. One might hypothesize that organizational effectiveness in these centers would be defined differently than in a research center.

The literature on centers and institutes is mostly descriptive. Characteristics of institutes are described and a classification of institutes and centers in higher education has been proposed by Ikenberry (1970) and Ikenberry and Friedman (1972). Ikenberry and Friedman's classifications of research institutes and centers include standard, adaptive, and shadow units. Standard centers have sufficient resources to meet their goals and objectives, employ permanent professional staff, have adequate equipment, and occupy

permanent space. They are also called "complete bureaucracies" (Norman, 1971). Adaptive institutes, on the other hand, are created in response to government or foundation funding. They are continually undergoing change, redefining their goals, securing and releasing staff, and initiating and terminating projects. They have a reasonably strong hierarchical management arrangement and maintain a nucleus of faculty members who have ties to the institute. The director determines the activities in response to the funding agency's directives. An adaptive institute has some office space, as well as basic equipment, but often uses equipment belonging to other departments. Most of the professional personnel are not housed at the center. These units are also called "truncated bureaucracies." Shadow institutes have no staff, no space, no budget, and often no visible accomplishments. However, they do have a designated director. These may be called "nucleated bureaucracies," that is, the organization is assembled on demand or on an ad hoc basis (Norman, 1971).

This study adds to the literature on institutes and centers in several ways: 1) very little has been written in the past 20 years about institutes and centers; 2) centers and institutes have been described and classified, but organizational effectiveness has not been evaluated or addressed; and 3) gerontology centers represent a different kind of center than the ones described in the literature of the 1970s, because their primary mission is teaching-related rather than research, thus they are deserving of study.

3. Contribution to the literature on gerontology centers and institutes.

Organizational effectiveness in gerontology centers has not yet been explored. Peterson, et. al. (1991) observed successfulness factors of 21 gerontology programs at 10 university and colleges. Successfulness, in Peterson's (1991) study, was defined in terms of longevity and institutionalization. Four hypotheses resulted from Peterson's (1991) study concerning stability of gerontology programs and its relationship to: 1) its

placement in the institution; 2) its ability to locate and secure funding; 3) the extent to which the program has influence over the instructional offerings and its faculty is involved in instruction; and 4) the institutionalization of the program, defined as the ability of the program to continue after a dominant leader withdraws. Other studies of individual gerontology programs describe a program's accomplishments based upon goal outcomes. But organizations often are successful in areas outside of their stated goals, and in addition, goals can be low, harmful or misplaced.

This study contributes to the literature on gerontology centers and institutes by studying organizational effectiveness across the whole population of gerontology centers and institutes in the United States. It draws upon the Peterson, et. al. (1991) study by looking at how characteristics of gerontology centers and institutes explain the domain of organizational effectiveness.

D. DEFINITION OF TERMS

1. *Centers in higher education*

Centers within higher education are administrative units with the functions of coordination, administration, and conduct of programmatic research, education, and service. They may be independent units or may relate administratively to a college or academic department.

2. *Gerontology*

The study of aging: aging processes, social issues of aging, human development, cognition, adult education, public policy and aging, etc.

3. *Gerontology centers*

Centers within institutions of higher education which focus on the study of aging and all of the issues related to older adults. Their function includes research, academic programming, adult and continuing education, and service to elders.

4. *Organizational effectiveness*

The ability of an organization to achieve its goals, obtain resources, function internally and with units in its environment, and satisfy its constituents.

CHAPTER 2

REVIEW OF THE LITERATURE

The review of related literature discusses: 1) organizational configuration of institutions of higher education, 2) characteristics of centers and institutes within higher education, 3) gerontology centers and institutes, and 4) organizational effectiveness.

A. Organizational Configuration of Institutions of Higher Education

1. *Organizational Structure Theory*

Institutions of higher learning can be described as professional bureaucracies (Mintzberg, 1979). They are bureaucracies because they contain most of the following elements in Weber's 1947 definition: division of labor and specialization, impersonal orientation, hierarchy of authority, rules and regulations, career orientation, efficiency, and ideal type (Weber, 1947). They are professional bureaucracies because they permit both decentralization and standardization and because they rely on the expertise and skills of their professionals to operate effectively (Hoy & Miskel, 1991). Examples of the need for standardization in the structure of universities are 1) students must meet the same standards for graduation as comparable schools, 2) standards must be met for professional training, 3) students must be moved through the process within a certain time period, and 4) financial aid requirements must be adhered to. On the other hand, decentralization also exists in institutions of higher learning because faculty members control classroom activities, their own professional activities, and many aspects of curriculum design. In addition, outside organizations such as academic associations, state and community groups, and funding agencies also have a lot to say about what goes on within the institution.

The concept of professional bureaucracy helps, in part, to explain the emergence of centers. Early in the history of centers at universities, centers

were created by central administrators, but many of those which were created from 1960-1970 were initiated by faculty members, department chairs, and deans (Norman, 1971). Professional bureaucracies allow faculty members to branch out on their own and create new units which will enhance their individual and professional needs, apart from administrative initiation.

Another organizational structure theory which helps to explain the existence of centers and institutes on university campuses is loose-coupling theory. Institutes of higher education are often described as loosely coupled structures because organizationally they have ambiguous goals, unclear technologies, fluid participation, uncoordinated activities, loosely connected structural elements and a structure that will have little effect over outcomes (Hoy & Miskel, 1991). Loose coupling theorists (Weick, 1976; Meyer, 1978; Orton & Weick, 1990; Meyer & Rowan, 1978) focus on the disconnection of behavior and outcomes in organizations. Subsystems in organizations, such as universities, are tied loosely together, rather than through tight, bureaucratic linkages. Coupled events are responsive and each event preserves its own identity as well as separateness (Hoy & Miskel, 1991). Centers and institutes frequently operate within the institution with little or no connection to academic departments. Academic departments usually have little or no control over how the work is done at the centers or even who is doing the work. Even though centers are often funded because they promise collaboration and interdisciplinary work, the reality is that collaboration and/or interdisciplinary work is rarely achieved at centers (Friedman, 1977; Stahler, 1994)

2. *Social Systems Theory*

In order to understand how centers and institutes relate to other units in higher education, it is necessary to discuss social systems theory. A university or college, of which centers and institutes are a relatively new part, is an open social system. A social system, according to social theorists (Abott, 1965; Getzels & Guba, 1957; Leavitt, Dill & Eyring, 1973; Lipham, 1988; Scott, 1981,

1987; Nadler & Tuchman, 1989; Hoy & Miskel, 1991; Etzioni, 1964; Olsen, 1968), is a bounded set of elements (i.e., subunits, subsystems, activities) which interact and form a single activity which has a distinctive total unity beyond its component parts (Hoy & Miskel, 1991). Everything outside of this single activity is called the environment. In an open social system, there is constant feedback between the environment and the social system, and open systems incorporate aspects of the environment, but are distinguished from the environment by a clearly defined boundary.

Getzel and Guba, 1957, developed a social system model which included two important elements: institutional or bureaucratic expectations (roles and expectations, and individual or work motives (personalities and needs). They said that within an open social system these two elements work together to affect the products or outcomes of the system. Organizations, such as universities and colleges, define through social processes, the roles they want people to play. These definitions include position and status, appropriate behavior, mandatory expectations, and flexible expectation. In academic life, professorial positions carry a certain status based upon rank, they are expected to behave in a certain professional way and their behavior is formally defined by such tenets as "academic freedom." Professors are expected to show up for class, serve on committees, publish in disciplinary journals, and advise students. The details of these expectations are flexible and dependent on the dynamics of the academic department.

Getzel and Guba, 1957, maintained that in an open social system it is not enough to look at the institutional element, but one must also consider the individual element. Individuals occupy the positions in the organization, and to a large extent determine how the institutional roles will be played out. Individuals bring their own personalities, motivation, need for achievement, security, acceptance, and perception of the environment.

A third element has been added to the social system model, which is the work group (Getzels, Lipham, & Campbell, 1968; Leavitt, 1965; Nadler &

Tuchman, 1989). The work group is the result of the combination of the individual element and the institutional element. It contains informal norms and formal expectations. Academic departments or disciplines are examples of work groups in the university setting.

Finally, the open social system interacts with its environment in the form a continuous flow of feedback. The environment inputs resources, values, technology, history, community, state, and national demands (Hoy & Miskel, 1991), and evaluates the outputs of the social system (i.e., adaptation, goal achievement, integration, and latency) while again imputing information, ideas and demands into the system. To a large extent, centers and institutes have resulted from input from the environment.

3. Social systems theory and the impetus to create centers and institutes in higher education

Initially colleges included few subunits or subsystems. Early college students were taught by a master and tutors. The master taught the basic curriculum which consisted of theology, rhetoric, and mathematics. As colleges expanded and universities developed, the curriculum grew to include subjects that were once part of the "extra-curriculum," and academic departments arose. This led to the professionalization of the professorship and development of academic disciplines as we know them today. Academic departments remain the cornerstones of university life and the chief academic subsystems within the university. Professors identify with their academic discipline, and tenure and promotion are dependent on the professor's ability to publish in professional journals created by the discipline and to rise within professional networks. Other subsystems within the university, which became necessary as colleges and universities expanded, include administrative subsystems and student-service subsystems. In many ways, centers and institutes bridge the gap between administrative and academic subsystems.

Libraries, observatories and museums may be considered the oldest university centers and institutes because they were the earlier university units established outside of the traditional academic departments. The Harvard Observatory, created in 1844, was the largest observatory of the time (Geiger, 1990). By 1900 it had five faculty members and 40 assistants. The Harvard Observatory was funded by public subscription, while many of the early observatories and museums were funded by private gifts which became sustaining endowments. Most writers agree, however, that the earliest known centers and institutes were the agriculture experimental stations established at land-grant universities in late 1800's (Ikenberry & Friedman, 1972). Agricultural experimental stations came about as a result of the Morrill Act of 1862 which made available land grants to the States that funded universities that were dedicated to the scientific study of agriculture and mechanics. Many of these land-grant universities have become major centers of research, housing a host of institutes and centers.

Before the Morrill Act of 1862, the Hatch Act of 1887, and the "Wisconsin Idea," colleges and universities saw themselves as responsible only for teaching the basic liberal arts or classic curriculum. After these events, universities began to emphasize research and public service. Land-grant universities required research and public service, along with instruction, as part of a professor's responsibilities. This change came as result of input from the university environment. Research and public service, up until this point, did not fit within the framework of an academic department. Gradually, academic departments began to embrace research and social service as part of their function, but only within the domains of its discipline. In other words, research was seen as a way to develop the discipline, and public service was defined as service to the discipline (e.g., committee assignments, book reviews, tenure and promotion activities).

Programmatic research, however, which was funded by foundations, industry and government agencies, and which often required interdisciplinary

collaboration, had to be carried out under a different auspice than the academic department. Programmatic research is research which is intended to further the particular programs of the sponsoring agency (Geiger, 1990). Hence, in the language of social systems theory, there evolved a need for a new work group within the university system which defined roles of academics in a different way.

Research centers and institutes began to appear between World War I and World War II and were funded by donations from large philanthropic foundations and industry. Massachusetts Institute of Technology and the University of Michigan benefitted greatly from money from industry at this time. MIT's Research Laboratory in Applied Chemistry was established in the early 1900's. Before WWII, institutes and centers were not perceived to be a threat to academic departments or to administration, as they would become after WWII, because so few researchers were involved and research centers were not seen as a significant departure from the academic department.

University centers began to increase after WWII due to input from the environment. This input was the need for new technologies. After WWII, during the decade of 1940-1950, the U.S. government began its first significant support of research in the areas of defense and health (Ikenberry and Friedman, 1972). Between 1940 and 1950, the total expenditures for research by the federal government grew to \$222 million, and about 117 research institutes and centers were created. This was largely due to the emergence of new technologies such as atomic energy, radar, and jet propulsion. Federal legislation was the impetus for establishing some institutes and centers such as the water research centers at each of the 50 land-grant universities. While in WWI, the government enlisted university scientists into the military and then stationed them at laboratories to conduct research, in WWII, the government contracted with universities to conduct war research (Geiger, 1990). Federally Funded Research Development Centers (FFRDCs) evolved directly out of wartime arrangements. Universities held the contracts to manage these large laboratories, but the government paid the costs.

Even with new external funding, the growth in the number of institutes and centers grew comparatively slow until the launching of Sputnik in October 1957 (Friedman, 1977, Geiger, 1990). The launching of Sputnik made Americans realize that the United States was under-investing in basic scientific research and education. University research and development rose 371% from 1958 to 1968 (Geiger, 1990) due to increased federal funding of basic research. This was however, a change from the previous funding of programmatic research for wartime projects. Research centers and institutes proliferated during this time, and the era is referred to as "the golden age for institutes and centers." Friedman, (1977) says, "By the late 60s, institutes and centers paralleled, and in and in some instances reveled academic departments." During this time, research centers became institutionalized on campuses.

After 1968, funding for research in the basic sciences became tighter and many universities began again to seek funding for programmatic research. During the 1970s and 1980s, research at universities increased greatly, but it became more and more programmatic. The federal contribution decreased and fell to the levels of the early 1960s, and industrial funding, which is programmatic in nature, became more prominent. In addition, institutions, themselves, began investing more money in research and the procurement of research dollars.

To leave the reader with the impression that the impetus to create centers and institutes came only from the environment would be misleading. Two other factors, one dealing with the individual element of a social system and the other with the institutional element must be discussed in order to understand how centers developed in higher education.

First, with regard to the individual element, centers and institutes emerged on university campuses partly because of an entrepreneurial faculty who saw heading a center or institute as a career move. In the late 19th century and early 20th century, many of the great universities were headed by entrepreneurial presidents such as Elliot at Harvard, Gilman at Johns Hopkins, Butler at Columbia and Harper at Chicago. After WWII, at the same time as centers and

institutes began to emerge, the age of the great college presidents passed and was replaced by the age of the managerial president. Managerial presidents presided over large cooperative universities. To fill the gap, institutes and centers offered entrepreneurial scholars opportunities to regain power. The new power to be acquired at centers and institutes lay in the ability to work with funding agencies, control funds, and control access to research support (Ikenberry & Friedman, 1972). Centers provided the academic entrepreneur opportunity for travel, time for research, secretarial assistance, space, equipment, and/or graduate assistants. The position of director of a center provided an attractive substitute for the position of departmental chair or college dean. These new centers became new work groups in the university social system which allowed academics to meet their individual needs: needs which were not being met within the academic department. At the same time, a division began between traditional academic departments and centers based upon their ability to meet individual needs of academic staff. Academic departments could still meet the need for achievement within one's discipline which centers and institutes could not meet, while centers appealed to the entrepreneurial spirit and the need for control over a research project.

Second, with regard to the institutional element, the creation of centers and institutes provided a means for central administration to set up another subunit under its control which would benefit the institution. The roles and rules within this subunit would then be defined by the institution. Administrators began to see that research units bettered the standing of many universities, even mediocre institutions. Geiger (1990) says, "Creating organized research units has been one way that 'have-not' institutions have been able to compete in selected areas against a more prestigious rival." Ikenberry and Friedman (1972, 19, 20) list the following institutional reasons for creating institutes and centers: 1) recruitment and retention of faculty, 2) increased coordination and communication between departments and programs, 3) strengthened graduate education and research programs, 4) resolution of internal conflicts, 5)

establishment of new institutional goals, 6) renovation and reform of existing departments, 7) creating of special areas of academic emphasis, specialization, and 8) enhancement of institutional visibility and prestige.

B. Characteristics of Centers and Institutes within Higher Education

Most of the literature in higher education on centers and institutes was written in the late 1960s and early 1970s, following the "golden years" of centers and institutes from 1958-1968 (Friedman, 1977). This body of work is descriptive and evaluative in nature, a response to a new phenomenon in higher education which had grown rapidly in the previous decade. These historical and descriptive works were published largely by the Pennsylvania State University Center for the Study of Higher Education and concentrate on centers and institutes at large, research, land-grant institutions (Ikenberry, 1970; Ikenberry, & Friedman, 1972; Friedman, 1977; Norman, 1971).

1. Function of centers and institutes

Historically, the major function of institutes and centers within higher education has been the coordination, administration, and conduct of programmatic research, although there was a time period before 1968 when basic science research was prominent. Many believe centers can handle these functions more efficiently than academic departments because 1) center goals are flexible, 2) centers can concentrate on specific projects and provide space and resources for those projects, 3) centers can hire staff on a temporary basis, 4) funding agencies prefer to deal with centers because they can handle funds more efficiently, and 5) centers can carry on interdisciplinary activities more effectively (Ikenberry & Friedman, 1972; Stahler & Tash, 1994; Friedman, 1977). To a lesser degree, other functions of centers and institutes include service (conferences, seminars, workshops, public service) and instruction (Ikenberry, 1970; Friedman, 1977).

Recently academic research centers have been looked upon as a vital link between industry and higher education (Steiner, 1995; Bitting, & Spriggs, 1995). Both federal and state government initiatives are sponsoring research which is based upon "real world" problems and is encouraging industry-academic collaboration. Centers play a role with the connected industry in technology transfer, management structure, funding, contract negotiation, intellectual property rights and evaluation (Bitting & Spriggs, 1995). Businesses have also linked with academic management and business education centers. These centers conduct surveys, disseminate information, maintain a library, and host conferences (Hoffman & Petry, 1991).

2. Relationship of centers to academic departments

The tension between academic departments and centers is a prevalent theme in the literature. Differences between centers and academic departments cited in the literature include 1) task-oriented centers vs. theoretically-oriented departments (Norman, 1971; Ikenberry & Friedman, 1972); 2) departmental control of faculty concerns, and thus faculty loyalty (control of funds, faculty appointments, academic rank, salaries, promotion and tenure, and university decision-making by departments) vs. center control of research project activities alone (Ikenberry & Friedman, 1972; Totman, 1976); 3) style of management of a center by a director vs. management of a department by chairman reflecting a difference in style (Stahler & Tash, 1994); and 4) disciplinary activities within academic departments vs. interdisciplinary activities available at centers (Friedman, 1977).

3. Placement of a center within the institution

The literature supports the idea that the placement of a center or institute has significant effect upon its function. Three possibilities are discussed: 1) independent, under a vice president or provost; 2) incorporated within a college or department; and 3) independent corporations (Norman, 1971; Totman, 1976;

Ikenberry, 1970). A relationship has been found between the source of initiation of a center and where it resides within the university structure (Norman, 1971). Reporting lines also have been found to depend upon where the center is placed within the institution (Norman, 1971). Finally, the placement of a center or institute determines how it is perceived by the university community. For example, large independent units are sometimes a threat to departments and colleges, while smaller college-affiliated centers are often too restricted in the activities they are able to carry out. Departmental centers have difficulty establishing interdisciplinary research and service projects, while large independent centers have problems attracting a faculty with disciplinary interests (Norman, 1971).

4. Funding of centers

Centers and institutes are almost always funded, at least in part, by outside agencies, either federal or state agencies, or private foundations. The type of funding has been shown to be related to the area of concentration. For example, agriculture, conservation, and physical and earth sciences are generally funded by federal funds; regional and area studies, social sciences, and education centers by foundations; and engineering by business and industry (Ikenberry, 1970). A correlation was also found between the placement of the center within the university and the source of funding (Ikenberry, 1970).

5. Internal structure of centers and institutes

Institutes and centers have been categorized in the literature as standard, adaptive, and shadow institutes (Ikenberry & Freidman, 1972). According to Ikenberry and Freidman, a standard institute has sufficient resources to meet its goals and objectives, employs a permanent professional staff, is able to invest in equipment, and occupies permanent space. Adaptive institutes, on the other hand, are created in response to government or foundation funding. They are continually undergoing change, redefining their goals, securing and releasing

staff, and initiating and terminating projects. They have a reasonably strong hierarchical management arrangement and maintain a nucleus of faculty who have ties to the center. They have some office space and basic equipment, but most personnel are not housed at the center. The director dictates (in response to funding agencies) what the center will do. Shadow institutes have no staff, no space, no budget, and often no visible accomplishments. Norman (1971) describes these three structures as: 1) "complete bureaucracies," that is, a unit with full managerial hierarchy and resources necessary for task performance; 2) "truncated bureaucracies," that is, the lower managerial levels and some of the needed resources are not stored within the organization until the specific nature of the task is known; and 3) "enucleated bureaucracies," that is, the organization is assembled on demand or on an ad hoc basis. Totman (1976) classifies centers as facilitative and autonomous units. Facilitative units further the purpose of the faculty affiliated with the unit by providing a context in which research can be offered to the faculty member without having to be concerned with the goals or mission of the center. Autonomous units, on the other hand, have their own distinct mission and/or research projects that exist regardless of the interests of the affiliated faculty.

C. Gerontology Institutes and Centers

1. History of gerontology centers

The body of literature which discusses the history of gerontology centers in general includes Maddox (1988); Simson & Wilson (1981); Craig, (1981); Peterson (1986); Pullen (1989); Teicher & Corcoran (1984); Thornton (1992); Peterson, Wendt, & Douglass (1994). Courses in aging could be found at colleges and universities as early as 1957 (57 campuses). The number of campuses offering courses in gerontology, geriatrics, or aging has increased greatly since 1957 to 1,639 campuses according to a 1992 survey (Peterson, Wendt & Douglass, 1994). Gerontology/geriatric/aging programs (instruction which results in a degree, certificate, specialization, concentration, minor, fellowship, or a research and/or clinical programs) were founded after the

passage of the Older American's Act in 1965. These programs were often located within centers or institutes and concentrated on multi-disciplinary studies of normal aging (Maddox, 1988). There were 410 of these programs in 1985, but the number increased to 692 in 1992 (Peterson, Wendt & Douglass, 1994). The Duke University Center for the Study of Aging and Human Development was one of the earliest gerontology centers. Its major focus was research, specifically longitudinal studies of normal aging (Maddox, 1988). Since then, like other gerontology programs at large universities, Duke has broadened its programs to include emphases on the biomedical aspects of aging and geriatrics, and more recently to policy issues (Maddox, 1988).

There is a body of literature which gives a historical perspective on specific gerontology/geriatric programs. These programs include University of Oregon Center for Gerontology (Bader, 1988); University of Connecticut Health Center (Lawson, 1986); the Southeast Florida Center on Aging at Florida International University (Rothman, 1989); York College of the City University of New York (Yee & Barley, 1987); and the University of North Texas, Center for Studies in Aging (Martin, 1991).

2. Characteristics of gerontology centers

Gerontology/geriatric programs are most frequently found in largest institutions and in institutions offering graduate level instruction (91% of the campuses have 20,000+) and is least frequently found on small campuses and those offering only an associate or bachelor's degree (less than 65% of campuses 5,000 and under) (Peterson, Wendt & Douglass, 1994). Only 52% of community colleges offer gerontology instruction. Of the historically black colleges and universities which responded to Peterson's 1992 survey, 71% reported having a gerontology program, which was a 41% increase from 1985 (Peterson, Wendt & Douglass, 1994). The number of academic units offering gerontology/geriatric instruction on a particular campus ranges from one to eight. The mean is 1.4 per campus (Peterson, Wendt & Douglass, 1994). Large

campuses and those offering doctoral instruction were most likely to report having multiple units involved in gerontology/geriatric instruction (Peterson, et.al. 1994). The term center or institute was used by 34% of the responding campuses in the 1992 survey (Peterson, Wendt & Douglass, 1994).

Gerontology programs offer a range of degrees, certifications and other award designations. Peterson's study (1994) showed that 20% of responding programs offered degrees or majors; 26% culminated in a certificate, and 54% resulted in some other designation such as a concentration, emphasis, minor, option, specialization, track, or fellowship. There was a mean of 22.7 students enrolled in each gerontology/geriatric program and 9.17 students graduating from each program the year prior to the 1992 survey (Peterson, Wendt & Douglass, 1994). Seventy-eight percent of the programs offer their own credit courses. The largest percentage of programs serves bachelors level students (33.4%), followed by masters (25.1%), doctorate/post-doctorate (18%), combined (13%), associate (8%), and other (3%). Literature which describes standards and guidelines for gerontology programs include Rich, Connelly & Douglass (1980); Johnson, et. al. (1980); Connelly & Rich (1989); Donahue (1960); Peterson (1984); Peterson & Bolton (1980); Van Orman (1984); and Ernst, et.al. (1982).

3. Organizational structure and dimensions of external environment:

As mentioned, the placement of a center within the university is important to its effectiveness in reaching its goals and the goals of the university. The literature which discusses the placement of gerontology centers and their design with regard to hierarchy includes Bader (1988); Friedsam (1986); Keyser-Jones, (1986); and Peterson (1987); Peterson, Wendt, Douglass (1994). Half (50%) of the gerontology administrators surveyed in 1992 (Peterson, Wendt & Douglass, 1994) report to a president, vice president or dean. The title held by gerontology program administrators was most often director (39%), followed by no title (23%), coordinator (20%), chairperson (13%) and dean (4%) (Peterson, Wendt &

Douglass, 1994). Only 9% of responding program administrators in the 1992 survey had the authority to recommend tenure for faculty. This was down from 20% in 1985.

Peterson, et. al. (1994), measured perception of administrative support of gerontology programs using three measures: 1) centrality of the program to the school's mission, 2) extent to which their program contributed to the prestige of the school, and 3) perception of the level of moral support received from campus administration. The majority of the responding gerontology programs in the study chose middle to middle-high levels of perceived support, showing a perception of moderate support. However, 10-13% of the respondents perceived lack of support (Peterson, et. al., 1994).

4. Functions and organizational goals of gerontology centers

When asked to use a word that best characterizes their programs, directors of gerontology/geriatric programs used these descriptive terms (listed from most mentioned to least mentioned): 1) gerontology, 2) multi-disciplinary, 3) social work, 4) sociology, 5) health, 6) nursing, 7) administration, 8) psychology, 9) medicine, 10) human development, 11) mental health, and 12) research (Peterson, Wendt & Douglass, 1994). Peterson divides programs into four program orientations: liberal arts, professional, scientific, and a combination of two orientations. Of the responding institutions, 13% were designated as liberal arts, 27% professional, 7% scientific, and 39% a combination of two orientations.

Based upon an unpublished survey of the literature on gerontology centers by the author of this document (Nichols, 1995), the function of gerontology centers most often mentioned in the literature about gerontology centers is curriculum and instruction (Romaniuk, 1984; Lawson, 1986; Puglisi, 1987; Ashton, 1988; Bolton, 1989; Rothman, 1989; Martin, 1991; Batsche & Moneson, 1993; Brower & Yurchuck, 1993; Ewald, 1993; Kroft, 1993; Wendt & Peterson, 1993a & b; Ewald, 1993, Newbern, 1994; Clark, 1994; Friedsam, 1995; Greaves, et. al., 1995; Luckie, 1996; Mazzoni, 1997). Two other areas

related to curriculum and instruction are faculty development (Friedsam, 1986; Keyser-Jones, 1986; Puglisi, 1987; Bolton, 1989; Pullen, 1989; John, et. al., 1992; Wendt & Peterson, 1993a & b; Olsen, 1994) and continuing education/professional development (Friedsam, 1986; Keyser-Jones, 1986; Pullen, 1989; Rothman, 1989; Wendt & Peterson, 1993a & b). Educational goals of gerontology programs have included 1) growth in formal gerontological education, 2) a reemphasis on the liberal arts, 3) more specialized training with substantive content in nursing, medicine, dentistry, public health, social work and other disciplines (Everhart, et. al., 1996; Johnson & Rosick, 1997), 4) creation of an international network of gerontological courses with common principles of curriculum design, and 5) development of the next generation of scholars and clinicians (Maddox, 1988; Mullins, 1988;).

To a lesser degree, gerontology centers are involved in research (Adelman, 1986; Keyser-Jones, 1986; Lawson, 1986; Malone-Beach, 1992; Rothman, 1989), service activities (Bass, 1986; Keyser-Jones, 1986; Lawson, 1986; Rothman, 1989; Malone-Beach, 1992; Rachal, 1996; Camp & Brookover, 1997). Research at gerontology centers covers a broad range of topics and disciplines including: medicine, biology, psychology, health issues, public policy issues, social relationships in later life, gains and deficits of growing old, workforce issues, ethics, care management, demographics and economics, to name just a few (Maddox, 1988; Mullens, 1988; Fairchild, 1988; Bass & Caro, 1995).

Other functions of gerontology programs include credentialing (Peterson, 1984 & 1987, 1998 ; Romaniuk, 1984; Seltzer, 1985; Friedsam, 1986; Johnson, 1995; Euster & Reaves, 1995) and career development for students (Filinson, 1993; Martin, 1991; Masunagi, et. al., 1998).

5. Resources and financial factors

The descriptive literature of gerontology centers discusses resources acquired by these centers. Such resources include faculty and endowed

positions (Bell, 1986; Phillipose, et. al., 1991; Friedsam, 1986; Wendt & Peterson, 1993a & b); funding (Craig, 1981; Rothman, 1989; Simson & Wilson, 1981); and outside partnerships and cooperative arrangements (Bass, 1986; Malone-Beach, 1992). In Peterson's survey (1994), only 50% of the responding programs report having a budget to administer, and most of those budgets were modest.

6. Relationship of gerontology centers to their constituents

Gerontology is a multi-disciplinary field of study. Important constituents of gerontology centers include members of the academic disciplines upon which they impact. There is a literature on the rationale for maintaining gerontology as a separate discipline vs. inserting gerontology content into existing disciplines and professional schools. This literature includes discussion of the need for certification of programs, the relationship of undergraduate to graduate programs, the need for continuing and community education, and the feasibility of interdisciplinary work. These articles include Fortune & Rathbone (1981); Thomas & Ship (1981); Simonson & Pratt (1982); Coccaro (1983); Callender (1984); Peterson (1984); Romaniuk & Arling (1984); Teicher & Corcoran (1984); Friedsam (1986); Mann, et. al. (1987); Puglisi (1987); Wilber & Zarit (1987); Duthie (1988); Maddox (1988); Netting & Wilson (1988); Bolton (1989); Cavallaro, ML (1992); Reed (1992); Brower & Yurchuck (1993); Ewald (1993); Jones & Rikli (1993); Euster & Reaves (1995); and Johnson, et. al. (1995); Blumberg, et. al. (1997); Rosin & Abramowitz (1997).

Another important constituent of gerontology centers is the community outside of the institution which may include state agencies, community agencies, elderly individuals and groups, and businesses. A concern of gerontology centers is whether their graduates are prepared to meet the demands of the job market (Newborn, et.al, 1994; Newborn & Kennedy, 1994; Reuben & Beck, 1994; Euster & Reaves, 1995; Watt & Meredith, 1995).

7. Future of gerontology centers/programs

Future challenges for gerontology in higher education include addressing the issues of aging which will be faced in the 21st century: 1) age-related differences between young vs. old, 2) prevention and independence issues, and 3) the balance between the gains and deficits of growing old (Maddox, 1988; Mullens, 1988). Educationally, progress needs to be made toward: 1) maintaining interdisciplinary balance in training programs, 2) developing the next generation of scholars and clinicians, 3) translating research into practice, 4) encouraging the development of disciplines which create a greater awareness of the diversity of social relationships within later life, e.g., anthropological gerontology and corporate gerontology, and 5) creating an international network of gerontological courses with common principles of curriculum design (Mullens, 1988; Maddox, 1988)

D. Organizational Effectiveness

Although there is a great deal of literature on organizational effectiveness in sociology, business and management, and higher education literature, there is little agreement on the definition of organizational effectiveness, the criteria of effectiveness, the constituencies to be surveyed, and the methods of assessment. Many scholars have rejected the notion that one universal model of effectiveness can be developed (Cameron & Whetten, 1983; 1996).

1. Definitions of effectiveness

The literature identifies four major approaches to defining organizational effectiveness. These include the *goal approach*, the *systems approach*, the *process approach*, and the *ecological or participant satisfaction approach*.

The *goal approach* defines organizational effectiveness as the ability of an organization to achieve its goals. Advocates of the goal approach include Georgopolous & Tannenbaum, 1957; Etzioni, 1964; Price, 1972; Campbell,

1977; and Scott, 1977. A problem identified with the goal approach is that organizations may pursue multiple and often contradictory goals (Perrow, 1970; Hall, 1972; Dubin, 1976), and the goals of the organization, which are stated in official documents, may not be the real or operative goals of those working in the organization (Hoy & Miskel, 1991). The goal approach assumes that decision makers have agreed upon a set of goals, and that there are few enough goals to be administered, defined & understood by participants (Hoy & Miskel, 1991). An example of the goal approach is a study (Fjortof & Smart, 1994) of 332 colleges and universities examining organizational culture and level of consensus about mission on the institution's organization effectiveness.

The *system resource* model defines effectiveness as the organization's ability to secure an advantageous bargaining position in its environment, and to capitalize on that position to acquire scarce and valued resources (Hoy & Miskel, 1991). In other words, organizational effectiveness is the ability to acquire resources from its environment. This model was proposed by Yuchtman, & Seashore, 1967. A problem identified with the system resource approach is that it assumes that organizations are open systems that exploit their environments, and that in effective organizations, the internal operations, including: bureaucratic expectations; informal groups; leadership decisions; communication processes; and individual needs, work together to impact the environment (Hoy & Miskel, 1991), which is often not the case. In fact, many organizational units within higher education function well with only the resources provided within the system. An example of a study using the system resource model is one by Cameron and Smart (1997) examining the association between financial difficulties of institutions of higher education and their organizational effectiveness which showed that institutions facing downsizing and financial decline can remain effective if negative organizational attributes are not allowed to emerge. Taylor and Massy, 1996 give "vital benchmarks" to help colleges and universities measure organizational effectiveness using a system resource model.

The *process approach* equates organizational effectiveness with internal organizational health, efficiency, and procedures (Cameron, 1981a), and is advocated by Argyris (1964), Bennis (1966), Likert (1967), Steers (1977), Pfeffer and Salancik (1977), Beckhard (1969) (organizational development), Bennis (1966) (organizational health), and Nadler and Tushman (1980). In process approach, researchers would look at management style, interpersonal relationships, work procedures, etc. A problem with the process approach is that organizations which are internally quite turbulent can be effective in a number of ways.

The *ecological or participant satisfaction* model defines organizational effectiveness by the extent to which constituents of the organization are satisfied and their needs and expectations are being met. Theorists who have studied this approach include Connolly, 1980 (constituency satisfaction); Keeley, 1980; Pfeffer & Salancik, 1978 (strategic constituencies) and Miles & Cameron, 1982; Zammuto, 1982 (legitimacy). States, one of the important constituents of many universities, have issued educational mandates for measuring institutional effectiveness (Hudgins, 1993).

Integrated models take the position that all four of these models are important in measuring effectiveness, and combine the models. Examples of integrated model approaches are Parsons, 1960; Goodman & Pennings, 1977; Steers, 1975; Campbell, 1977; Cameron, 1978; 1983. Cameron's integrated model is used in this study.

2. Domains of organizational effectiveness

The literature supports the assumption that there are multiple criteria (Campbell, 1977 - 30 categories; Steers, 1975 - 15 categories; Cameron, 1978, 1983 - 9 categories) for organizational effectiveness and that these do not remain constant because: 1) they shift as organizations move through their life cycles (Quinn & Cameron, 1983); 2) each organization or type of organization requires a unique set of effectiveness criteria (Rice, 1961; Hall, 1972; Scott,

1977; and Cameron, 1978); 3) effectiveness in one domain may not necessarily relate to effectiveness in another domain (Cameron, 1978); 4) constituent groups prefer different criteria, and institutional culture affects organizational culture (Smart, et. al., 1996). For example, administrators prefer structural or bureaucratic indicators, teachers prefer process standard indicators, and students, taxpayers, and politicians prefer product or outcome and efficiency measures (Hoy & Miskel, 1981).

Nine criteria or dimensions of effectiveness at institutions of higher education were developed by Cameron, 1978 after asking college and university administrators to select criteria of effectiveness from a list of 130 variables taken from the literature on organizational effectiveness. These dimensions include 1) student educational satisfaction, 2) student academic development, 3) student career development, 4) student personal development, 5) faculty and administrator employment satisfaction, 6) professional development and quality of the faculty, 7) systems openness and community interaction, 8) ability to acquire resources, 9) organizational health - benevolence, vitality and viability in the internal processes and practices. In a study (Cameron (1981b) Cameron empirically identified domains that typify colleges and universities and assessed levels of effectiveness in each of those domains. These four domains include 1) *external adaptation*, which deals with student career development, system openness, and community interaction; 2) *morale*, which is concerned with student educational satisfaction, administrator satisfaction, and organizational health; 3) *academic orientation*, which deals with student academic development, professional development, quality of faculty, and ability to acquire resources; and 4) *extracurricular*, which deals only with student personal development. These domains have been tested by others on different populations ((Smart & Hamm, 1993 (community colleges), Lysons, 1993, 1996 and Lysons & Hatherly, 1992 (colleges in Australia and the United Kingdom) Cameron, et. al., 1994 (non-academic sectors of colleges and universities) and

Clott, 1995 (academic deans of American Assembly of Collegiate Schools of Business).

3. Constituencies of organizational effectiveness

Effectiveness criteria always reflect the values and biases of constituencies or stakeholders (Hoy & Miskel, 1991). Therefore effectiveness criteria must be drawn from a number of perspectives (Piffner & Sherwood, 341960; Steers, 1975; Katz & Kahn, 1978). There is, however, a rationale for tapping into information from the major decision makers and directors of organizations. According to Cameron (1978), the best sources of information about organizational effectiveness are decision makers because they: 1) are the source allocators, 2) are the determiners of organizational policy; 3) explicators of organizational goals; 4) are the most likely group to identify the cause and effect relationships within an organization and to specify the preferred hierarchy of outcomes; 5) are the representatives in the bargaining process within an organization; and 6) are among the major users of information about organizational effectiveness (Cameron, 1978).

4. Measurement of Organizational Effectiveness

The literature is vague about how to measure organizational effectiveness. Since criteria of effectiveness vary, studies rarely build upon one another. Researchers have had difficulty separating criteria of effectiveness from determinants of effectiveness (Goodman & Pennings, 1977) and determining the relationships among various effectiveness dimensions (Cameron, 1978).

Organizational effectiveness can be measured by using director observation of organizational behavior, relying on the verbalization of relevant constituencies, and/or using written, formal communication and reports. According to R. Kahn (1977), direct observations of behavior are, in many instances, difficult and expensive and the behaviors that are readily observable

are seldom the organizational outcomes in which the researchers are interested. Verbalizations can get at more variables of interest to the observers, but they are based on the perspective of the constituent. Formal documents and organizational records are called "objective criteria" (Campbell, 1977) and are viewed by some as inappropriate because effectiveness criteria should always be subjective (Campbell, 1977).

Measuring organizational effectiveness in institutions of higher education has a unique set of problems. When senior faculty members and administrators were asked to rate the importance of a series of goals to their institution, they rated all the goals as important (Gross & Grambsch, 1968). To avoid this problem, Cameron (1981b) asked respondents from universities and colleges to rate the extent to which their institution is typified by certain characteristics of effective institutions that represent a particular domain.

5. Criteria for measuring organizational effectiveness in gerontology centers

Although the literature on centers and institutes does not refer specifically to organizational effectiveness, several authors give suggestions for "successfulness." The factors for successfulness most commonly mentioned are: administrative support in terms of initiating, coordinating, and planning (Totman, 1976; Stahler & Tash, 1994); financial support (Totman, 1976; Peterson, et.al, 1991; Ikenberry & Friedman, 1972; Stahler & Tash, 1994); leadership and management (Totman, 1976; Peterson, et. al., 1991; Stahler & Tash, 1994); policies regarding faculty and instructional offerings (Peterson, et. al., 1991; Ikenberry & Friedman, 1972); associations inside and outside the university (Totman, 1976; Stahler & Tash, 1994); appropriate placement of the center in the university (Peterson, et. al., 1991; Ikenberry & Friedman, 1972; Stahler & Tash, 1994); and a fit between the goals of the center and the goals of the institution (Ikenberry & Friedman, 1972; Totman, 1976; Stahler & Tash, 1994).

CHAPTER 3

METHODS AND PROCEDURES

A. Design of the Study

Organizational effectiveness in gerontology centers and institutes in American universities and colleges has not been systematically studied. This exploratory study focuses on characteristics of gerontology institutes and centers at American universities and colleges and organizational effectiveness. It determines characteristics of gerontology institutes and centers that can explain differences in organizational effectiveness. Since this study is exploratory, no hypotheses is offered.

1. Research Questions

1. What are the domains of organizational effectiveness of gerontology centers?
2. What are the structural and functional models (i.e., organizational/external environment, strategic emphasis, organizational goal preferences, financial indicators, demographics) which may predict the domain in which a gerontology center will be effective?
3. What are the specific characteristics of gerontology centers that may predict the domain in which a gerontology center will be effective?

2. Expected Outcomes

This study results in:

- a. Domains of effectiveness of gerontology centers,
- b. Gerontology centers identified under each effectiveness domain,

- b. Structural/functional models which may predict domains of organizational effectiveness of gerontology centers,
- d. Characteristics of gerontology centers and institutes which can be used to correctly classify centers and institutes into their organizational effectiveness domains.

3. Instruments

A two-part survey instrument was used to collect data for this project.

a. Part A (Characteristics of Gerontology Centers)

A survey questionnaire (Appendix II) was designed to collect characteristics of each gerontology center/institute. This questionnaire was sent to directors of gerontology centers and institutes listed in the National Directory of Gerontology and Geriatric Programs. The characteristics of gerontology centers were gathered from literature on institutes and centers and literature on gerontology centers and organized under four factors: 1) organizational structure and external environment, 2) strategy of administrators, 3) organizational goal preferences, and 4) institutional demographics. Items explored under these four factors include:

1. Organizational structure and dimensions of the external environment
 - a. placement in the institution
 - b. reporting lines of director
 - c. perceived permanence/stability
 - d. adequacy of physical plant
 - f. faculty and staff relationships to center
2. Strategic emphases of administration
 - a. leadership style
 - b. emphasis placed on job functions of director
3. Organizational goal preferences
 - a. mission (research, instruction, service)
 - b. activities of center

- c. goals
 - 1. satisfaction (student, faculty/administrator)
 - 2. development (academic, career, personal, professional)
 - 3. collaboration (interdisciplinary, community)
 - 4. resource acquisition
- 4. Financial indicators
 - a. source of revenues
 - b. percentage of revenues from each source
 - c. expenditures
 - d. adequacy of revenues and resources
- 5. Organizational demographics
 - a. age of institute
 - b. number of faculty members (permanent and affiliated)
 - c. type of facility
 - d. general expenditure
 - e. amount of sponsored research

b. Part B (Ratings of Organizational Effectiveness)

Questions from the survey questionnaire used in a study by Kim Cameron (1981) to explore organizational effectiveness of higher education institutions, were adapted for use in this project and are included in Part B of the survey questionnaire (Appendix III). Cameron's questionnaire was designed to focus on organizational effectiveness dimensions of colleges and universities and therefore minor word changes had to be made to adapt it to gerontology centers.

The questionnaire asks respondents to rate the extent to which a gerontology center is typified by certain characteristics of effective centers. Part B was sent to the directors of gerontology centers, as well as other administrators and faculty members associated with the center and recommended by the director.

The following is a list of effectiveness factors which were probed in the survey:

1. Student academic development
 - a. amount of extra work and study by students
 - b. level of student academic attainment
 - c. number students going on to graduate school
 - d. amount of student academic development
 - c. emphasis on outside academic activities
2. Professional development and quality of the faculty
 - a. faculty attendance at professional conferences
 - b. faculty publications
 - c. teaching at the cutting edge
3. Ability to acquire resources
 - a. national reputation of faculty
 - b. drawing power for local students
 - c. drawing power for national students
 - d. drawing power for faculty
 - e. drawing power for financial resources
 - f. ability to acquire resources
4. Student educational satisfaction
 - a. manifested student dissatisfaction
 - b. received student complains
 - c. attrition resulting from dissatisfaction
 - d. school spirit displayed
5. Faculty and administrator employment satisfaction
 - a. faculty preference for this institution over others
 - b. administrator preference for this institution over others
 - c. faculty satisfaction with employment
 - d. administrator satisfaction with the center
6. Organizational health
 - a. student/faculty relations
 - b. intergroup relations

- c. amount of feedback obtained
- d. typical communication type
- e. presence of cooperative environment
- f. flexibility of administration
- g. levels of trust
- h. amount of conflict and frustration
- i. problem solving styles used
- j. use of talents and expertise
- k. types of supervision and control
- l. types of adequacy of recognition and rewards
- m. decision making styles
- n. amount of power associated with participation
- o. equity of treatment and rewards
- p. organizational health
- q. long-term planning and goal setting
- r. intellectual orientation

7. Student career development

- a. number of students employed in major field
- b. extent to which career goals are met
- c. number of career oriented courses
- d. number of students obtaining jobs of first choice
- e. importance of career education for job attainment

8. System openness and community interaction

- a. community service employees
- b. professional activities outside of the college
- c. emphasis on community relations
- d. community programs sponsored
- e. adaptiveness to external environment

9. Student personal development

- a. opportunities for personal development

- b. non-academic growth
- c. emphasis on non-academic activities
- d. importance of personal development

4. *Validity*

The question of validity in this study deals with whether or not the domains which emerge from the factor analysis on the organizational effectiveness questionnaire are a meaningful measure of a gerontology center's organizational effectiveness, and if there is a relationship between a center's score in a domain and its effectiveness in that domain. Since this is an exploratory study, and organizational effectiveness in gerontology centers has never been measured, the validity of Cameron's organizational effectiveness measures for gerontology centers, cannot be addressed at this point. However, attempts to validate measures of organizational effectiveness in higher education have been undertaken. In Cameron's first study (1978), he used three steps to validate the criteria of organizational effectiveness which he used, and would use in subsequent studies. He employed both a questionnaire and interviews to gather both subjective and objective data on organizational effectiveness in higher education. His first subjects were four or five top administrators from six colleges in New England. In the interview process, respondents were asked: "What organizational characteristics do effective colleges possess? What is it at this institution that makes a difference in terms of its effectiveness? What would one have to change in order to make this institution more effective? Think of an institution of higher education that you judge to be effective; what is it that makes the institution effective? Of the 130 items generated from the literature, which ones are not relevant to the effectiveness of this school? Of the 130 items, which ones are not measurable or for which are data not available?" On the basis of the data gathered from the interviews, criteria were developed to measure the nine dimensions. A questionnaire was sent asking respondents to rate the extent to which their college possessed certain organizational

characteristics. Finally, questions were asked designed to obtain objective data from the records of each institution.

Cameron (1986) reported evidence of external validity of the dimensions. First, six of the nine dimensions were significantly and positively associated with financial health. Second, looking at enrollments over a seven-year period, of the ten institutions having the highest overall effectiveness scores, only one experienced a decline in enrollment; while of the ten schools with the lowest effectiveness scores, seven experienced enrollment declines. Thirdly, institutions ranking high in the Gourman Report (overall academic rating) for 1980, correlated at 0.745 with schools rating high in Cameron's domain of academic effectiveness.

Other studies have tested the discriminant validity of the dimensions of organizational effectiveness in predicting groups of institutions effective within an effectiveness dimension. Cameron's (1981) four groups of colleges and universities were: scholarly, professional technical, prestige turmoil, and undistinguished regional. The Australian study (Lysons, 1993) was successful in predicting four groups of institutions in Australia which strikingly resembled Cameron's types. Another study (Smart and Hamm, 1993) found that scores on the nine effectiveness dimensions could account for differences in the respondents' perceptions of organizational effectiveness across three groups of two-year colleges, controlling for differences in size and the degree of financial difficulty.

5. Reliability

A number of studies attempted to determine if the nine domains of effectiveness, which resulted from Cameron's 1978 study of six colleges in New England, would emerge in different populations of higher educational institutions or units. In Cameron's 1981 study of 41 colleges and universities, the same nine dimensions of effectiveness as in the 1978 study emerged with internal consistency reliabilities for each of the dimensions ranging from .83 to .99.

Average within-dimension correlations were higher than the outside dimension correlations at the $p < .001$ level for each dimension, indicating that internal consistency and discriminant validity were acceptable. Again in Cameron's 1986 study of 29 colleges and universities, the same nine dimensions emerged from the study. Internal consistency reliabilities ranged from .72 to .92 with a mean coefficient of .82. In 1988, a study by Lysons and Ryder tested the reliability of Cameron's nine original dimensions of organizational effectiveness in a large-scale research program involving Australian higher educational institutions. It defined four of Cameron's dimensions discretely: staff satisfaction, student personal development, organizational systems openness, and health. Another test of Cameron's approach was a 1992 study by Lysons and Hatherly. The findings showed that the scales developed by Cameron demonstrated "considerably higher levels of reliability in the U.K. than in Australia" (Lysons and Hatherly, 1992, p.221). This was attributed to stronger cultural traditions between the U.S. and the U.K. than between the U.S. and Australia. In Lysons and Hatherly's study, five of Cameron's nine scales were discretely defined: student career and personal development; staff employment satisfaction; organizational systems openness, and organizational health. Other dimensions were defined: student educational satisfaction; staff development and quality; and ability to acquire resources, although the two latter factors were linked to student academic development. Another study (Smart and Hamm 1993) studied the applicability of Cameron's nine dimensions to two-year institutions. A factor analysis of the effectiveness items was performed to measure the reliability of the nine dimensions which resulted in strong support for the overall dimensionality of Cameron's scales. The only substantial variation was the combined loading of the items on the system openness and community interaction and ability to acquire resources scales on a common factor. Eighty-six percent of the items loaded on the proper factor.

In sum, the professional literature provides strong evidence of both the reliability and the validity of the measures of organizational effectiveness that is used in this study of gerontology centers.

B. Description of the Population

All gerontology institutes listed as such in the 1992 National Directory of Educational Programs in Gerontology and Geriatrics were selected for inclusion in the study. There were 96 gerontology institutes and centers listed. In addition to completing the questionnaire, each director was asked to supply names of administrators/faculty working for, or associated with, the center, under the following models: 1) central administrator with responsibility for the center, 2) project or program administrators or directors, 3) directors of subunits, and 4) faculty members involved in planning and implementing for the center. These individuals were sent and asked to complete Part B of the questionnaire (Appendix II) which probes perceptions of organizational effectiveness.

C. Scope and Methodology of the Project

1. Procedures

a. Pilot study

1. Parts A and B were piloted with directors from centers and institutes at West Virginia University. The centers and institutes included in this pilot were:

Robert Dilger, Ph.D.

WVU Institute for Public Affairs

Helen M. Bannan, Ph.D.

Women Studies

Y.V. Reddy, Ph.D.

W.V.U. Concurrent Engineering Research Center

Richard A. Bajura, Ph.D.

National Research Center for Coal and Energy

Darrell R. Dean, Ph.D.

Harley O. Staggers National Transportation Center

Fred R. Butcher, Ph.D.

Mary Babb Randolph Cancer Center

Andrew Isserman, Ph.D.

Regional Research Institute

Charles C. Blue, Jr.,

Center for Black Culture and Research

Ronald C. Althouse, Ph.D.

W.V.U. Survey Research Center

Emory L. Kemp, Ph.D.

*Institute for the History of Technology
and Industrial Archaeology*

Stanley J. Kloc, MBA

Small Business Development Center

Minor changes were made to the survey instrument based on the pilot questionnaires. For instance, political science and public administration were added to the list of disciplines of permanent faculty and state legislature was added to the list of choices for the impetus for establishing the center. Advisory committee was added to the list of those who select activities for the center. Two questions were dropped from the survey based on the pilot study because respondents did not answer them and they did not seem to add anything important to the study. They were questions about the need for additional equipment and improved facilities.

b. Questionnaire distribution and collection of data

Parts A and B of the questionnaire were sent to 96 directors of gerontology centers and institutes. After one month, a letter was sent to those directors who had not returned their questionnaires. Phone calls were then made to the directors who had not returned their questionnaires. Through the

process of retrieving questionnaires, it was discovered that nine of the centers/institutes no longer existed and therefore the list of gerontology centers and institutes was reduced to 87 (Appendix I). Collection of questionnaires proved problematic. Blank questionnaires were returned with comments stating that the survey was too long, it was not relevant to their center, and the director and affiliates did not have time to complete it. After consultation with the chair of the dissertation committee, Part A was shortened by excluding questions which were often not being answered, particularly those that asked for information about the parent institution. Part A was reduced from eight pages to four pages. This effort did help to increase the return. In all, 42 center directors returned questionnaires or 48%.

The study is limited by the low number of returned questionnaires. However, of the centers that responded, 74% were at large public universities, 9% were at large private universities, and 17% were at small private colleges. Similarly, of the centers that did not return their questionnaires (See Table 2), 73% were at large public universities, 22% were from large private universities, and 5% were from small colleges. This group of universities sufficiently parallels the universities that did return the questionnaires in size and type. It is safe to make the assumption that the responses from these gerontology centers would not have been significantly different from those that returned the questionnaires.

Table 1

GERONTOLOGY CENTERS THAT RESPONDED TO QUESTIONNAIRE

Andrus Gerontology Center	University of Southern California
Brookdale Center on Aging	Hunter College
Buehler Center on Aging	Northeastern University
Center on Aging	Univ. of Texas Medical Branch
Center for Policy Research	Syracuse University
Center on Aging	University of Hawaii
Center on Aging	Univ. of Colorado/Colorado Spr.
Center on Aging	University of Kansas Medical Ctr.
Center for the Study of Aging	University of Vermont
Center on Aging and Aged	Indiana University
Center on Aging	Univ. of Texas Health Sci. Ctr
Center on Aging	West Virginia University
Center for Aging and Health	University of California, Davis
Center for Gerontology	Virginia Polytechnic Institute
Center on Aging	University of Iowa
Gerontology Center	University of Utah
Gerontology Center	Georgia State University
Gerontology Center	Rhode Island College
Gerontology Center	University of Evansville
Gerontology Center	Boston University
Gerontology Center	Pennsylvania State University
Gerontology Institute	Univ. of Massachusetts/ Boston
Gerontology Center	American River College
Gerontology Center	Univ. of Arkansas/Little Rock
Gerontology Program	Santa Clara University
Gerontology Center	West Chester University
Graham & Jean Stanford Center on Aging	University of Nevada, Reno
Inst. Life Span Development & Gerontology	University of Akron
Institute of Aging	Temple University
Institute for Aging and Environment	University of Wisconsin
Institute of Gerontology	University of Denver
Institute in Gerontology	Saint Joseph College
Institute on Aging	Portland State University
Institute of Gerontology	Utica College
Institute of Gerontological Studies	West Virginia State College
Institute of Gerontology	Univ. of the District of Columbia
Policy Center and Aging	Brandeis University
Pruett Gerontology Center	Abilene Christian University
Rengel Institute	SUNY, Albany
Resource Center on Gerontology	University of North Dakota
Scripps Gerontology Center	Miami University, Ohio
Travelers Center on Aging	University of Connecticut

Table 2--GERONTOLOGY CENTERS — NON-RESPONDENTS

Arizona Center on Aging	University of Arizona
Center on Aging	University of California, Berkley
Center on Aging	Ball State University
Center for Studies in Aging	University of North Texas
Center for the Study on Aging	University of Alabama
Center on Aging	University of New Mexico
Center for the Study of Aging & Health	NYU
Center on Aging and Health,	Case Western Reserve University
Center on Aging	University of New Mexico
Center for Gerontological Studies	University of Florida
Center for Aging	Kansas State University
Center on Aging	University of Kansas Medical Center
Center on Aging	Florida International University
Center for Gerontology	Brown University
Center on Aging	Meharry Medical Center
Center for Geriatrics	Emory University
Center for Adult Development and Aging	Univ. of Miami
Center for Study of Human Development	Duke University
Center for Aging	University of Alabama, Birmingham
Center for Geriatrics/Gerontology,	Columbia University
Center for the Study of Aging	Illinois State University
Center on Aging	Long Island University
Gerontology Center	University of Georgia
Gerontology and Aging Studies	University of Illinois, Urbana
Gerontology Program	California State University, Sacramento
Gerontology Center	University of Illinois at Chicago
Gerontology Center	University of Kansas
Institute on Aging	Incarnate Word College
Institute on Aging	University of Washington
Institute for Health/Policy/Aging	Rutgers University
Institute of Gerontology	University of Michigan
Institute of Gerontology	Wayne State University
Institute of Gerontological Studies	Baylor University
Institute of Gerontology	Southeast Missouri State
Institute on Aging	Temple
Multidisciplinary Center on Aging	SUNY, Buffalo
Paul Stricht Center on Aging	Wake Forest
Pepper Instit. on Aging & Public Policy	Florida State Univ.
Roybal Institute for Applied Gerontology	California State Univ., LA
Suncoast Gerontology Center	Univ. Of South Florida
Third Age Center	Fordham University
University Center on Aging	San Diego State
Urban Center on Aging	University of Louisville
Virginia Center on Aging	Virginia Commonwealth University

As questionnaires were returned from directors, Part B was sent to 121 constituents named on the questionnaires or approximately three individuals for each responding institution. These names included directors of subunits, project directors, affiliated faculty, and other administrators in the institution. Some directors did not give names of constituents because they did not want to bother their colleagues or because they were the only staff member involved in the institute or center. If no names were given, the Directory of Gerontology and Geriatric Programs was examined to see if there were any other names listed to whom a questionnaire could be sent. If there were none, a questionnaire was sent to the president, provost, dean at the home institution, or the chair of the department which appeared to be involved in the center or institute. One month later, a letter was sent to delinquent constituents. Seventy-two Part B questionnaires were returned in this part of the study or 59.5%. Overall, the rate of return from both Part A and B of questionnaire was 54.8%.

c. Type of Analysis of Data

1. Factor analysis was used with data from Part B of the questionnaire to determine domains of effectiveness of gerontology centers.
2. Cronbach Coefficient Alpha Correlations were run on each of the factors to determine if they should remain in the analysis.
3. A median analysis was performed to determine which gerontology centers were effective in each of the domains of organizational effectiveness. Centers whose mean scores on each of the domains were above the median were included in each domain group.
4. Multiple regression analysis was used to determine structural and functional models of institutions of higher education which may predict the domain of effectiveness of gerontology centers. Each of the models was analyzed separately.
5. Regression analysis was used to determine predictor variables for each of the domains of organizational effectiveness.

CHAPTER 4

DATA ANALYSIS

A. Introduction to the Findings

The findings from this study are contained in this chapter. The first section in this chapter discusses the results of the factor analysis which was performed on the ratings of organizational effectiveness or dependent variables (Part B of the questionnaire). Cronbach Coefficient Alpha Correlations were performed on each factor to determine if any factor should be eliminated from further analysis. Each factor or grouping resulting from this analysis is described and named as a domain of organizational effectiveness for gerontology centers. The resulting domains of organizational effectiveness in gerontology centers are used in subsequent analysis in this study.

The second section in this chapter discusses the results of a median analysis which was performed on each factor with each of the centers to determine which gerontology centers were effective under each of the domains of organization effectiveness.

The third section in this chapter discusses the results of a multiple regression analysis performed with groups of independent variables (Part A of the questionnaire) and the domains or organizational effectiveness to determine structural and functional models which may predict organizational effectiveness of gerontology centers.

The fourth section of this chapter discusses the results of a regression analysis performed on all independent variables and the domains of organizational effectiveness to determine predictor variables or characteristics of centers which may predict the domain of organizational effectiveness in which gerontology centers fall.

B. Findings

1. Domains of Organizational Effectiveness of Gerontology Centers

A factor analysis was used with data from Part B of the questionnaire to determine domains of organizational effectiveness in gerontology centers. The

six factors listed below emerged with at least three variables loading on the factors with correlations of .5 or above. (See Appendix V for the complete factor analysis.)

Factor 1-- Non-Academic and Community Openness - *the extent to which the gerontology center emphasizes the personal, non-academic needs of students and is involved in the community.*

(Ques 2) provides opportunity for student personal development

(Ques 3) responsive to community needs

(Ques 8) students maintain commitment to center

(Ques 9) alumni show support in activities

(Ques 15) important to student-personal development

(Ques 17) outside activities enhance personal development

(Ques 19) center-community relations

(Ques 21) student development in non-academics

Factor 2--Career Goal Satisfaction - *the extent to which the center helps students and faculty prepare for career opportunities.*

(Ques 26) graduates who enter jobs related to field

(Ques 27) students enrolled to fill career goals

(Ques 29) students obtain jobs of first choice

(Ques 32) number of administrators opting to leave

(Ques 33) faculty satisfied with employment

Factor 3--Resource Acquisition - *the ability of the gerontology center to acquire resources from the external environment, such as good students and faculty and financial support.*

(Ques 4) has ability to obtain financial resource

(Ques 5) center can attract leading faculty members

(Ques 6) center can attract leading students

(Ques 8) center can obtain resources

Factor 4--Organizational Health - *the benevolence, vitality, and viability in the internal processes and practices at the institution.*

- (Ques 44) interdepartmental relations
- (Ques 46) equity of treatment and rewards
- (Quest 49) type of communication that is typical
- (Ques 50) general social environment
- (Ques 53) conflicts and friction in the center
- (Ques 54) resolution of disagreements or conflicts
- (Ques 56) organizational health of the center
- (Ques 57) long-term planning and goal setting

Factor 5--Quality Faculty - *the extent of professional attainment and development of the faculty and the amount of stimulation toward professional development provided by the center.*

- (Ques 25) faculty and national reputation
- (Ques 38) percentage of faculty publishing a book or article
- (Ques 39) faculty teaching at the cutting edge
- (Ques 41) faculty engaged in professional development

Factor 6--Student Satisfaction - *the degree of satisfaction of students with their experience at the gerontology center.*

- (Ques 11) large number of students drop out
- (Ques 12) aware of student complaints
- (Ques 30) students' training helpful for jobs
- (Ques 52) general levels of trust among people

Factor 7-- Faculty and Staff Job Satisfaction - *the extent to which faculty and staff feel their efforts at the gerontology center is being recognized and rewarded.*

(Ques 47) recognition for good work from supervisors
(Ques 48) information and feedback received
(Ques 51) flexibility of the administration
(Ques 55) use of talents by faculty and administrators

Cronbach Coefficient Alpha Correlations were run on each of the seven factors (Appendix VI). All of the Cronbach Coefficient Alphas were above .60 except student satisfaction. Therefore, the domain of student satisfaction was dropped from the analysis.

2. Gerontology Centers and the Effectiveness Domains

In order to determine which centers were effective in each of the six domains of organizational effectiveness, median scores for each gerontology center were calculated for each factor. Centers having a mean score of .5 or higher are above the median for that effectiveness domain, and were considered effective in that domain. The results of the median analysis are in Appendix VII and summarized in Table 2. (The numbers next to each domain indicate the number of the gerontology centers in this study which is effective in that domain.) Six gerontology centers did not score above the median on any organizational effectiveness factor; eight scored above the median in only one factor; fourteen scored above the median in two factors; six on three factors; six on four factors; one on five factors and one on six factors (See Table 3). The number of gerontology centers effective in each domain of organizational effectiveness ranged from 12 to 18 (See Table 4).

Among the 42 gerontology centers there were 15 unique combinations of effectiveness domains. The following combinations appeared:

Resource Acquisition/Quality of Faculty/Non-Academic/Career Goal (2)
Faculty and Staff Job Satisfaction/Organizational Health (5)
Quality of Faculty/Non-Academic (2)
Faculty and staff job satisfaction (2)

Organizational Health (2)

Non-Academic (2)

No center was effective in career goal satisfaction or quality of faculty if they were not also effective in another domain. Also, except for two centers which were only effective in the domain of Faculty and Staff Job Satisfaction, all centers effective in Faculty and Staff Job Satisfaction were also effective in organizational health. More gerontology centers were effective in Non-Academic and Community Openness than in any other domain.

TABLE 3

**GERONTOLOGY CENTERS WHICH ARE EFFECTIVE IN EACH DOMAIN
OF ORGANIZATIONAL EFFECTIVENESS**

Acquisition of Resources	Centers: 1, 4, 7, 9, 12, 14, 21, 29, 31,32, 33, 35, 37, 39, 40
Quality of Faculty	Centers: 4, 9, 10, 17, 21, 26, 28, 29, 30, 31, 37, 39, 40
Faculty and staff job satisfaction	Centers: 3, 8,16, 17, 19, 23, 24,25, 28, 29, 31, 32, 36, 37, 40
Organizational Health	Centers: 2, 3, 8, 14, 15, 16, 18, 23, 24, 25, 28, 32, 33, 34, 36, 37, 40
Non-Academic	Centers: 1, 2, 4, 5, 7, 9, 10, 14, 17, 21, 22, 23, 26, 27, 29, 32, 40, 42
Career goal satisfaction	Centers: 4, 5, 7, 9, 10, 15, 21, 23, 29, 31, 35, 39, 40, 42

TABLE 4--EFFECTIVENESS DOMAINS OF EACH GERONTOLOGY CENTER

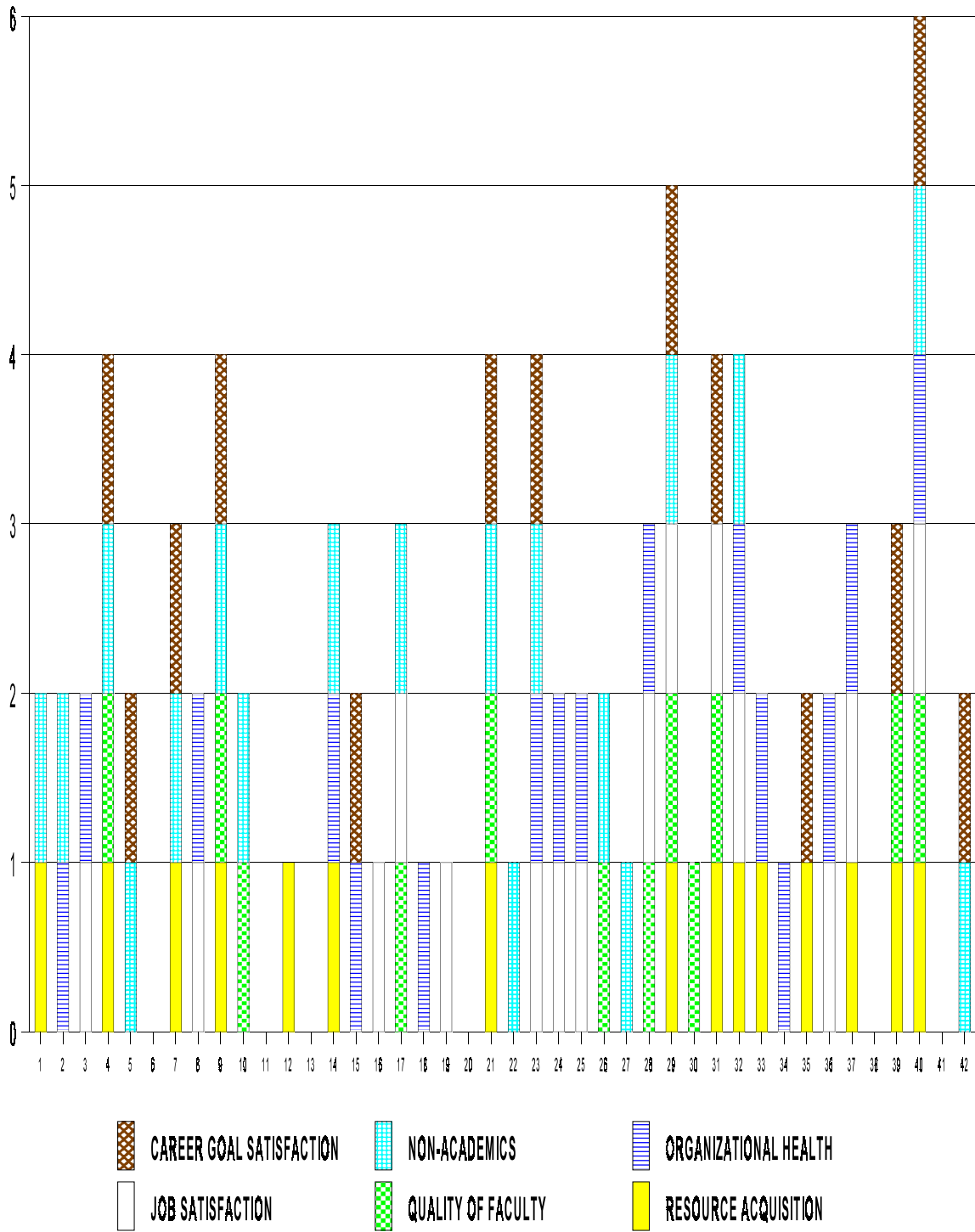
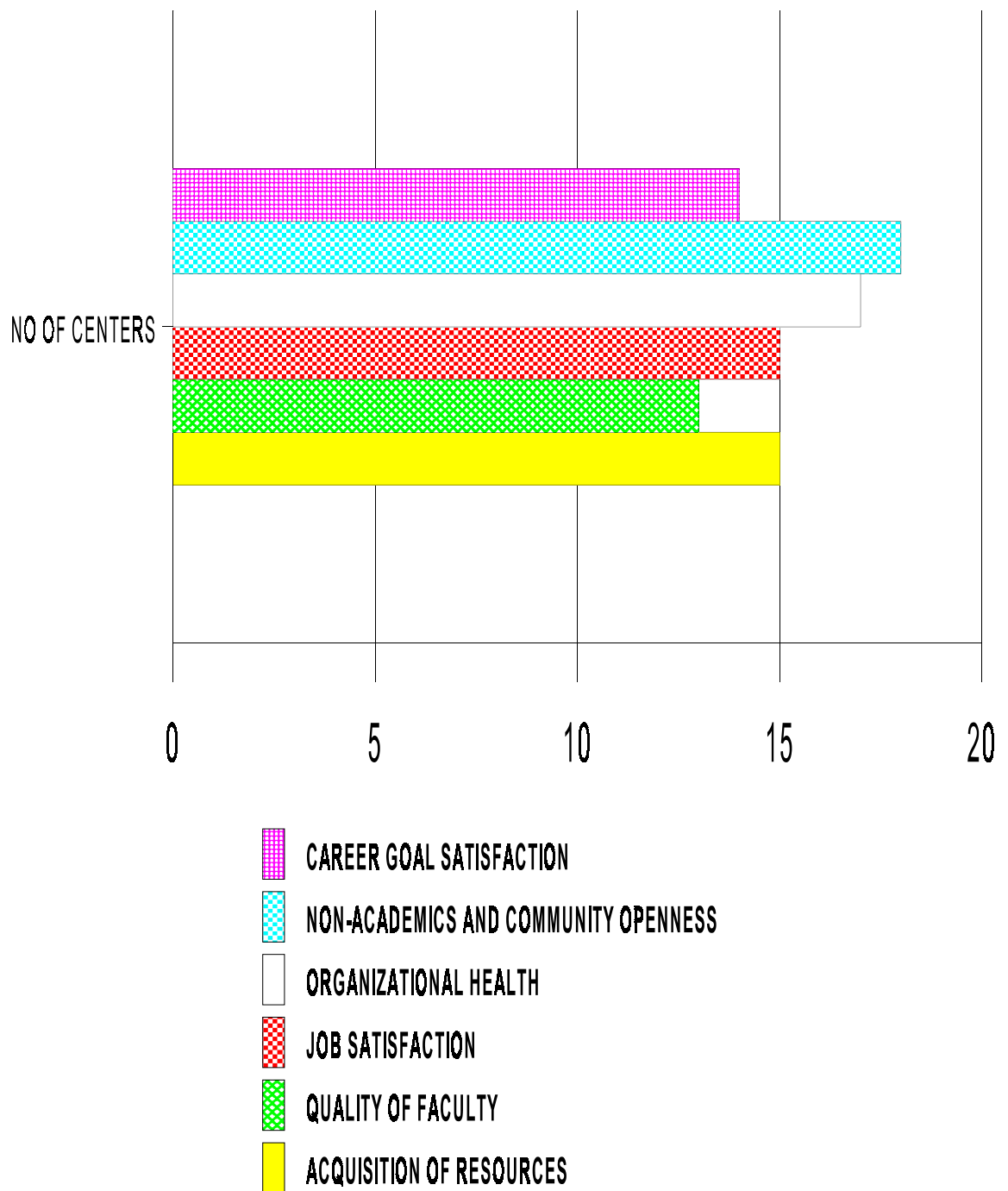


TABLE 5-----NUMBER OF CENTERS EFFECTIVE IN EACH DOMAIN



3. Predictive Models

Multiple regression analysis was used to determine the structural and functional variable models which may predict organizational effectiveness in each of the six domains of organizational effectiveness in gerontology centers. The variables were divided into the following models for analysis:

1. Organizational structure and the dimensions of the external environment

Variables

- a) Relationship of the center to other units
- b) Likelihood that the center will have permanency in the institution
- c) The length of time the center has held its current position in the institution
- d) Type of faculty appointments
- e) Input of the director into tenure and promotion
- f) Whether or not the center has a permanent clerical staff

2. Strategic emphasis of administrators

Variables

- a) leadership style
- b) emphasis placed on job functions of director

3. Organizational goal preferences

Variables

- a) mission (research, instruction, service)
- a) activities at the center
- b) goals

4. Financial indicators

Variables

- a) source of revenues
- b) expenditures
- c) type of budget line
- d) adequacy of revenues and resources

e) stability of funding

5. Organizational demographics

Variables

a) age of center

b) number of permanent faculty

c) number of affiliated faculty

d) type of facility

e) general revenues

f) research revenues

Predictor models (groups of related variables) which were statistically significant emerged for five of the six domains: Acquisition of Resources, Career Goal Satisfaction, Quality of Faculty, Non-academic Faculty, and Staff Job Satisfaction. There were no predictor models for the organizational health domain. The multiple regression analysis used in this section can be found in Appendices VIII-XV.

TABLE 6

DOMAINS OF ORGANIZATIONAL EFFECTIVENESS AND THEIR PREDICTOR MODELS

Domains	Predictor Models
Acquisition of Resources	organizational structure.0001**** financial indicators.0001****
Career goal satisfaction	financial indicators .0504***
Organizational Health	none
Quality of Faculty	organizational goals/activities .0241****
Non-academic	demographics .0024**** organizational goals/goals .0644** organizational goals/mission .0435***
Faculty and staff job satisfaction	organizational goals/mission .0649**

**** <.03 *** .03-.0599** >.0599

Table 5 lists the domains of organizational effectiveness with their corresponding predictor variable models. These predictor models may be used to examine the effectiveness of gerontology centers in future studies. Not all of the variables in a model are significant, but the variables together explain a significant portion (R^2) of the difference of responses in the domain from the mean.

Acquisition of Resources may be predicted using the models of organizational structure and financial indicators. The most important variables to the Acquisition of Resources domain in the organizational structure model are “relationship of the center to the subunits” (.0001) (free-standing), “the likelihood that the center will be permanent” (.0001) (for sure), “the length of time the center has been in its current position within the university” (.0249) (less than 5 years), and “the director’s input into tenure and promotion” (-.0009) (never). The organizational structure model can explain 81% of the variance or the reason why the responses on the variables in the Resource Acquisition domain vary from the mean. The most important variables in the financial indicators model to the Resource Acquisition domain are “type of budget” (.0256) (permanent budget line) and “adequacy of funding” (.0043) (strongly agree). The financial indicator model explains 51% of the variance from the mean. These two models taken together seem to indicate that a center which is effective in resources acquisition will be a relatively new center, secure for the next five years, which is free-standing in the institution and is not strongly affiliated with an academic department so that the director has input into promotion and tenure. It has a fixed budget line and adequate funding.

The predictor model for the Career Goal Satisfaction domain is the financial indicators model. The most important variable to the Career Goal Satisfaction is the funding stability for five year variable (.0064) (strongly agree). Two other variables which are not statistically significant, but which approach significance are “type of budget” (-.1256) (dependent on continuous funding) and “adequacy of funding” (-.0884) (strongly disagree). The financial indicator model

explains 28% of the variance. The significance of this model may indicate that a center effective in career goal satisfaction is an “adaptive” center, one that does not provide professional stability, but one which provides a stepping stone to professional growth.

The predictor model for the Quality of Faculty domain is the service activity model which includes five types of service activities in which a gerontology center might be involved. The three significant variables in this domain are “adult education” (-.0397) (no), “continuing education” (.0339) (yes), and “activities with state agencies” (.0114) (no). The service activity model explains 42% of the variance.

The predictor models for the Non-academic domain are organizational goals (.0644), the mission of the center (.0435), and demographics (.0024). The most important variable in the organizational goals model is the goal of professional development (.0302) (yes) and another variable which approaches significance is acquiring resources (-.0637) (no). This model explains 56% of the variance. The most important variable in the mission of the center model is the mission of instruction (.0461). Since the parameter estimate is positive, the center effective in the Non-academic domain will most likely not rate instruction high as its mission. This model explains 37% of the variance. The most important variable in the demographic model are “date of founding” (.0009), which means the center was founded at an earlier date, “type of facility” (-.0072), which means the center may have its own free-standing building, and “total operating budget” (which would probably be large) (.0149). The demographic model explains 80% of the variance. Centers effective in the Non-academic domain seem to be in many ways the opposite of centers effective in the Resource Acquisition domain, at least in their goals and mission. These centers are older and do not place a lot of importance on acquiring resources (however they have large budgets), their primary mission is not instruction, but they do have professional development a primary goal.

The predictor model for the Faculty and Staff Job Satisfaction is the organizational missions model, and the most significant variable is “mission of

research" (-.0543), which means that a center effective in the Faculty and Staff Job Satisfaction would most likely chose research as its primary mission. The mission model explains 27% of the variance.

4. *Predictive Variables*

A second regression analysis was performed with all of the independent variables and the effectiveness domains. Significant predictor variables emerged for each domain. Table 4 shows each effectiveness domain with predictor models and variables. Regression analyzes can be found in Appendices XVI-XXI. The R squares for individual variables are not large, and they explain only a small part of the variance from the mean, but they can be important indications of effectiveness. Further research can combine these variables into models to explain effectiveness in different ways.

TABLE 6
EFFECTIVENESS DOMAINS AND THEIR PREDICTORS

Domains	Predictor Variables
Acquisition of Resources	adequacy of resources .0001**** adequacy of funding .0007**** stability for 5 years .0008**** type of budget .0024**** likelihood of permanence .0055**** (-) impetus for establishing center .0104**** expenditures/phys plant .0106**** # of permanent faculty .0133**** # of administrative staff .0142**** activity/community projects .0385*** type of facility .0388*** relationship center to units .0449*** mission/research .0481*** job of director-teaching .0488*** (-)
Career goal satisfaction	likelihood of permanence .0106**** (-) job of director-budgeting .0282**** # of permanent faculty .0552*** mission of center vs. institution .0555**
Organizational Health	adequacy of space .0192**** resources faculty use .0529*** % director's time--teaching .0569***
Quality of Faculty	goal--student satisfaction .0048**** (-) director's job--fundraising .0134**** (-) activities--state agencies .0202**** % of director's time--fundraising .0324*** goal--interdisciplinary collaboration .0342***(-)
Non-academic	mission of center vs. Institution .0008**** goal--personal development .0017**** job of director--politics .0088**** goal--academic development .0109**** funding source--endowments .0125**** date of founding .0148**** funding source--federal funds .0152**** (-) goal--acquiring resources .0252**** (-) mission--instruction .0431*** activities--adult education .0556***
Faculty and staff job satisfaction	goal--academic development .0063**** to whom the director report .0074**** mission--instruction .0145**** % director's time--politics .0175**** goal--community interaction .0241**** (-) activities--state agencies .0250**** (-) activities--community projects .0343*** (-) relationship of director & subunits .0347*** type of director appointment .0354*** adequacy of space .0382***

**** <.03; *** .03-.0599; (-) negative parameter estimate, below the mean

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

A. Statement of the Problem

Organizational effectiveness in gerontology centers and institutes in American universities and colleges has not been systematically studied. This exploratory study focuses on characteristics of gerontology institutes and centers at American universities and colleges and organizational effectiveness. It determines characteristics of gerontology institutes and centers that can explain differences in organizational effectiveness. Since this study is exploratory, no hypotheses is offered.

B. Research Procedures

Part A of the survey questionnaire (Appendix II) was designed to collect characteristics of each gerontology center/institute. This questionnaire was sent to directors of 96 gerontology centers and institutes listed in the National Directory of Gerontology and Geriatric Programs. Nine gerontology centers were eliminated because they no longer were in existence, leaving 87 for analysis. The characteristics of gerontology centers were gathered from literature on institutes and centers and literature on gerontology centers and organized under four factors: 1) organizational structure and external environment, 2) strategy of administrators, 3) organizational goal preferences, and 4) institutional demographics.

Part B of the survey questionnaire (Appendix III) was created from questions from the survey questionnaire used in a study by Kim Cameron (1981) to explore organizational effectiveness of higher education institutions, and was adapted for use in this project. Cameron's questionnaire was designed to focus on organizational effectiveness dimensions of colleges and universities and therefore minor word changes had to be made to adapt it to gerontology centers. The questionnaire asks respondents to rate the extent to which a gerontology

center is typified by certain characteristics of effective centers. Part B was sent to the directors of gerontology centers as well as other administrators and faculty members associated with the center and recommended by the director.

A pilot study was done with interdisciplinary centers at West Virginia University. Adjustments to the questionnaire were made as a result of the pilot study.

Forty-two directors of gerontology centers returned Part A and Part B of the questionnaire (48%) and 72 (59%) other administrators and faculty members associated with the centers returned Part B of the questionnaire.

The data were analyzed in the following way:

1. Factor analysis was used with data from Part B of the questionnaire to determine domains of effectiveness of gerontology centers.
2. Cronbach Coefficient Alpha Correlations were run on each of the factors to determine if they should remain in the analysis.
3. A median analysis was performed to determine which gerontology centers were effective in each of the domains of organizational effectiveness. Centers whose mean scores on each of the domains were above the median were included in each domain group.
4. Multiple regression analysis was used to determine structural and functional models of institutions of higher education which may predict the domain of effectiveness of a gerontology center. Each of the models was analyzed separately.
5. Regression analysis was used to determine predictor variables for each of the domains of organizational effectiveness.

C. Research Questions

1. What are the domains of organizational effectiveness of gerontology centers?
2. What are the structural and functional models (i.e., organizational/external environment, strategic emphasis,

organizational goal preferences, financial indicators, demographics) which may predict the domain in which a gerontology center will be effective?

3. What are the specific characteristics of gerontology centers that may predict the domain in which a gerontology center will be effective?

D. Conclusions

1. *What are the domains of organizational effectiveness of gerontology centers?*

Using a factor analysis of the ratings of organizational effectiveness in Part B of the questionnaire, this study found six areas or domains of organizational effectiveness for gerontology centers. They are 1) *non-academic and community openness*, 2) *career goal satisfaction*, 3) *resource acquisition*, 4) *organizational health*, 5) *quality of faculty*, and 6) *faculty and staff job satisfaction*.

a. Non-academic and Community Openness

There were 18 gerontology centers that were found to be effective in this domain. Gerontology centers which are effective in the non-academic" domain excel in three areas: student personal development, alumni affairs, and community relationships. This domain corresponds to Cameron's dimensions of *student personal development* and *systems openness and community interaction*, and his domain of *external adaptation* which deals with student career development, system openness and community interaction. The literature supports the non-academic aspect of gerontology centers and it is the most important factor separating the more recent issue-related centers from earlier centers (1960s and 1970s) which were more research oriented. Gerontology centers are involved with community agencies, businesses, state agencies and elder advocacy groups (Rueben & Buck, 1994; Euster & Reaves, 1995; Watt & Meredith, 1995).

One recent effort to combine academics with its practical application is called service-learning. Service-learning has begun to make inroads into

gerontology programs. For example, the Association of Gerontology in Higher Education and Generations Together, University of Pittsburgh offered grants in 1998 to gerontology programs interested in incorporating intergenerational service-learning into existing gerontology classes.

The most recent literature on centers in higher education focuses on the link they play between industry and higher education (Steiner, 1995; Bitting & Spriggs, 1995). This link represents, for industry, an opportunity to train potential personnel in specific aspects of their operation and to be involved in state-of-the-art research, and it gives institutions of higher education, applied settings and new funding opportunities. Gerontology centers can offer to industry innovative ideas in human resources, management and design of facilities for an aging workforce.

b. Career Goal Satisfaction

There were 14 gerontology centers found to be effective in this domain. Gerontology centers which are effective in the “career goal satisfaction” domain excel in successfully linking students with employment opportunities associated with their course of study and in enhancing the career opportunities of faculty members and administrators. Students often take gerontology courses to enhance their major and to make themselves more employable in their field. The career goal satisfaction domain, as it pertains to faculty and staff, may be an indication that gerontology centers are adaptive institutes as described by Norman (1971) because they are springboards to better academic careers. That is, as with adaptive institutes, gerontology centers were generally created in response to funding initiatives, are continually undergoing change; are redefining goals, are securing and releasing staff, and are initiating and terminating projects. Gerontology centers, like other adaptive centers and institutes in higher education, may be “jumping grounds” to higher positions in academia and administration. Therefore, a gerontology center which is able to enhance the career opportunities of its students and staff will be considered to be effective in the career goal satisfaction domain.

b. Resource Acquisition

There were 16 gerontology centers found to be effective in this domain. Gerontology centers which are effective in the “resource acquisition” domain have the ability to obtain financial resources, can attract a leading faculty and students, and can obtain other needed resources. Cameron (1981b) included resource acquisition under the academic domain because acquiring resources, both financial and academic, is essential to providing a successful academic program. Gerontology centers are funded, to a large extent, with external funds, and their programs reflect the type of funding they receive, whether they are programmatic or research programs.

In Peterson’s study (1994) only 50% of the responding programs had a budget to administer and most of the budgets were modest. This study found a larger range of total operating budgets. Of the responding institutions, 8% had no funding, 22% had funding under \$10,000 a year, and 32% had a budget under \$100,000. The median was \$175,000 and the highest total operating budget was \$2,700,000. The range of the total operating budgets of the 15 gerontology centers which were found to be effective in resource acquisition in this study was \$10,000 a year to \$2,700,000. The median was \$550,000 and the average operating budget was \$864,467. It seems that most of the gerontology centers which scored high in resource acquisition were centers that were able to accrue large operating budgets, most likely from research grants.

d. Organizational Health

There were 17 gerontology centers found to be effective in this domain. A gerontology center which is effective in the “organizational health” domain is one in which members are able to work and plan across disciplines without friction and in which its members are rewarded equitably. In these centers, communication is open and authentic and the general social environment is cooperative, supportive and mutual, and disagreements are resolved face to face. The organization runs smoothly and the atmosphere is goal-directed. Since

centers are more fluid and less secure than academic departments, faculty members who come to work there do so for reasons other an opportunity to rise within their discipline. Effectiveness in organizational health is important for gerontology centers, as well as other interdisciplinary centers, who for the most part, must attract faculty members away from academic departments or at least entice them to spend some of their teaching and research time at the center, often on a pro bono basis. This domain corresponds most closely to Cameron's morale domain in which he includes student and staff satisfaction and organizational health.

e. Quality of Faculty

There were 13 gerontology centers found to be effective in this domain. Gerontology centers which are effective in the "quality of faculty" domain have faculty members with national reputations, are publishing books or articles, are teaching at "the cutting edge" and are engaged in professional development activities. For most of the history of gerontology centers, faculty members have come to the centers from a variety of academic disciplines (e.g., sociology, psychology, political science, biology, medicine, nursing, social work, public administration) because there were no doctoral programs in gerontology. Today there are four Ph.D. programs in gerontology and gerontology centers are beginning to recruit from these programs. Still gerontology centers are for the most part, dependent on finding professors from other disciplines who are interested in teaching and doing research in gerontology. The Gerontological Society of America, the National Society of Aging and the Association for Gerontology in Higher Education are three organizations which give faculty members in gerontology a forum for presenting research.

f. Faculty and Staff Job Satisfaction

There were 15 gerontology centers found to be effective in this domain.

A gerontology center which is effective in the “faculty and staff job satisfaction” domain is one in which good work is rewarded, employees feel informed about what is going on, faculty talents and expertise are used to the maximum, there is opportunity for development, and the administration is willing to change, adapt and move forward progressively. These faculty and staff job satisfaction characteristics found at gerontology centers are often lacking in academic departments. Interdisciplinary centers are able to move in directions not available to academic departments which must adhere to disciplinary standards. Faculty members who are not recognized for good work within their departments may have the opportunity to contribute a great deal in an interdisciplinary setting.

This study shows that gerontology centers are typified by unique patterns of organizational effectiveness and that the patterns represent effectiveness in both internal and external effectiveness. Internal effectiveness refers to effectiveness in internal procedures and operations such as bureaucratic expectations, informal groups, leadership decisions, communication processes, and individual needs. External effectiveness refers to effectiveness in the way the center deals with entities or relationships outside of the center such as other units at the university, associated faculty, and federal, state and community groups. Among the 42 gerontology centers in this study, there were 24 unique patterns of effectiveness across the six domains, including patterns in the internal domains only, the external domains only, and a mixture of the external and internal domains. The internal domains include “career goal satisfaction,” “organizational health, and faculty and staff job satisfaction.” The external domains include “resource acquisition,” “quality of faculty and professional development,” and “non-academic and community openness.”

Several of the gerontology centers stood out in the number of domains in which they were effective. One institution was effective in six of the domains, one in five, and six in four domains. Among those centers that were highly effective were: Brandeis University, Penn State University, the University of Utah, Virginia Tech, the Scripps Center at the University of Miami, American River College,

Boston University, and Utica College. The fact that a number of these are and have been leaders in gerontological education, is verification of the findings of this study.

2. *What are the structural and functional characteristics of centers which may predict the domain in which a gerontology center will be effective?*

Multiple regression analysis was used to determine which structural and functional characteristics can be used to predict the domain of effectiveness in which a gerontology center will be effective. The predictive variables were analyzed in models of structure and function and were analyzed separately. The structural and functional models which were analyzed in this study include:

- organizational/external environment
- strategic emphasis
- organizational goal preferences (goals, mission, activities)
- financial indicators
- organizational demographics

a. Organizational structure and the dimensions of the external environment

The predictive variables in this category include:

- relationship of the center to other units
- likelihood that the center will have permanency in the institution
- the length of time the center has held its current position in the institution
- type of faculty appointments
- input of the director into tenure and promotion
- whether or not the center has a permanent clerical staff
- strategic emphasis of administrators
- leadership style

- emphasis placed on job functions of director

When all of these predictive variables were included in the model, there was no significant regression with any of the domains, but when strategic emphasis of administrators, leadership style, and emphasis placed on job functions of director were dropped from the model there was a significant regression (.0001, $R^2=.8155$, Adj $R^2=.7540$) between the domain of *resource acquisition* and organizational structure and the dimensions of the external environment. There were four significant variables in this model:

- relationship of the center to other units
- likelihood that the center would remain permanent
- the length of time the center had the same position within the university
- input of the director into tenure and promotion

The parameter estimate for “relationship of the center to other units” was negative (1=free standing; 2=affiliated, but separate from the university; 3=within a college; 4=within a department; 5=subunits of a center), indicating that a center was more effective in resource acquisition the more independent it was from the institution.

The parameter estimate for “likelihood of the center being permanent (1=not likely; 5=for sure) was positive, indicating that the center would be more effective in the domain of resource acquisition if it was likely that the center would remain in the institution.

The parameter estimate for “length of time the center has had the same position in the institution” was positive (1=less than 5 years; 4=since its establishment), indicating that a center would be more effective in resource acquisition if it had maintained the same position for a longer period of time.

Finally, the parameter estimate for “input of the director into promotion and tenure” was negative (never=1; sometimes=2; always=3), indicating that for centers who are effective in resource acquisition, their directors do not have input

into promotion and tenure. This further supports the likelihood that the center will be free standing or affiliated but not a part of the institution.

b. Financial Indicators

The predictive variables for the Financial Indicators category include:

- type of budget line
- adequacy of funding
- stability of funding for five years

There was a significant regression (.0001, $R^2=.5080$, Adj. $R^2=.4646$) between the domain of *resource acquisition* and financial indicators. One of the variables which was significant within this model was: “type of budget” (1=permanent; 2=renewable by funding source; 3=dependent on host; 4=other). The parameter estimate was positive, indicating that a center which is effective in resource acquisition is more apt to be dependent on some non-permanent source of revenue.

The other variable within this model which was significant was “adequacy of funding” for which the parameter estimate was positive, indicating that a center which is effective in resource acquisition will have adequate funding.

There was also a significant regression between the domain of *career goal satisfaction* and financial indicators. The significant variables in the model were “type of budget” (permanent/institutional=1; reviewed by funding source=2; host unit=3; other=4), and “adequacy of funding” (strongly agree=1; strongly disagree=5). Both variables had positive parameter estimates indicating that as a center moves away from permanent, institutional funding toward some other form of funding, and as its constituencies view it as not having adequate funding, it becomes more effective in *career goal satisfaction*. This finding may indicate that centers that are not effective in career goal satisfaction are less stable financially and therefore faculty stay there only to meet career goals.

b. Organizational Goal Preferences

This category was divided for analysis into three parts: goals, mission, and activities.

Goals

- student satisfaction
- academic development of students
- personal development of students
- faculty/staff satisfaction
- professional development of faculty and staff
- community interaction
- acquiring resources

There was a regression that approached significance with the goals of gerontology centers and the domain of *non-academics* (.0644, $R^2=5606$, Adj $R^2=3408$). The significant variable within the model was “the goal of professional development of faculty and staff” (.0302) and a near significant variable (.0637) “the goal of acquiring resources.” The professional development goal had a positive parameter estimate indicating that if a center was effective in the non-academic domain, it would rank professional development of faculty and staff high on its list of goals. However, the parameter estimate of the “acquiring resource” variable was negative, indicating that centers effective in non-academics and community involvement would not rank acquiring resources high on a list of goals.

Mission

- instruction
- service
- research

There was a significant regression between the *non-academic* domain and the mission of the gerontology center (.0435, $R^2=.0435$, Adj $R^2=.2610$). The significant variable in this model is “the mission of instruction” and the parameter estimate is positive, indicating that a center which is effective in non-academics and community involvement will rank instruction high on its list of missions

There was also a near significant regression between the domain of *faculty and staff job satisfaction* and the mission of the gerontology center (.0649,

$R^2=.2651$, $Adj R^2=.1692$). The significant variable in this model is the director's job function of research (.0543) and the parameter estimate is negative, indicating that if a center is effective in faculty and staff job satisfaction, the director will not rank research high on his/her list of job functions.

Activities

- adult education
- continuing education
- activities with state agencies

There was a significant regression between activities of gerontology centers and the domain of *quality of faculty* (.0241, $R^2=.4245$, $Adj R^2=.2937$). There were three significant variables: "adult education," "continuing education," and "activities with state agencies." Continuing education and activities with state agencies had positive parameter estimates, indicating that centers which are effective in the "quality of faculty" domain will rank continuing education and activities with state agencies high on their list of activities. However the parameter estimates with "adult education" were negative, indicating that the same centers would rank adult education low on their list of activities.

c. Organization Demographics

- date of founding
- type of faculty
- total operating budget

There was a significant regression with the domain of *Non-Academics and Community Involvement* and the demographics of the gerontology centers (.0024, $R^2=.7994$, $Adj. R^2=.6900$). The significant variables in this model were: "date of founding," "type of facility," and "total operating budget." The variables of date of founding and the total operating budget, had positive parameter estimates and therefore indicated that centers who were effective in non-academics and community involvement were founded more recently and had a large operating budget. These results agree with the literature on centers which indicates that earlier centers emphasize research, while centers created recently emphasize

activities outside the academic institution, such as alliances with industry and state organizations.

3. What are the specific characteristics of gerontology centers that may predict the domain in which a gerontology center will be effective?

Single regressions were done with each domain of organizational effectiveness and each of the predictor variables found in Part A of the survey. These variables with their corresponding domains and predictor variables are listed in Table 6

a. Acquisition of Resources

Predictor variables for the domain of “acquisition of resources” are ones which deal with the adequacy of resources and funding, stability and permanence of the center, size of the center measured in the number of faculty and administrative staff, the independence of the center as measured by the type of facility and the relationship of the center to other units, the mission of research and the percentage of the director’s time not spent on teaching.

b. Career Goal Satisfaction

Predictor variables for the “career goal satisfaction” domain are ones that deal with the likelihood of the center’s permanence (not permanent), the percentage of the director’s job spent in budgeting activities, the number of faculty, and the synergy between the mission of the center and the mission of the institution.

c. Organizational Health

Predictor variables for the “organizational health” variable include the adequacy of the physical space of the center, the ability of faculty to use the resources of the center for their education and research pursuits, and the percentage of time the director spends teaching.

d. Quality of Faculty

Predictor variables for the “quality of faculty” domain include the goal of student satisfaction not being a top priority and the director not wanting to make fundraising a priority but finding s/he has to do a lot of fundraising.

e. Non-academic and Community Openness

Predictor variable for the “non-academic and community openness” domain include goals of personal and academic development, but not a goal of acquiring resources, funding from endowments, not from federal funds, a mission of instruction, synergy between the goals of the center and the goals of the institution, involvement in adult education activities, and a less recent date of founding of the center.

This study showed gerontology centers typified by success in one effectiveness domain may have different organizational characteristics than gerontology centers with success in another organizational effectiveness domain. Using each of the predictor models and individual variables or organizational characteristics, it is possible to describe a gerontology center which is likely to be effective in each of the domains. It should be noted that some of the characteristics that relate to overall effectiveness in each domain seem contradictory or incompatible with each other making it difficult at best and at worst inappropriate to construct organizational models. The following vignettes are attempts to describe a gerontology center that is effective in each of the domains based on the significant variables.

Acquisition of Resources

A gerontology center that is effective in the domain of acquisition of resources is one which began, not by the impetus of faculty members, but by the impetus of forces outside of an academic unit, either from central administration or from the state. These centers tend to be free standing and occupy their own facility. The center is perceived by its constituency to have adequate funding and resources and to be stable within the institution; that is, constituents believe it is likely to continue to exist for at least the next five years. The center’s operating budget comes from nonpermanent, non-institutional sources. Resources include

a large group of permanent faculty members associated with the center and a large administrative staff. These gerontology centers are governed from the top down; administrators, not committees decide on the activities of the center. The director does not see him/herself as a teacher. The center also has a service component.

Career Goal Satisfaction

Gerontology centers which are effective in the domain of career goal satisfaction are centers which are not perceived by their constituents as having permanence within the institution. However, they do have a large number of permanent faculty members associated with, but not permanently employed at, the center. The director sees a large portion of his/her job as budgeting. The unstable character of these centers seems to be what enables them to enhance the careers of faculty, administrators, and students because individuals are able to use the resources of the center (research projects, networks, facilities) for their personal projects and then move on in their careers.

Organizational Health

Gerontology centers which are effective in the domain of organizational health are centers have adequate space and resources for faculty associates to use for their gerontology pursuits, rather than having to use space and resources in their own academic departments. The directors of these centers spend a large portion of their time teaching.

Quality of Faculty

Gerontology centers which are able to attract quality faculty members are centers that have the mission of research and do not rank student satisfaction or interdisciplinary collaboration high on their list of goals. The directors of these centers do not see their job as being a fund raiser, but they do spend a large portion of their time fund raising.

Non-Academic and Community Openness

These gerontology centers were founded earlier than other centers and therefore are probably better established in the institution. They have low

federal funding and high funding from endowments. They spend little of their budget on research and acquiring resources is low on their list of goals. The top mission of these centers is instruction and a major activity is adult education. High on their list of goal priorities are personal development of the director and academic development.

Faculty and Staff Job Satisfaction

Gerontology centers which are effective in faculty and staff job satisfaction are centers that are independent of academic departments and report to a provost rather than to an academic dean or chairperson. The director has direct supervision over the subunits of the center. However, the director is likely to have a tenured appointment from an academic department. There is adequate space in the center's facility for faculty to do their work. The directors of these centers spend a lot of time in political activities. The number one mission of these centers is instruction and an important goal of these centers is academic development. Community interaction does not rank high on a list of goals and these centers tend not to be involved in activities with the community or with state agencies.

D. Implications

1. Implications

This study has implications for:

a. Identifying the type of evaluative methodology that should be used to study effectiveness of centers in higher education.

This study supports the assumption that organizational effectiveness in gerontology centers is multi-domain construct and should be evaluated using an integrated approach. The use of only one model to measure effectiveness would limit the evaluation and create the possibility of missing important factors. By using an integrated approach, this study identified six domains of effectiveness of gerontology centers in 24 different patterns. Each of the four major approaches to effectiveness evaluation are satisfied by at least one of the domains of

effectiveness found in this study: the goal approach would have identified effectiveness in the “quality of faculty” domain; the systems approach would have identified effectiveness in the “resource acquisition” domain; the process approach would have identified effectiveness in the “organizational health” domain, “faculty and staff job satisfaction” domain, and the “career goal satisfaction” domain; and the ecological or participant satisfaction approach would have identified centers effective in the “non-academic and community openness” domain, the “faculty and staff job satisfaction” domain, and the career goal satisfaction” domain. If we had taken a single approach to studying effectiveness in gerontology centers, for instance, the goal approach, we might have concluded that the center was effective in attracting quality faculty, but would have missed that the center was also effective in the “non-academic and community openness” and the “faculty and staff job satisfaction” domains. Similarly, if we had taken a systems approach, and effectiveness was measured only on the basis of the center’s ability to acquire resources, centers effective in the “organizational health” and “career goal satisfaction” domains would not have been identified.

b. Studying the evolution of centers in higher education.

Demographic information, specifically the date of founding, was helpful in predicting effectiveness of gerontology centers in the “non-academic and community openness” domain, a finding that supports studies that have found that the new breed of social science, issue-related centers, founded in the 1970s and later, are more apt to be involved in activities outside the university with industry and community groups than are centers which were founded earlier.

Recent literature indicates that academic research centers have been looked upon as vital links between industry and higher education (Steiner, 1995; Bitting, & Spriggs, 1995). In addition, federal and state government initiatives have been sponsoring research that is based upon "real world" problems and are encouraging industry-academic collaboration. This study confirms that the more recent a center has been founded, the more likely it is that it is connecting with

industry and community groups in research, technology transfer, education and evaluation.

c. Understanding the similarities and dissimilarities between centers and other units in higher education.

This study showed that centers in higher education combine characteristics of academic and administrative units. This is illustrated by the fact that the six domains found in this study correspond to, but are not identical to, the dimensions or domains found in Cameron's studies of organizational effectiveness in institutions of higher education (Cameron, 1978 & 1981b) and those found in other studies of organizational effectiveness in higher education that reproduced Cameron's study in other countries and with non-academic, administrative units. Using an integrated approach in his 1981 study, Cameron identified four domains of organizational effectiveness including *external adaptation*, which deals with student career development, system openness, and community interaction; *morale*, which is concerned with student educational satisfaction, administrator satisfaction, and organizational health; *academic orientation*, which deals with student academic development, professional development, quality of faculty, and ability to acquire resources; and *extracurricular*, which deals with student personal development. This study identified six domains of organizational effectiveness, including the quality of faculty and resource acquisition domains that correspond with the academic orientation domain; faculty and staff job satisfaction and career goal satisfaction domains, which correspond to the morale domain; organizational health and non-academic and community involvement domains which correspond to the external adaptation domain.

In addition, Cameron and other scholars of organizational effectiveness have noted that in most cases, a higher education institution will be effective in either internal or external domains, but not both. This study shows that gerontology centers can be effective in both internal and external domains. Perhaps successful involvement in internal and external areas is one way in which centers differ from other units in higher education. Although seven centers

in this study had an effectiveness pattern that represented only external effectiveness and nine centers had effectiveness patterns that included internal effectiveness domains only, nineteen centers had domain patterns which contained both external and internal effectiveness domains. For the most part, organizational structure and financial indicators predicted organizational effectiveness in the internal domains: “acquisition of resources,” “career goal satisfaction,” and “organizational health.” Organizational goals, activities, and mission and demographics predict the external domains: “quality of faculty,” and “non-academic and community involvement.” An exception to this pattern is that organizational goals, activities, and mission predict “faculty and staff job satisfaction”, an internal domain.

Centers are fluid organizations that have the potential to meet the changing needs of universities in ways that academic departments can not. It is important to understanding the place of centers within the institution and their relationship with community, state, and national organizations.

d. Understanding the role of negative organizational characteristics in organizational effectiveness.

Most evaluations of organizational effectiveness look at positive outcomes and determinants of success. This study illustrates that such an approach might miss important areas of effectiveness because the characteristics of centers which predict effectiveness in a domain are not necessarily positive characteristics. It seems that at times unstableness and uncertainty breed positive results. For instance, this study found that financial indicators can be used to predict effectiveness in both acquisition of resources and career goal satisfaction. However, effectiveness in the acquisition of resources domain is predicted with positive financial indicators, while career goal satisfaction is predicted with negative financial indicators. Centers that are effective in acquisition of resources have adequate funding and a permanent budget line while centers that are effective in career goal satisfaction do not have adequate funding and are dependent on their host organizations to continue their funding.

What is it about financial instability that aids a center in being effective in career goal satisfaction? Is it unstableness that gives professionals permission to stay only as long as they need to enhance their own careers through research, directorship, or an entrepreneurial pursuit and then leave? This is a question for future study.

This study also illustrates the fact that if we measure effectiveness by assessing a center's ability to reach its goals, but don't examine why a center chooses or does not choose a particular goal, we may miss the importance of not selecting a particular goal in determining a center's effectiveness. For instance, gerontology centers which are effective in the "non-academic" domain are centers that do not place the goal of acquiring resources high on their list of goals. Why? Perhaps it is because they tend to be older centers with high operating budgets, funded by endowments rather than renewable grants, more established in the institution, and free to pursue non-academic, community activities, without the pressure of bringing in outside funds.

E. Recommendations

1. Recommendations for Further Studies

Further studies should be designed to answer the following questions:

- a. Which domains of organizational effectiveness are unique to centers in higher education?

This study looked at the domains of organizational effectiveness of gerontology centers. There are many other types of centers at academic institutions ranging from social science/issue related centers such as women's studies, African American studies, and American studies to business related centers, health science centers, and high technology centers. Further research should look at other types of centers to determine if the domains identified in this study can be extended to the population of centers in higher education.

- b. Can gerontology centers be divided into groups of centers that differ significantly with regard to the domains of

effectiveness in which they excel?

In Cameron's research into organizational effectiveness of institutions of higher education, he used discriminant analysis to divide institutions into four types (scholarly-high morale, scholarly-medium morale, externally oriented, mediocre) that differed significantly in the domains of effectiveness in which they excel. This procedure was beyond the scope and expertise of this study, but organizational groups of gerontology centers, and other types of centers, might be pursued by other researchers.

c. Can centers be effective in both internal and external domains?

According to a hypothesis presented by Dubin (1976) organizations will be effective in either internal domains or external domains, but not both. Cameron's research (1981b) supports this hypothesis. However, this study of gerontology centers cannot confirm this hypothesis. Instead, it appears that most gerontology centers excel in both internal and external domains. The number one domain for gerontology centers is "non-academic and community openness" (external) and the number two domain is "organizational health" (internal). Further research is required to see if this might be a characteristic of centers which distinguished them from other university units.

2. Recommendations for Gerontology Centers

a. Centers that wish to increase their effectiveness in organizational health and faculty and staff satisfaction should concentrate their efforts on activities which focus internally rather than out into the community. Teaching (rather than research or service) seems to be the activity and mission of choice.

Centers which are effective in organizational health and faculty and staff satisfaction have one characteristic in common — they are not involved in activities with state agencies and do not place community interaction high on their

list of goals. It seems that focusing internally, preferably on teaching, is the key to a good work environment at gerontology centers.

b. Centers that wish to increase their effectiveness in acquiring resources and attracting quality faculty members, should emphasize research as a mission of their center.

Centers which are effective in acquiring resources, including quality faculties, are centers which have research as their number one mission and which spend a large portion of their budget on research. This seems like a circular effect; quality faculty members do research and attract research dollars. However, changing a center's focus from instruction or service to research could increase revenues which could then fund additional instruction and service.

c. Centers that wish to increase their effectiveness in acquiring a quality faculty and enhancing the career goals of both faculty and staff might consider implementing a looser form of administration which includes nominal supervision by the director.

Centers which scored high on the domains of Quality Faculty and Career goal satisfaction were centers which were less structured organizationally and which had directors which did not employ a top-down administrative style. Faculty members, who tend to be independent, seem to prefer an environment where they are free to pursue their own interests without interference from administration.

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APPENDIX A

LIST OF GERONTOLOGY CENTERS AND INSTITUTES AT COLLEGES AND UNIVERSITIES IN THE UNITED STATES

- | | |
|---|-------------------------------|
| 1. University of Alabama | Center for the Study of Aging |
| 2. University of Alabama, Birmingham | Center for Aging |
| 3. University of Arizona | Arizona Center on Aging |
| 4. University of Arkansas, Little Rock | Center on Gerontology |
| 5. American River College | Gerontology Center |
| 6. California State University, Los Angeles | Roybal Institute for Applied |

7. California State University, Sacramento	Gerontology
8. University of California, Berkeley	Gerontology Program and Center
9. University of California, Davis	Center on Aging
10. San Diego State University	Center for Aging and Health
11. University of Santa Clara	University Center on Aging
12. University of Southern California	Center on Aging
13. University of Connecticut	Andrus Gerontology Center
14. University of Colorado, Colorado Springs	Travelers Center on Aging
15. University of Denver	Center on Aging
16. Saint Joseph College	Institute of Gerontology
17. University of the District of Columbia	Institute in Gerontology
18. Bethune Cookman College	Institute for Gerontology
19. Florida International University	Center for Aging
20. Florida State University	Southeast Florida Center on Aging
21. University of Florida	Pepper Institute on Aging and Public Policy
22. University of Miami	Center for Gerontological Studies
23. Emory University	Center for Adult Development and Aging
24. Georgia State University	Center for Geriatrics
25. University of Georgia	Gerontology Center
26. University of Hawaii, Manoa	Gerontology Center
27. Illinois State University	Center on Aging
28. Northwestern University	Center for the Study of Aging
29. Ball State University	Buehler Center on Aging
30. University of Evansville	Center for Gerontology
31. Indiana University at Bloomington	Center for Gerontology
32. University of Iowa, College of Medicine	Center on Aging and Aged
33. Kansas State University	Center on Aging

34. University of Kansas	Gerontology Center
35. University of Kansas, Medical Center	Center on Aging
36. University of Kentucky	Sanders-Brown Center on Aging
37. University of Louisville	Urban Center on Aging
38. Boston University	Gerontology Center
39. Brandeis University	Policy Center on Aging
40. University of Massachusetts, Boston	Gerontology Institute and Center
41. University of Michigan, Ann Arbor	Institute of Gerontology
42. Wayne State University	Institute of Gerontology
43. University of Missouri, Kansas City	Center on Aging
44. University of Nevada, Reno	Graham & Jean Stanford Center on Aging
45. Rutgers, New Brunswick	Institute for Health/Health Care Policy/Aging Research
46. University of New Mexico	Center on Aging
47. City University of New York, Hunter College	Brookdale Center on Aging
48. Columbia University	Center for Geriatrics/Gerontology
49. Fordham University	Third Age Center
50. Long Island University--CW Post	Center on Aging
51. New York Medical College	Center for the Study of Aging
52. State University of NY at Albany	Ringel Institute of Gerontology
53. State University of NY at Buffalo	Multidisciplinary Center on Aging
54. Syracuse University	Policy Center on Aging
55. Utica College of Syracuse	Institute of Gerontology
56. Duke University	Center for the Study of Aging and Human Development
57. Wake Forest University, Bowman Gray School of Medicine	J. Paul Sticht Center on Aging
58. University of North Dakota	Resource Center on Gerontology

59. University of Akron	Institute for Life-Span Development and Gerontology
60. Case Western Reserve University	University Center on Aging and Health
61. Miami University of Ohio	Scripps Gerontology Center
62. Portland State University	Institute on Aging
63. Pennsylvania State University	Gerontology Center
64. University of Pennsylvania	Institute on Aging
65. Temple University	Institute on Aging
66. West Chester University of PA	Gerontology Center
67. Brown University	Center for Gerontology and Health Care Research
68. Rhode Island College	Gerontology Center
69. Meharry Medical College	Center on Aging
70. Abilene Christian University	Center for the Study of Aging
71. Baylor University	Institute of Gerontological Studies
72. Baylor College of Medicine	Huffington Center on Aging
73. University of North Texas, Hlth Sc. Ctr.	Texas Institute for Research and Education on Aging
74. University of North Texas	Center for Studies in Aging
75. University of Texas Hlth Sc. Center	Center on Aging
76. University of Texas--Galveston	Center on Aging
77. University of Utah	Gerontology Center
78. University of Vermont	Center for the Study of Aging
79. Virginia Commonwealth University	Virginia Center on Aging
80. Virginia Polytechnic Institute & State University	Center for Gerontology
81. University of Washington	Institute on Aging
82. West Virginia University	Center on Aging
83. University of Wisconsin	Institute on Aging
84. University of Wisconsin, Milwaukee	Institute on Aging & Environment

- | | |
|---|---------------------------------|
| 85. Incarnate Word College | Institute on Aging |
| 86. University of South Florida | Suncoast Gerontology Center |
| 87. University of Illinois, at Urbana-Champaign | Office of Gerontology and Aging |

APPENDIX B

PART A

CHARACTERISTICS OF CENTERS AND INSTITUTES

Please answer the following questions about your gerontology center.

- 1. Name of institute/center _____
- 2. Address _____

- 3. Director (name and title) _____
- 4. If not director, name and title of person completing this survey _____
- 5. Date of founding of the center _____
- 6. Degrees offered and number of students enrolled in each degree program
 ____ Associate Degree ____ Baccalaureate Degree
 ____ Masters Degree ____ Doctoral Degree
 ____ Professional Certification ____ Other
(specify) _____
- 7. Certificates offered and number of students enrolled in each certificate program
 ____ Undergraduate Certificate ____ Graduate Certificate
 ____ Practitioner Certificate ____ Other
(specify) _____
- 8. Subunits of the center (for example: research unit; education unit; outreach unit)

- 9. Number of permanent faculty members _____
- 10. Number of affiliated faculty members _____
- 11. Number of permanent administrative staff _____
- 12. Number of permanent clerical staff _____
- 13. Type of facility
 Free-standing building _____
 Offices in building belonging to a college or department _____
 Building/offices off-campus _____
 No permanent space except director's office _____
- 14. Total operating budget for the center _____
- 15. Total amount of sponsored research _____

CHARACTERISTICS OF THE PARENT INSTITUTION

Please answer the following questions about the university or college in which your gerontology center or institute is located.

16. Name of parent institution _____
17. Affiliation
- PRIVATE (junior/2-yr) _____
- PRIVATE (4-year college) _____
- PRIVATE (university) _____
- PUBLIC (community/2-year) _____
- PUBLIC (4-year college) _____
- PUBLIC (land-grant university) _____
- PUBLIC (university) _____
18. Total university/college enrollment _____
19. Highest degree offered _____
20. Number of doctoral degrees offered last year _____
21. Library holdings _____
22. Number of colleges _____
23. Number of professional schools _____
24. Total number of faculty _____
25. Total number of faculty with doctoral degrees _____
26. Total general expenditure _____

ORGANIZATIONAL STRUCTURE AND DIMENSIONS OF EXTERNAL ENVIRONMENT

Please answer these questions with regard to your gerontology center or institute.

27. Choose the description which best describes the relationship of your institute or center to other units in your institution:
- ___ free-standing
- ___ within an academic college (i.e. arts and sciences)
State which one _____
- ___ within an academic department
State which one _____
- ___ affiliated, but separate from university
or college
- ___ subunit of a center or institute (i.e. Center on Aging within the Center for Social Policy)
state which one _____
- ___ other _____
28. The director reports to:
- ___ a provost or vice president

- a dean
 - a chairperson
 - a director of another institute or center
 - the funding agency
 - Other
-

29. The center has had the same position in the institution:

- since its establishment
- not since its establishment, but for 10 years or more
- between 5-9 years
- less than 5 years

30. The likelihood that the center will remain a permanent part of your institution in the next five years is:

- for sure very likely likely somewhat likely not likely

31. The impetus for establishing the center came from:

- central administration
 - a department or college
 - an individual faculty member or group of faculty members
 - funding agency initiative
 - community groups
 - state legislature
 - other, please state:
-

32. The center's building and/or office space is adequate to meet its goals and mission.

- strongly agree agree somewhat agree disagree strongly disagree

33. Which disciplines do **permanent** center faculty represent?

- | | |
|--|--|
| <input type="checkbox"/> Sociology | <input type="checkbox"/> Psychology |
| <input type="checkbox"/> Political Science | <input type="checkbox"/> Public Administration |
| <input type="checkbox"/> Social Work | <input type="checkbox"/> Nursing |
| <input type="checkbox"/> Allied Health | <input type="checkbox"/> Medicine |
| <input type="checkbox"/> Other | |

(specify) _____

34. Which disciplines do **affiliated** faculty represent?

- | | |
|--|--|
| <input type="checkbox"/> Sociology | <input type="checkbox"/> Psychology |
| <input type="checkbox"/> Political Science | <input type="checkbox"/> Public Administration |
| <input type="checkbox"/> Social Work | <input type="checkbox"/> Nursing |
| <input type="checkbox"/> Allied Health | <input type="checkbox"/> Medicine |

Other
(specify) _____

35. Check appropriate statements about permanent faculty academic appointments:

Faculty have permanent positions at the center, but receive **tenure through academic departments.**

Faculty have permanent positions at the center and receive **tenure from the center.**

Faculty have permanent positions at the center, but are **not eligible for tenure** at the
university/college.

36. Check appropriate statements about the director's academic appointment:

Director **has tenured-faculty position** with the university **through an academic department.**

Director **has tenured-faculty position through center.**

Director **does not have a tenured-faculty position.**

37. Director gives input into decisions of hiring, tenure and promotion to the academic departments of the staff.

sometimes always never

38. Affiliated faculty prepare for their center activities at their:

center office

academic department office

off campus

other

(specify) _____

39. For center activities, affiliated faculty usually use resources (phone, computer, etc.) belonging to:

the center/institute

academic department

the faculty member

other

(specify) _____

40. Does the center/institute employ a permanent clerical staff? yes no

41. If no, from where does the center get clerical assistance?

the departments of affiliated faculty

department in which the center resides

director or other administrative staff do their own clerical work

___ other
(specify) _____

STRATEGIC EMPHASES OF ADMINISTRATOR

Please answer these questions with regard to the gerontology center director's perspective on administrating the center.

42. Which term best describes the relationship between the director and the sub-divisions?

- ___ direct supervision
- ___ indirect supervision
- ___ nominal supervision
- ___ other (specify) _____

43. I would describe my leadership behavior as:

- ___ directive (clarifies expectations, gives specific directions, asks subordinates to follow rules and procedures).
- ___ achievement-oriented (sets goals, seeks improvements, emphasizes excellence).
- ___ supportive (shows consideration, displays concern for the well-being of subordinates, creates friendly organizational health).
- ___ participative (calls for consultation with subordinates, uses others ideas in making decisions).
- ___ other (specify) _____

44. Rank, in order of **importance**, your job responsibilities as director of the center or institute.

- ___ fund raising
- ___ managing
- ___ teaching
- ___ research/academic scholarship
- ___ politics and public relations
- ___ external professional involvement
- ___ budgeting
- ___ public service
- ___ other (specify) _____

45. Rank, in order of **time spent** over the course of an academic year, your job responsibilities as the director of the center or institute:

- ___ fund raising
- ___ managing
- ___ teaching

- research/academic scholarship
- politics and public relations
- external professional involvement
- budgeting
- public service
- other (specify)_____

46. Activities for the center/institute are selected by:

- central administration
- director
- associate/assistant directors
- faculty
- funding agency
- advisory committee
- other (specify)_____

ORGANIZATIONAL GOAL PREFERENCE

47. Rank order the primary mission/s of your center /institute.

- research
- university/college instruction
- service (i.e. continuing education, community programs)
- other (specify)_____

48. If you included research as one of the center's missions, does your center conduct research in any of these areas? (Check as many as apply.)

- | | | |
|---------------|------------------------------|---|
| sociological | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| educational | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| biological | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| psychological | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| medical | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| other | <input type="checkbox"/> Yes | <input type="checkbox"/> No (if yes,specify)_____ |

49. If you selected service, please indicate **types of service projects**. (Check as many as apply.)

- | | | |
|--|------------------------------|-----------------------------|
| adult education programs | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| professional continuing education programs | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| consultation services | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| support groups | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| community groups projects | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| coordinated projects with state agencies | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

other

___ Yes

___ No

(if yes, specify) _____

50. Rank in order of **importance** to the center, the following list of **goals**:

___ student satisfaction

___ academic development of students

___ career development of students

___ personal development of students

___ faculty/staff satisfaction

___ professional development of faculty and staff

___ community interaction

___ interdisciplinary collaboration

___ acquiring resources

___ other (specify) _____

51. The mission of the center and the mission of the parent institution are:

___ identical ___ very close ___ close ___ somewhat close ___ far apart

FINANCIAL FACTORS

52. Funding for this center comes from:

(please write in an approximate percentage of funding from each source)

___ % central administration (tuition and fees)

___ % public funds other than university funding

___ % private donations

___ % federal or state grants

___ % industry

___ % endowments

53. Give the percent of the center's expenditures in each of the following areas:

___ % research

___ % student aid and services

___ % public service

___ % academic support

___ % library books

___ % auxiliary enterprises

___ % physical plant

54. Check the statement which is true for your center.

___ The center has a permanent budget line.

_____ The center is reviewed periodically by funding source to determine continuation of funding.

_____ The center is dependent on the continued funding its host unit.

_____ other

55. Funding for the center is adequate to meet its objectives and activities.

__strongly agree __ agree __ somewhat agree __ disagree __ strongly disagree

56. Funding for the center is stable for the next five years.

__strongly agree __ agree __ somewhat agree __ disagree __strongly disagree

57. The center has adequate resources (equipment, facilities, staff) to meet its goals.

__strongly agree __ agree __ somewhat agree __ disagree __strongly disagree

In order to continue this study of centers and institutes, we need the opinions of others associated with your center. These individuals will be sent only Part B of the questionnaire. Please list the name and title and address of individuals at your institution who fall under the following categories:

I would like to send this questionnaire to at least five individuals from your institution, if possible.

I. Central administrator responsible for the center/institute

II. Directors of the subunits of the center

III. Program/project directors/administrators

IV. Faculty with major responsibility in the center

APPENDIX C
PART B
ASSESSMENT OF ORGANIZATIONAL CHARACTERISTICS OF CENTERS AND INSTITUTES

This questionnaire was used by permission from Kim Cameron, Brigham Young University. Contact Dr. Cameron for further details.

APPENDIX D
(Shortened Version)

PART A

CHARACTERISTICS OF GERONTOLOGY CENTERS AND INSTITUTES

1. Name of institute/center _____
2. Address _____
-
3. Director (name and title) _____
4. If not director, name and title of person completing this survey _____
5. Date of founding of the center _____
6. Number of permanent faculty members _____
7. Number of permanent administrative staff _____
8. Type of facility
- Free-standing building _____
 - Offices in building belonging to a college or department _____
 - Building/offices off-campus _____
 - No permanent space except director's office _____
9. Total operating budget for the center _____
10. Total amount of sponsored research _____
11. Choose the description which best describes the relationship of your institute or center to other units in your institution:
- ___ free-standing
 - ___ within an academic college (i.e. arts and sciences)
 - ___ within an academic department
 - ___ affiliated, but separate from university or college
 - ___ subunit of a center or institute (i.e. within the Center for Social Policy)
 - ___ other
12. The director reports to:
- ___ a provost or vice president
 - ___ a dean
 - ___ a chairperson
 - ___ a director of another institute or center
 - ___ the funding agency

other
(state) _____

13. The impetus for establishing the center came from:

- central administration
- a department or college
- an individual faculty member or group of faculty members
- funding agency initiative
- community groups
- state legislature
- other or combination of above

14. Which disciplines do permanent and affiliated center faculty represent?

- Sociology Psychology Biology
- Political Science Public Administration Other _____
- Social Work Nursing Allied Health Medicine

15. Check appropriate statements about permanent faculty academic appointments:

- Faculty have permanent positions at the center, but receive **tenure through academic departments.**
- Faculty have permanent positions at the center and receive **tenure from the center.**
- Faculty have permanent positions at the center, but are **not eligible for tenure** at the university/college.

16. Check appropriate statements about the director's academic appointment:

- Director **has tenured-faculty position** with the university **through an academic department.**
- Director **has tenured-faculty position through center.**
- Director **does not have a tenured-faculty position.**

17. Director gives input into decisions of hiring, tenure and promotion to academic departments.

- sometimes always never

18. Does the center/institute employ a permanent clerical staff? yes no

19. Which term best describes the relationship between the director and the sub-divisions?

- direct supervision
- indirect supervision
- nominal supervision
- other

(specify) _____

20. I would describe my leadership behavior as: (Choose one)

directive (clarifies expectations, gives specific directions, asks subordinates to follow rules and procedures).

achievement-oriented (sets goals, seeks improvements, emphasizes excellence).

supportive (shows consideration, displays concern for the well-being of subordinates, creates friendly organizational health).

participative (calls for consultation with subordinates, uses others ideas in making decisions).

other

(specify) _____

21. Rank, in order of **importance**, your job responsibilities as director of the center or institute.

fund raising

managing

teaching

research/academic scholarship

politics and public relations

external professional involvement

budgeting

public service

other

(specify) _____

22. Rank, in order of **time spent** over the course of an academic year, your job responsibilities as the director of the center or institute:

fund raising

managing

teaching

research/academic scholarship

politics and public relations

external professional involvement

budgeting

public service

other

(specify) _____

23. Rank order the primary mission/s of your center /institute.

- research
- university/college instruction
- service (i.e. continuing education, community programs)
- other

(specify) _____

24. If you selected service, please indicate **types of service projects**. (Check as many as apply.)

- | | | |
|--|------------------------------|-----------------------------|
| adult education programs | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| professional continuing education programs | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| consultation services | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| support groups | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| community groups projects | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| coordinated projects with state agencies | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| other | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

(if yes, specify) _____

25. Rank in order of **importance** to the center, the following list of **goals**:

- student satisfaction
- academic development of students
- career development of students
- personal development of students
- faculty/staff satisfaction
- professional development of faculty and staff
- community interaction
- interdisciplinary collaboration
- acquiring resources
- other (specify) _____

26. The mission of the center and the mission of the parent institution are:

- identical very close close somewhat close far apart

27. Funding for this center comes from: (please write in an approximate percentage of funding from each source)

- | | |
|------------------------|--|
| <input type="text"/> % | central administration (tuition and fees) |
| <input type="text"/> % | public funds other than university funding |
| <input type="text"/> % | private donations |
| <input type="text"/> % | federal or state grants |
| <input type="text"/> % | industry |
| <input type="text"/> % | endowments |

28. Give the percent of the center's expenditures in each of the following areas:

- | | |
|------------------------|----------|
| <input type="text"/> % | research |
|------------------------|----------|

- ____ % student aid and services
- ____ % public service
- ____ % academic support
- ____ % library books
- ____ % auxiliary enterprises
- ____ % physical plant

29. Check the statement which is true for your center.

- ____ The center has a permanent budget line.
- ____ The center is reviewed periodically by funding source to determine continuation of funding.
- ____ The center is dependent on the continued funding its host unit.
- ____ other

30. Funding for the center is adequate to meet its objectives and activities.

- __strongly agree __ agree __ somewhat agree __ disagree __ strongly disagree

31. Funding for the center is stable for the next five years.

- __strongly agree __ agree __ somewhat agree __ disagree __strongly disagree

32. The center has adequate resources (equipment, facilities, staff) to meet its goals.

- __strongly agree __ agree __ somewhat agree __ disagree __strongly disagree

In order to continue this study of centers and institutes, we need the opinions of others associated with your center. These individuals will be sent only Part B of the questionnaire. Please list the name and title and address of individuals at your institution who fall under the following categories:

I would like to send this questionnaire to at least five individuals from your institution, if possible.

I. Central administrator responsible for the center/institute

—

—

II. Directors of the subunits of the center

—

III. Program/project directors/administrators

IV. Faculty with major responsibility in the center

APPENDIX E

Rotated Factor Pattern

	FACTOR1	FACTOR2	FACTOR3	FACTOR4	FACTOR5	FACTOR6	FACTOR7	FACTOR8
INTEL	0.26563	0.11199	0.50753	-0.19264	0.27996	0.18120	-0.01147	0.29380
PERDIV	0.72533	0.12979	0.26954	0.02225	0.03057	0.02734	-0.00306	0.13009
COMNE	0.76406	-0.00095	0.05188	-0.21035	-0.03966	-0.01368	-0.06152	0.16816
HIFIN	0.15245	0.08151	0.85052	0.03238	0.23679	0.05930	-0.13771	-0.04530
LEFAC	0.12439	.05584	0.93945	0.00691	0.00110	0.00860	-0.02610	0.08857
LESTU	0.08907	0.09159	0.66894	0.12631	0.14258	-0.11320	0.16379	0.28854
HIRES	0.24001	-0.12603	0.78328	0.05510	0.31943	0.06638	-0.20102	-0.05528
STUCOM	0.68680	0.29686	0.43312	-0.07566	0.04928	-0.08907	-0.01078	0.19451
ALUMSU	0.50103	0.13847	0.31421	0.02396	0.02616	-0.19976	-0.02644	0.13128
STUDIS	0.14141	0.19284	0.08441	-0.01117	0.00066	0.29690	-0.14053	0.79183
STUDROP	0.00275	0.06223	0.01191	-0.17518	-0.05120	0.86986	-0.06069	0.21635
STUCOMP	-0.24898	0.25066	0.00990	0.02969	-0.06259	0.65648	-0.31540	0.29704
STUACAD	0.11903	0.01853	-0.16758	0.37647	-0.15693	-0.01002	0.09055	0.72152
STUDEG	0.14077	-0.14507	-0.41727	0.09271	-0.14177	-0.12614	-0.01543	0.00961
DEVOPP	-0.58390	0.18112	-0.22297	0.26975	-0.03362	-0.04168	0.48620	0.18679
OUTACAD	0.27098	0.00212	-0.07795	-0.11140	0.28122	-0.03457	-0.22988	0.02714
OUTPERS	0.62455	-0.05196	0.10482	-0.20446	0.03508	-0.06006	-0.36657	-0.15173
OUTFAC	0.06630	0.21415	0.00355	-0.25470	0.14929	0.04878	-0.04447	0.06415
OUTCEN	0.70506	-0.07356	-0.09416	-0.20904	-0.13865	-0.15286	-0.19402	0.07227
STUCAR	0.10385	0.17187	0.44297	0.10492	0.28615	0.15067	-0.01369	0.23215
STUMAT	0.86486	0.00729	0.10000	0.10919	-0.15288	0.11069	0.00554	-0.19996
COMFAC	0.11692	0.10017	-0.06818	0.07077	0.20588	0.01156	0.16394	0.32123
COMCTR	0.32478	0.01387	0.24556	-0.19273	0.18486	0.14152	-0.21400	0.00428
FACREP	0.02208	-0.13896	0.45411	0.01331	0.66092	-0.05690	0.17616	-0.02891
STUMOT	-0.06679	0.21516	0.46707	-0.13895	0.33312	0.11905	-0.01850	-0.00205
STUEMP	0.23865	0.73183	-0.11514	0.06565	.18301	0.01739	-0.01817	-0.28772
STUINT	-0.28450	0.72470	0.04939	-0.06943	-0.20011	0.12773	0.12590	0.06910
CARCOU	0.07989	0.00256	-0.03479	0.04384	-0.06490	-0.03995	-0.15643	-0.06031
CARFIR	0.01539	0.48151	0.16236	-0.05109	0.07403	0.50473	-0.15709	-0.21093
CARHEL	0.03914	0.38088	0.09938	-0.36144	0.13819	0.54709	0.26085	0.07158
FACLEA	0.13292	0.28807	-0.00082	-0.35175	-0.14376	0.26939	0.02854	0.44408
ADMLEA	0.26999	0.71658	0.20420	-0.09044	0.19913	-0.15825	-0.23054	0.18246
FACSAT	0.03859	0.72541	0.08434	-0.20020	-0.00812	0.44288	-0.30431	0.17446
ADMSAT	-0.00453	0.90076	0.03059	-0.08459	-0.00168	0.17203	-0.10443	0.18699
FACSCH	0.01448	0.43726	0.18303	-0.07710	0.05782	0.36286	-0.23921	0.34429
FACCONF	-0.20446	0.07029	0.12833	-0.10707	0.32842	0.07674	-0.08875	0.22533
FACPUB	-0.00544	-0.00466	0.32277	-0.08434	0.83539	-0.06391	0.04320	-0.11308
FACCUA	0.07573	0.44676	-0.07337	-0.09583	0.63716	0.28295	0.08871	0.36691
FACAWA	-0.02583	0.03985	0.11009	0.11337	0.68863	-0.05638	-0.02593	-0.00499
FACPRO	-0.14413	0.02632	0.13367	-0.11652	0.89863	0.04034	-0.11084	0.11329
STUTOP	0.02059	-0.01942	0.15412	-0.14657	0.11791	-0.25646	0.00509	0.14075
STUFAC	-0.08936	-0.20494	-0.20931	0.19464	-0.10467	0.26216	-0.10967	-0.29191
INTDEPT	-0.00397	0.11277	-0.03291	0.84363	-0.10365	0.01241	0.05340	-0.10598

	FACTOR1	FACTOR2	FACTOR3	FACTOR4	FACTOR5	FACTOR6	FACTOR7	FACTOR8
SUPERV	-0.01091	-0.02826	0.00433	0.14742	-0.04028	0.02658	-0.01273	0.08609
TREREW	-0.17112	-0.19547	0.09244	0.52099	0.25606	0.07428	0.40651	0.14354
RECOG	0.20978	-0.26816	-0.08562	0.37891	0.09811	-0.21293	0.52726	-0.41129
FEEDBAC	-0.32839	0.13014	-0.14529	0.35462	-0.02727	-0.15683	0.55281	-0.17303
COMMUN	0.06394	0.08565	0.13897	0.61386	-0.25360	-0.07831	0.11237	-0.04170
ENVIRON	-0.28286	-0.17087	-0.06060	0.53718	-0.24811	-0.12748	0.27220	-0.22875
FLEXAD	-0.13443	-0.32573	-0.09722	0.11036	-0.07688	-0.08256	0.82261	-0.07413
TRUST	-0.09789	-0.16055	0.03135	-0.01448	-0.14032	-0.62991	0.06023	0.02244
CONFLIC	-0.32571	-0.13414	0.26974	0.58338	0.05967	-0.13171	0.02182	0.09633
DISAGRE	0.05822	0.32910	0.05690	-0.71592	-0.18843	0.33517	-0.01285	-0.05128
TALENT	-0.50477	-0.11215	-0.06018	0.12381	-0.07236	-0.23600	0.60515	-0.07445
HEALTH	-0.24680	-0.31750	0.09708	0.57417	-0.07764	-0.00492	0.42489	-0.27474
GOAL	-0.28153	-0.28618	-0.03105	0.60544	-0.17856	-0.04828	0.31724	-0.14506

Final Community Estimates: Total = 49.05880

INTEL	PERDIV	COMNE	HIFIN	LEFAC	LESTU	HIRES	STUCOM	
0.816096	0.901780	0.875786	0.919038	0.960817	0.876686	0.913679	0.878441	
ALUMSU	STUDIS	STUDROP	STUCOMP	STUACAD	STUDEG	DEVOPP	OUTACAD	
0.758115	0.871860	0.930663	0.871615	0.895324	0.846458	0.881720	0.912530	
OUTPERS	OUTFAC	OUTCEN	STUCAR	STUMAT	COMFAC	COMCTR	FACREP	
0.865712	0.831164	0.870740	0.830165	0.919900	0.832705	0.874672	.923055	
STUMOT	STUEMP	STUINT	CARCOU	CARFIR	CARHEL	FACLEA	ADMLEA	
0.769401	0.874603	0.841070	0.929615	0.814075	0.934562	0.862712	0.901736	
FACSAT	ADMSAT	FACSCH	FACCONF	FACPUB	FACCUT	FACAWA	FACPRO	
0.957872	0.937853	0.918733	0.876447	0.921938	0.910005	0.861965	0.835770	
STUTOP	STUFAC	INTDEPT	SUPERV	TREREW	RECOG	FEEDBAC	COMMUN	
0.872048	0.928013	0.696673	0.900926	0.774550	0.897887	0.884286	0.797203	
ENVIRON	FLEXAD	TRUST	CONFLIC	DISAGRE	TALENT	HEALTH	GOAL	
0.882020	0.926667	0.853927	0.824622	0.901375	0.883410	0.923215	0.904904	

APPENDIX F
ALPHA CORRELATIONS OF DOMAIN VARIABLES
Non-Academic

8 'VAR' Variables: PERDIV COMNE STUCOM ALUMSU DEVOPP OUTPERS OUTCEN STUMAT
 Cronbach Coefficient Alpha
 for RAW variables : 0.620124
 for STANDARDIZED variables: 0.651188

Raw Variables		Std. Variables		
Deleted Variable	Correlation with Total	Correlation Alpha	Correlation with Total	Alpha
PERDIV	0.495461	0.535575	0.498990	0.578196
COMNE	0.532545	0.533879	0.541145	0.566341
STUCOM	0.629888	0.497478	0.618463	0.544014
ALUMSU	0.610876	0.489905	0.622748	0.542754
DEVOPP	-0.568350	0.810222	-0.558362	0.810739
OUTPERS	0.418808	0.555258	0.436331	0.595412
OUTCEN	0.335066	0.583316	0.350811	0.618138
STUMAT	0.526326	0.531540	0.517398	0.573047

Career goal satisfaction

5 'VAR' Variables: STUEMP STUINT ADMLEA FACSAT CARFIR
 Correlation Analysis
 Cronbach Coefficient Alpha
 for RAW variables : 0.626049
 for STANDARDIZED variables: 0.646692

Raw Variables		Std. Variables		
Deleted Variable	Correlation with Total	Correlation Alpha	Correlation with Total	Alpha
STUEMP	0.542950	0.499305	0.555087	0.515831
STUINT	0.264907	0.632248	0.302561	0.639100
ADMLEA	0.341232	0.590585	0.335814	0.623926
FACSAT	0.374300	0.579200	0.389879	0.598585
CARFIR	0.417098	0.555358	0.424946	0.581698

Resource Acquisition

4 'VAR' Variables: HIFIN LEFAC LESTU HIRES
Cronbach Coefficient Alpha

for RAW variables : 0.862089
for STANDARDIZED variables: 0.859148

Deleted Variable	Raw Variables		Std. Variables	
	Correlation with Total	Alpha	Correlation with Total	Alpha
HIFIN	0.762275	0.801467	0.756372	0.798596
LEFAC	0.782315	0.792927	0.784712	0.786418
LESTU	0.539454	0.885658	0.534382	0.887745
HIRES	0.768699	0.799583	0.754517	0.799387

ORGANIZATIONAL HEALTH

8 'VAR' Variables: TREREW COMMUN ENVIRON CONFLIC DISAGRE HEALTH GOAL
Cronbach Coefficient Alpha

for RAW variables : 0.616582
for STANDARDIZED variables: 0.595799

Deleted Variable	Raw Variables		Std. Variables	
	Correlation with Total	Alpha	Correlation with Total	Alpha
TREREW	0.460924	0.538070	0.463021	0.510489
COMMUN	0.320316	0.583183	0.315898	0.557215
ENVIRON	0.542675	0.519041	0.537116	0.485694
CONFLIC	0.399813	0.556162	0.390463	0.533943
DISAGRE	-0.704024	0.788937	-0.699244	0.800772
HEALTH	0.714012	0.479878	0.700403	0.427948
GOAL	0.532095	0.514012	0.546593	0.482461
INTDEPT	0.502482	0.539839	0.499572	0.498366

Quality of Faculty

4 'VAR' Variables: FACREP FACPUB FACAWA FACPRO
 Cronbach Coefficient Alpha
 for RAW variables : 0.770076
 for STANDARDIZED variables: 0.775879

Raw Variables Deleted Variable	Std. Variables		Correlation with Total	Alpha
	Correlation with Total	Alpha		
FACREP	0.624059	0.688540	0.640059	0.689366
FACPUB	0.650317	0.671316	0.645325	0.686512
FACAWA	0.515553	0.744320	0.515819	0.754140
FACPRO	0.512634	0.744588	0.519509	0.752286

Student Satisfaction

4 'VAR' Variables: STUDROP STUCOMP CARHEL TRUST
 Cronbach Coefficient Alpha
 for RAW variables : -.096875
 for STANDARDIZED variables: 0.344933

Raw Variables Deleted Variable	Std. Variables		Correlation with Total	Alpha
	Correlation with Total	Alpha		
STUDROP	0.225515	-0.331815	0.504191	-0.148441
STUCOMP	0.167094	-0.269321	0.430113	-0.038582
CARHEL	-0.019251	-0.110627	0.192371	0.270453
TRUST	-0.240853	0.565732	-0.231036	0.678434

Faculty and Staff Job Satisfaction

4 'VAR' Variables: RECOG FEEDBAC FLEXAD TALENT
Cronbach Coefficient Alpha
for RAW variables : 0.761650
for STANDARDIZED variables: 0.767104

Deleted Variable	Raw Variables		Std. Variables	
	Correlation with Total	Alpha	Correlation with Total	Alpha
RECOG	0.465806	0.756165	0.481086	0.756446
FEEDBAC	0.609412	0.686221	0.616855	0.684838
FLEXAD	0.600676	0.683989	0.600942	0.693543
TALENT	0.584985	0.692137	0.573147	0.708545

**APPENDIX G
MEDIAN ANALYSIS**

N P A R 1 W A Y P R O C E D U R E

Median Scores (Number of Points Above Median) for Variable WORK
Classified by Variable NAMECT

NAMECT	N	Sum of Scores	Expected Under H0	Std Dev Under H0	Mean Score
18	2	2.0	1.0000000	0.70366585	1.0000000
34	1	1.0	0.5000000	0.5000000	1.0000000
8	3	2.0	1.5000000	0.85757617	0.6666667
19	1	0.0	0.5000000	0.5000000	0.0000000
21	5	2.0	2.5000000	1.09610963	0.4000000
4	3	0.0	1.5000000	0.85757617	0.0000000
26	2	1.0	1.0000000	0.70366585	0.5000000
5	3	1.0	1.5000000	0.85757617	0.3333333
10	4	1.0	2.0000000	0.98532928	0.2500000
2	2	1.0	1.0000000	0.70366585	0.5000000
9	2	0.0	1.0000000	0.70366585	0.0000000
42	1	0.0	0.5000000	0.5000000	0.0000000
13	1	0.0	0.5000000	0.5000000	0.0000000
39	5	2.0	2.5000000	1.09610963	0.4000000
30	2	1.0	1.0000000	0.70366585	0.5000000
20	2	1.0	1.0000000	0.70366585	0.5000000
3	3	3.0	1.5000000	0.85757617	1.0000000
7	2	0.0	1.0000000	0.70366585	0.0000000
6	2	0.0	1.0000000	0.70366585	0.0000000
1	2	2.0	1.0000000	0.70366585	1.0000000
32	3	3.0	1.5000000	0.85757617	1.0000000
12	3	1.0	1.5000000	0.85757617	0.3333333
14	5	3.0	2.5000000	1.09610963	0.6000000
29	3	1.0	1.5000000	0.85757617	0.3333333
28	3	2.0	1.5000000	0.85757617	0.6666667
15	3	2.0	1.5000000	0.85757617	0.6666667
27	2	0.0	1.0000000	0.70366585	0.0000000
33	1	1.0	0.5000000	0.5000000	1.0000000
35	3	1.0	1.0000000	0.70366585	0.5000000
22	2	1.0	1.0000000	0.70366585	0.5000000
37	6	6.0	3.0000000	1.19464826	1.0000000
16	3	0.0	1.5000000	0.85757617	0.0000000
23	2	1.0	1.0000000	0.70366585	0.5000000
25	3	3.0	1.5000000	0.85757617	1.0000000
40	1	1.0	0.5000000	0.5000000	1.0000000
17	4	1.0	2.0000000	0.98532928	0.2500000
36	3	2.0	1.5000000	0.85757617	0.6666667
24	2	2.0	1.0000000	0.70366585	1.0000000
31	2	0.0	1.0000000	0.70366585	0.0000000

CHISQ = 47.803 DF = 39 Prob > CHISQ = 0.1576

Median Scores (Number of Points Above Median)
for Variable NOACAD Classified by Variable NAMECT

NAMECT	N	Sum of Scores	Expected Under H0	Std Dev Under H0	Mean Score
18	1	0.00000000	0.49367089	0.49037360	0.00000000
8	2	0.00000000	0.98734177	0.68903319	0.00000000
19	1	0.00000000	0.49367089	0.49037360	0.00000000
21	4	3.00000000	1.97468354	0.96170176	0.75000000
4	3	3.00000000	1.48101266	0.83839216	1.00000000
26	2	2.00000000	0.98734177	0.68903319	1.00000000
5	3	2.00000000	1.48101266	0.83839216	0.66666667
	2	2.00000000	0.98734177	0.68903319	1.00000000
2	1	1.00000000	0.49367089	0.49037360	1.00000000
9	1	1.00000000	0.49367089	0.49037360	1.00000000
42	1	1.00000000	0.49367089	0.49037360	1.00000000
13	1	0.00000000	0.49367089	0.49037360	0.00000000
39	2	0.00000000	0.98734177	0.68903319	0.00000000
30	2	1.00000000	0.98734177	0.68903319	0.50000000
20	2	0.00000000	0.98734177	0.68903319	0.00000000
3	2	0.25000000	0.98734177	0.68903319	0.12500000
7	2	2.00000000	0.98734177	0.68903319	1.00000000
6	1	0.00000000	0.49367089	0.49037360	0.00000000
1	2	2.00000000	0.98734177	0.68903319	1.00000000
32	3	2.00000000	1.48101266	0.83839216	0.66666667
12	1	0.00000000	0.49367089	0.49037360	0.00000000
14	2	2.00000000	0.98734177	0.68903319	1.00000000
29	3	2.00000000	1.48101266	0.83839216	0.66666667
28	3	0.25000000	1.48101266	0.83839216	0.08333333
15	2	0.00000000	0.98734177	0.68903319	0.00000000
27	1	1.00000000	0.49367089	0.49037360	1.00000000
35	3	1.00000000	1.48101266	0.83839216	0.33333333
41	2	0.00000000	0.98734177	0.68903319	0.00000000
22	1	1.00000000	0.49367089	0.49037360	1.00000000
37	6	2.25000000	2.96202532	1.16202866	0.37500000
16	2	1.00000000	0.98734177	0.68903319	0.50000000
23	2	2.00000000	0.98734177	0.68903319	1.00000000
25	2	0.00000000	0.98734177	0.68903319	0.00000000
40	1	1.00000000	0.49367089	0.49037360	1.00000000
17	3	3.00000000	1.48101266	0.83839216	1.00000000
36	3	0.00000000	1.48101266	0.83839216	0.00000000
24	2	0.25000000	0.98734177	0.68903319	0.12500000
31	2	0.00000000	0.98734177	0.68903319	0.00000000

Median 1-Way Analysis (Chi-Square Approximation)

CHISQ = 54.434 DF = 37 Prob > CHISQ = 0.0322

N P A R 1 W A Y P R O C E D U R E
 Median Scores (Number of Points Above Median)for Variable RESOURC
 classified by Variable NAMECT

NAMECT	N	Sum of	Expected	Std Dev	Mean
		Scores	Under H0	Under H0	Score
18	2	0.0000000	1.0000000	0.69172399	0.0000000
34	1	0.0000000	0.5000000	0.49151454	0.0000000
11	1	0.0000000	0.5000000	0.49151454	0.0000000
8	4	2.0000000	2.0000000	0.96860732	0.5000000
19	2	1.0000000	1.0000000	0.69172399	0.5000000
4	3	1.8750000	1.5000000	0.84302231	0.6250000
21	4	4.0000000	2.0000000	0.96860732	1.0000000
26	2	0.8750000	1.0000000	0.69172399	0.4375000
5	3	1.0000000	1.5000000	0.84302231	0.33333333
10	4	2.0000000	2.0000000	0.96860732	0.5000000
9	2	2.0000000	1.0000000	0.69172399	1.0000000
42	1	0.0000000	0.5000000	0.49151454	0.0000000
13	1	0.0000000	0.5000000	0.49151454	0.0000000
39	5	4.0000000	2.5000000	1.07750763	0.8000000
30	2	0.8750000	1.0000000	0.69172399	0.4375000
20	2	0.0000000	1.0000000	0.69172399	0.0000000
3	3	0.0000000	1.5000000	0.84302231	0.0000000
7	2	2.0000000	1.0000000	0.69172399	1.0000000
6	2	0.0000000	1.0000000	0.69172399	0.0000000
1	2	2.0000000	1.0000000	0.69172399	1.0000000
32	3	2.0000000	1.5000000	0.84302231	0.66666667
12	3	2.0000000	1.5000000	0.84302231	0.66666667
14	6	5.0000000	3.0000000	1.17437397	0.83333333
29	3	3.0000000	1.5000000	0.84302231	1.0000000
28	3	0.0000000	1.5000000	0.84302231	0.0000000
15	3	0.0000000	1.5000000	0.84302231	0.0000000
27	2	1.0000000	1.0000000	0.69172399	0.5000000
33	1	0.8750000	0.5000000	0.49151454	0.8750000
35	3	2.0000000	1.5000000	0.84302231	0.66666667
41	2	0.0000000	1.0000000	0.69172399	0.0000000
22	2	0.8750000	1.0000000	0.69172399	0.4375000
37	6	6.0000000	3.0000000	1.17437397	1.0000000
16	3	0.0000000	1.5000000	0.84302231	0.0000000
23	2	0.8750000	1.0000000	0.69172399	0.4375000
25	3	1.0000000	1.5000000	0.84302231	0.33333333
40	1	1.0000000	0.5000000	0.49151454	1.0000000
17	4	1.0000000	2.0000000	0.96860732	0.2500000
36	3	0.0000000	1.5000000	0.84302231	0.0000000
24	1	0.0000000	0.5000000	0.49151454	0.0000000
31	2	1.7500000	1.0000000	0.69172399	0.8750000

CHISQ = 58.555 DF = 39 Prob > CHISQ = 0.0229

Median Scores (Number of Points Above Median)for Variable STUD
Classified by Variable NAMECT

NAMECT	Sum of N	Expected Scores	Std Dev Under H0	Mean Under H0	Score
18	2	1.13043478	0.98823529	0.65827721	0.56521739
8	3	1.13043478	1.48235294	0.80135017	0.37681159
21	5	2.13043478	2.47058824	1.02184441	0.42608696
4	3	1.26086957	1.48235294	0.80135017	0.42028986
26	2	1.13043478	0.98823529	0.65827721	0.56521739
5	1	1.00000000	0.49411765	0.46826794	1.00000000
10	3	2.13043478	1.48235294	0.80135017	0.71014493
2	2	2.00000000	0.98823529	0.65827721	1.00000000
9	2	2.00000000	0.98823529	0.65827721	1.00000000
42	1	1.00000000	0.49411765	0.46826794	1.00000000
13	1	0.13043478	0.49411765	0.46826794	0.13043478
39	2	0.13043478	0.98823529	0.65827721	0.06521739
30	2	0.13043478	0.98823529	0.65827721	0.06521739
20	2	1.13043478	0.98823529	0.65827721	0.56521739
3	2	2.00000000	0.98823529	0.65827721	1.00000000
7	2	1.13043478	0.98823529	0.65827721	0.56521739
6	2	0.00000000	0.98823529	0.65827721	0.00000000
1	2	1.13043478	0.98823529	0.65827721	0.56521739
32	2	0.00000000	0.98823529	0.65827721	0.00000000
12	2	0.13043478	0.98823529	0.65827721	0.06521739
14	3	0.00000000	1.48235294	0.80135017	0.00000000
29	3	3.00000000	1.48235294	0.80135017	1.00000000
28	3	1.13043478	1.48235294	0.80135017	0.37681159
15	3	3.00000000	1.48235294	0.80135017	1.00000000
27	2	0.13043478	0.98823529	0.65827721	0.06521739
33	1	0.13043478	0.49411765	0.46826794	0.13043478
35	2	0.13043478	0.98823529	0.65827721	0.06521739
41	2	1.00000000	0.98823529	0.65827721	0.50000000
22	1	1.00000000	0.49411765	0.46826794	1.00000000
37	5	2.00000000	2.47058824	1.02184441	0.40000000
16	2	0.13043478	0.98823529	0.65827721	0.06521739
23	2	1.13043478	0.98823529	0.65827721	0.56521739
25	3	1.26086957	1.48235294	0.80135017	0.42028986
40	1	0.00000000	0.49411765	0.46826794	0.00000000
17	4	4.00000000	1.97647059	0.91965997	1.00000000
36	3	1.13043478	1.48235294	0.80135017	0.37681159
31	2	2.00000000	0.98823529	0.65827721	1.00000000

CHISQ = 46.079 DF = 36 Prob > CHISQ = 0.1212

Median Scores (Number of Points Above Median) for Variable CAREER
Classified by Variable NAMECT

NAMECT	Sum of N	Expected Scores	Std Dev Under H0	Mean Under H0	Score
18	2	0.0000000	1.0000000	0.68509787	0.0000000
34	1	0.0000000	0.5000000	0.48809353	0.0000000
8	1	0.0000000	0.5000000	0.48809353	0.0000000
21	4	3.2000000	2.0000000	0.95408185	0.8000000
4	3	3.0000000	1.5000000	0.83268924	1.0000000
26	1	0.0000000	0.5000000	0.48809353	0.0000000
5	1	1.0000000	0.5000000	0.48809353	1.0000000
10	3	2.0000000	1.5000000	0.83268924	0.6666667
2	1	0.0000000	0.5000000	0.48809353	0.0000000
9	1	1.0000000	0.5000000	0.48809353	1.0000000
42	1	1.0000000	0.5000000	0.48809353	1.0000000
13	1	0.0000000	0.5000000	0.48809353	0.0000000
39	2	2.0000000	1.0000000	0.68509787	1.0000000
30	2	0.0000000	1.0000000	0.68509787	0.0000000
20	2	2.0000000	1.0000000	0.68509787	1.0000000
3	2	1.0000000	1.0000000	0.68509787	0.5000000
7	2	2.0000000	1.0000000	0.68509787	1.0000000
6	1	0.0000000	0.5000000	0.48809353	0.0000000
1	2	1.0000000	1.0000000	0.68509787	0.5000000
32	2	0.2000000	1.0000000	0.68509787	0.1000000
12	2	1.0000000	1.0000000	0.68509787	0.5000000
14	2	0.0000000	1.0000000	0.68509787	0.0000000
29	2	2.0000000	1.0000000	0.68509787	1.0000000
28	1	0.0000000	0.5000000	0.48809353	0.0000000
15	1	1.0000000	0.5000000	0.48809353	1.0000000
33	1	0.0000000	0.5000000	0.48809353	0.0000000
35	1	1.0000000	0.5000000	0.48809353	1.0000000
41	1	0.0000000	0.5000000	0.48809353	0.0000000
22	1	0.2000000	0.5000000	0.48809353	0.2000000
37	6	2.2000000	3.0000000	1.15010401	0.3666667
16	2	0.0000000	1.0000000	0.68509787	0.0000000
23	2	2.0000000	1.0000000	0.68509787	1.0000000
25	1	0.2000000	0.5000000	0.48809353	0.2000000
40	1	1.0000000	0.5000000	0.48809353	1.0000000
17	4	1.0000000	2.0000000	0.95408185	0.2500000
36	3	1.0000000	1.5000000	0.83268924	0.3333333
31	2	2.0000000	1.0000000	0.68509787	1.0000000

CHISQ = 45.011

DF = 36

Prob > CHISQ = 0.1442

Median Scores (Number of Points Above Median)for Variable FACULTY
Classified by Variable NAMECT

NAMECT	N	Sum of Scores	Expected Under H0	Std Dev Under H0	Mean Score
18	2	1.0000000	0.98969072	0.68977729	0.50000000
34	1	0.0000000	0.49484536	0.49030657	0.00000000
8	3	0.92857143	1.48453608	0.84034312	0.30952381
19	1	0.0000000	0.49484536	0.49030657	0.00000000
21	6	3.92857143	2.96907216	1.16930663	0.65476190
4	3	2.0000000	1.48453608	0.84034312	0.66666667
26	2	1.92857143	0.98969072	0.68977729	0.96428571
5	3	0.0000000	1.48453608	0.84034312	0.00000000
10	3	3.0000000	1.48453608	0.84034312	1.00000000
2	2	1.0000000	0.98969072	0.68977729	0.50000000
9	2	2.0000000	0.98969072	0.68977729	1.00000000
42	1	0.0000000	0.49484536	0.49030657	0.00000000
13	1	0.0000000	0.49484536	0.49030657	0.00000000
39	5	4.78571429	2.47422680	1.07327499	0.95714286
30	2	1.92857143	0.98969072	0.68977729	0.96428571
20	2	0.92857143	0.98969072	0.68977729	0.46428571
3	3	1.0000000	1.48453608	0.84034312	0.33333333
7	2	0.0000000	0.98969072	0.68977729	0.00000000
6	2	0.0000000	0.98969072	0.68977729	0.00000000
1	2	0.0000000	0.98969072	0.68977729	0.00000000
32	3	0.0000000	1.48453608	0.84034312	0.00000000
12	4	0.92857143	1.97938144	0.96516944	0.23214286
14	4	0.92857143	1.97938144	0.96516944	0.23214286
29	3	2.0000000	1.48453608	0.84034312	0.66666667
28	3	1.92857143	1.48453608	0.84034312	0.64285714
15	3	3.0000000	1.48453608	0.84034312	1.00000000
33	1	0.0000000	0.49484536	0.49030657	0.00000000
35	2	1.0000000	0.98969072	0.68977729	0.50000000
41	2	0.0000000	0.98969072	0.68977729	0.00000000
22	1	0.0000000	0.49484536	0.49030657	0.00000000
37	6	4.92857143	2.96907216	1.16930663	0.82142857
16	2	0.0000000	0.98969072	0.68977729	0.00000000
23	2	0.0000000	0.98969072	0.68977729	0.00000000
25	3	1.0000000	1.48453608	0.84034312	0.33333333
40	1	1.0000000	0.49484536	0.49030657	1.00000000
17	4	3.85714286	1.97938144	0.96516944	0.96428571
36	3	1.0000000	1.48453608	0.84034312	0.33333333
31	2	2.0000000	0.98969072	0.68977729	1.00000000

CHISQ = 55.345 DF = 37 Prob > CHISQ = 0.0267

Median Scores (Number of Points Above Median) for Variable JOB

NAMECT	Sum of N	Scores	Expected Under H0	Std Dev Under H0	Mean Score
18	2	1.0	1.00000000	0.70366585	0.50000000
34	1	1.0	0.50000000	0.50000000	1.00000000
8	3	2.0	1.50000000	0.85757617	0.66666667
19	1	1.0	0.50000000	0.50000000	1.00000000
21	5	0.0	2.50000000	1.09610963	0.00000000
4	2	0.0	1.00000000	0.70366585	0.00000000
26	1	0.0	0.50000000	0.50000000	0.00000000
5	3	1.0	1.50000000	0.85757617	0.33333333
10	4	1.0	2.00000000	0.98532928	0.25000000
2	2	1.0	1.00000000	0.70366585	0.50000000
9	2	0.0	1.00000000	0.70366585	0.00000000
42	1	0.0	0.50000000	0.50000000	0.00000000
13	1	0.0	0.50000000	0.50000000	0.00000000
39	5	1.0	2.50000000	1.09610963	0.20000000
30	2	1.0	1.00000000	0.70366585	0.50000000
20	2	1.0	1.00000000	0.70366585	0.50000000
3	3	2.0	1.50000000	0.85757617	0.66666667
7	2	1.0	1.00000000	0.70366585	0.50000000
6	2	1.0	1.00000000	0.70366585	0.50000000
1	2	0.0	1.00000000	0.70366585	0.00000000
32	3	2.0	1.50000000	0.85757617	0.66666667
12	4	1.0	2.00000000	0.98532928	0.25000000
14	6	2.0	3.00000000	1.19464826	0.33333333
29	3	2.0	1.50000000	0.85757617	0.66666667
28	3	2.0	1.50000000	0.85757617	0.66666667
15	3	1.0	1.50000000	0.85757617	0.33333333
27	2	0.0	1.00000000	0.70366585	0.00000000
33	1	0.0	0.50000000	0.50000000	0.00000000
35	3	1.0	1.50000000	0.85757617	0.33333333
41	2	0.0	1.00000000	0.70366585	0.00000000
22	2	1.0	1.00000000	0.70366585	0.50000000
37	6	5.0	3.00000000	1.19464826	0.83333333
16	3	3.0	1.50000000	0.85757617	1.00000000
23	2	2.0	1.00000000	0.70366585	1.00000000
25	3	3.0	1.50000000	0.85757617	1.00000000
40	1	1.0	0.50000000	0.50000000	1.00000000
17	4	4.0	2.00000000	0.98532928	1.00000000
36	3	3.0	1.50000000	0.85757617	1.00000000
24	2	2.0	1.00000000	0.70366585	1.00000000
31	2	2.0	1.00000000	0.70366585	1.00000000

CHISQ = 50.312

DF = 39

Prob > CHISQ = 0.1060

APPENDIX H
REGRESSION ANALYSIS OF ORGANIZATIONAL STRUCTURE
AND DOMAINS OF ORGANIZATIONAL EFFECTIVENESS

Domain: Resource Acquisition

Model: MODEL1

Dependent Variable: RESOURC

Analysis of Variance						
Source	DF	Sum of Squares	Mean Square	F Value	Prob>F	
Model	6	588.60050	98.10008	13.261	0.0001	
Error	18	133.15950	7.39775			
C Total	24	721.76000				

Root MSE	2.71988	R-square	0.8155
Dep Mean	16.64000	Adj R-sq	0.7540
C.V.	16.34544		

Parameter Estimates						
Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	23.362405	5.33125611	4.382	0.0004	Intercept
RELAT	1	-2.703552	0.55750482		0.0001	relationship of Center to units
PERMAN	1	3.137191	0.56324123	5.570	0.0001	likelihood center will be permanent
POSITIO	1	1.486333	0.60745034	2.447	0.0249	time center in position
FACPOS	1	-1.125534	0.72195841	-1.559	0.1364	faculty appointments
DIRINP	1	-3.961609	0.99942979	-3.964	0.0009	director input into tenure
PERCLER	1	-0.734327	1.18944147	-0.617	0.5447	permanent clerical staff

**APPENDIX I
REGRESSION ANALYSIS OF FINANCIAL ISSUES AND DOMAINS OF
ORGANIZATIONAL EFFECTIVENESS**

Domain: Acquisition of Resources

Model: MODEL1
Dependent Variable: RESOURC

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	3	539.43154	179.81051	11.703	0.0001
Error	34	522.38425	15.36424		
C Total	37	1061.81579			

Root MSE	3.91972	R-square	0.5080
Dep Mean	16.28947	Adj R-sq	0.4646
C.V.	24.06293		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	5.324561	2.01234937	2.646	0.0122	Intercept
BUDLINE	1	1.197422	0.51303133	2.334	0.0256	type of budget
FUNADQ	1	1.765295	0.57727377	3.058	0.0043	adequacy of funding
STABILIT	1	0.852613	0.60682136	1.405	0.1691	stability for five years

APPENDIX J
REGRESSION ANALYSIS OF FINANCIAL ISSUES AND DOMAINS OF
ORGANIZATIONAL EFFECTIVENESS

Domain: Career Goal Satisfaction

Model: MODEL1

Dependent Variable: CAREER

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	3	69.15584	23.05195	3.021	0.0504
Error	23	175.51083	7.63091		
C Total	26	244.66667			

Root MSE	2.76241	R-square	0.2827
Dep Mean	28.77778	Adj R-sq	0.1891
C.V.	9.59911		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	27.475338	1.71763050	15.996	0.0001	Intercept
BUDLINE	1	-0.827512	0.52061552	-1.589	0.1256	type of budget
FUNADQ	1	-0.975904	0.54838682	-1.780	0.0884	adequacy of funding
STABILIT	1	2.133848	0.71180367	2.998	0.0064	stability for five years

**APPENDIX K
REGRESSION ANALYSIS OF ORGANIZATIONAL ACTIVITIES AND DOMAINS
OF ORGANIZATIONAL EFFECTIVENESS**

Domain: Quality of Faculty

Model: MODEL1

Dependent Variable: FACULTY

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	5	345.84460	69.16892	3.246	0.0241
Error	22	468.83398	21.31064		
C Total	27	814.67857			

Root MSE	4.61634	R-square	0.4245
Dep Mean	20.10714	Adj R-sq	0.2937
C.V.	22.95873		

Parameter Estimates

Variable	Parameter DF	Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	-0.668227	8.71944173	-0.077	0.9396	Intercept
ADLED	1	-4.384637	2.00577307	-2.186	0.0397	adult education
CE	1	5.312225	2.34849265	2.262	0.0339	continuing education
CONSUL	1	4.133811	3.59174069	1.151	0.2621	consultation
SUPPOR	1	-1.244769	2.27617490	-0.547	0.5900	support groups
STATE	1	6.347742	2.30010830	2.760	0.0114	state agencies

APPENDIX L REGRESSION ANALYSIS OF ORGANIZATIONAL GOALS AND DOMAINS OF ORGANIZATIONAL EFFECTIVENESS

Domain: Non-Academic

Model: MODEL1
Dependent Variable: NOACAD

Analysis of Variance

Source	Sum of DF	Mean Squares	Square	F Value	Prob>F
Model	7	619.47362	88.49623	2.551	0.0644
Error	14	485.61729	34.68695		
C Total	21	1105.09091			
Root MSE	5.88956	R-square	0.5606		
Dep Mean	36.63636	Adj R-sq	0.3408		
C.V.	16.07573				

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	17.845466	9.80686891	1.820	0.0903	Intercept
GOASTU	1	1.176522	0.71787063	1.639	0.1235	goals:student satisfaction
GOACAR	1	-0.942722	0.78406498	-1.202	0.2492	goal:career development
GOAFAC	1	-0.230118	1.00703122	-0.229	0.8226	goal: faculty/staff development
GOAPRO	1	2.189352	0.90791629	2.411	0.0302	goal:professional development
GOACOM	1	0.814099	0.63346073	1.285	0.2196	goal:community interaction
GOAINT	1	0.730265	0.58594945	1.246	0.2331	goal:interdisciplinary collaboration
GOARES	1	-0.938233	0.46592504	-2.014	0.0637	acquiring resources

APPENDIX M
REGRESSION ANALYSIS OF DEMOGRAPHICS AND DOMAINS OF ORGANIZATIONAL
EFFECTIVENESS

Domain: Non-Academic

Model: MODEL1
 ependent Variable: NOACAD

Analysis of Variance

Source	Sum of DF	Mean Squares	Square	F Value	Prob>F
Model	6	701.85621	116.97604	7.305	0.0024
Error	11	176.14379	16.01307		
C Total	17	878.00000			

Root MSE	4.00163	R-square	0.7994
Dep Mean	35.33333	Adj R-sq	0.6900
C.V.	11.32538		

Parameter Estimates

Variable	Parameter DF	Standard Estimate	T for H0: Error	Variable Parameter=0	Prob > T	Label
INTERCEP	1	-1788.780442	411.60908620	-4.346	0.0012	Intercept
FOUND	1	0.932509	0.20867977	4.469	0.0009	date of founding
FACPER	1	0.993441	0.95089489	1.045	0.3186	permanent faculty
FACAFF	1	0.083766	0.04667982	1.794	0.1002	affiliated faculty
FACILITY	1	-6.257302	1.90136560	-3.291	0.0072	type of facility
OPBUDG	1	0.000006057	0.00000210	2.882	0.0149	total operating budget
INSTIT	1	-0.000005651	0.00000479	-1.180	0.2629	name of institution

APPENDIX N
REGRESSION ANALYSIS OF ORGANIZATIONAL MISSION AND DOMAINS OF
ORGANIZATIONAL EFFECTIVENESS

Domain: Non-Academic

Model: MODEL1
 Dependent Variable: NOACAD

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	3	352.46378	117.48793	3.355	0.0435
Error	17	595.34574	35.02034		
C Total	20	947.80952			

Root MSE	5.91780	R-square	0.3700
Dep Mean	35.23810	Adj R-sq	0.2610
C.V.	16.79375		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	22.249233	13.09567502	1.699	0.1075	Intercept
MISSRES	1	-1.185193	1.86924081	-0.634	0.5345	mission:research
MISSIN	1	5.827081	2.70795537	2.152	0.0461	mission:instruction
MISSSER	1	0.560032	2.47977225	0.226	0.8240	mission:service

APPENDIX O
REGRESSION ANALYSIS OF ORGANIZATIONAL MISSION AND DOMAINS OF ORGANIZATIONAL EFFECTIVENESS

Domain: Faculty and Staff Job Satisfaction

Model: MODEL1
 Dependent Variable: JOB

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	3	74.11645	24.70548	2.765	0.0649
Error	23	205.51318	8.93536		
Total	26	279.62963			

Root MSE	2.98921	R-square	0.2651
Dep Mean	10.70370	Adj R-sq	0.1692
C.V.	27.92684		

Parameter Estimate

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	14.272356	4.03129318	3.540	0.0017	Intercept
MISSRES	1	-1.106416	0.54546304	-2.028	0.0543	mission:research
MISSIN	1	0.754271	0.91771315	0.822	0.4196	mission:instruction
MISSSER	1	-1.512541	0.88808801	-1.703	0.1020	mission:service

APPENDIX P
Predictor Variables for Resource Acquisition

Adequacy of Funding

Model: MODEL1
 Dependent Variable: Resource Acquisition

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	1	388.55268	388.55268	20.776	0.0001
Error	36	673.26311	18.70175		
C Total	37	1061.81579			

Root MSE	4.32455	R-square	0.3659
Dep Mean	16.28947	Adj R-sq	0.3483
C.V.	26.54814		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	9.581218	1.63037333	5.877	0.0001	Intercept
FUNADQ	1	2.499154	0.54828861	4.558	0.0001	adequacy of funding

Adequacy of Resources

Model: MODEL1

Dependent Variable: Resource Acquisition

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	1	297.76951	297.76951	13.694	0.0007
Error	35	761.04130	21.74404		
C Total	36	1058.81081			

Root MSE	4.66305	R-square	0.2812
Dep Mean	16.24324	Adj R-sq	0.2607
C.V.	28.70763		

Parameter Estimates

Variable	Parameter DF	Standard Estimate	T for H0: Error	Parameter=0	Prob > T	Variable Label
INTERCEP	1	9.919053	1.87303537	5.296	0.0001	Intercept
ADEGRE	1	2.463106	0.66559957	3.701	0.0007	adequacy of resources

Stability for Five Years

Model: MODEL1

Dependent Variable: Resource Acquisition

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	1	288.36412	288.36412	13.422	0.0008
Error	36	773.45167	21.48477		
C Total	37	1061.81579			

Root MSE	4.63517	R-square	0.2716
Dep Mean	16.28947	Adj R-sq	0.2513
C.V.	28.45498		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	9.591388	1.97687579	4.852	0.0001	Intercept
STABILIT	1	2.194200	0.59892303	3.664	0.0008	stability for five years

Type of Budget

Model: MODEL1

Dependent Variable: Resource Acquisition

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	1	243.52817	243.52817	10.714	0.0024
Error	36	818.28762	22.73021		
C Total	37	1061.81579			

Root MSE	4.76762	R-square	0.2294
Dep Mean	16.28947	Adj R-sq	0.2079
C.V.	29.26811		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	10.518664	1.92522679	5.464	0.0001	Intercept
BUDLINE	1	1.906876	0.58257205	3.273	0.0024	type of budget

Likelihood Center will be Permanent

Model: MODEL1

Dependent Variable: Resource Acquisition
Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	1	196.79816	196.79816	8.892	0.0055
Error	31	686.11094	22.13261		
C Total	32	882.90909			

Root MSE	4.70453	R-square	0.2229
Dep Mean	15.81818	Adj R-sq	0.1978
C.V.	29.74129		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	20.029393	1.63252776	12.269	0.0001	Intercept
PERMAN	1	-1.432680	0.48045759	-2.982	0.0055	likelihood center will be permanent

Impetus for Starting Center

Model: MODEL1

Dependent Variable: Resource Acquisition

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	1	179.12927	179.12927	7.306	0.0104
Error	36	882.68652	24.51907		
C Total	37	1061.81579			

Root MSE	4.95167	R-square	0.1687
Dep Mean	16.28947	Adj R-sq	0.1456
C.V.	30.39800		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	12.103448	1.74463366	6.938	0.0001	Intercept
IMPETUS	1	1.032915	0.38214964	2.703	0.0104	impetus for establishing center

Expenditures on the Physical Plant

Model: MODEL1

Dependent Variable: Resource Acquisition

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	1	176.45324	176.45324	7.398	0.0106
Error	31	739.42555	23.85244		
C Total	32	915.87879			

Root MSE	4.88390	R-square	0.1927
Dep Mean	15.93939	Adj R-sq	0.1666
C.V.	30.64041		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	14.641382	0.97496264	15.017	0.0001	Intercept
EXPPHY	1	0.359953	0.13234183	2.720	0.0106	center expenditure: physical plant

Permanent Faculty

Model: MODEL1

Dependent Variable: Resource Acquisition

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	1	154.51418	154.51418	6.841	0.0133
Error	33	745.37154	22.58702		
C Total	34	899.88571			

Root MSE	4.75258	R-square	0.1717
Dep Mean	15.94286	Adj R-sq	0.1466
C.V.	29.81009		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	14.020311	1.08887764	12.876	0.0001	Intercept
FACPER	1	0.975204	0.37285583	2.616	0.0133	permanent faculty

Administrative Staff

Model: MODEL1

Dependent Variable: Resource Acquisition

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	1	154.84149	154.84149	6.699	0.0142
Error	33	762.75851	23.11389		
C Total	34	917.60000			

Root MSE	4.80769	R-square	0.1687
Dep Mean	16.20000	Adj R-sq	0.1436
C.V.	29.67711		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	13.730215	1.25337444	10.955	0.0001	Intercept
ADMSTA	1	1.509912	0.58337065	2.588	0.0142	administrative staff

Activities: Community Projects

Model: MODEL1

Dependent Variable: Resource Acquisition

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	1	124.80286	124.80286	4.688	0.0385
Error	30	798.69714	26.62324		
C Total	31	923.50000			

Root MSE	5.15977	R-square	0.1351
Dep Mean	15.87500	Adj R-sq	0.1063
C.V.	32.50250		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	7.365714	4.03462618	1.826	0.07	Intercept
COMM	1	4.777143	2.20641094	2.165	0.0385	community projects

Type of Facility

Model: MODEL1

Dependent Variable: Resource Acquisition

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	1	120.33333	120.33333	4.601	0.0388
Error	36	941.48246	26.15229		
C Total	37	1061.81579			

Root MSE	5.11393	R-square	0.1133
Dep Mean	16.28947	Adj R-sq	0.0887
C.V.	31.39408		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	3.622807	5.96304778	0.608	0.5473	Intercept
FACILITY	1	3.166667	1.47626472	2.145	0.0388	type of facility

Relationship of the Center to the Institution

Model: MODEL1

Dependent Variable: Resource Acquisition

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	1	117.32121	117.32121	4.337	0.0449
Error	34	919.65102	27.04856		
C Total	35	1036.97222			

Root MSE	5.20082	R-square	0.1131
Dep Mean	16.47222	Adj R-sq	0.0871
C.V.	31.57329		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	8.395936	3.97358569	2.113	0.0420	Intercept
RELAT	1	1.720392	0.82605951	2.083	0.0449	relationship of center to other units

Mission: Research

Model: MODEL1

Dependent Variable: Resource Acquisition

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	1	110.08407	110.08407	4.202	0.0481
Error	34	890.66593	26.19606		
C Total	35	1000.75000			

Root MSE	5.11821	R-square	0.1100
Dep Mean	16.58333	Adj R-sq	0.0838
C.V.	30.86357		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	13.090558	1.90544140	6.870	0.0001	Intercept
MISSRES	1	1.479293	0.72162237	2.050	0.0481	mission:research

Job of Director: Teaching

Model: MODEL1

Dependent Variable: Resource Acquisition

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	1	90.73519	90.73519	4.231	0.0488
Error	29	621.97448	21.44740		
C Total	30	712.70968			

Root MSE	4.63113	R-square	0.1273
Dep Mean	15.90323	Adj R-sq	0.0972
C.V.	29.12072		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	23.467054	3.77029635	6.224	0.0001	Intercept
JOBTEACH	1	-0.953165	0.46341241	-2.057	0.0488	teaching

APPENDIX Q

PREDICTOR VARIABLE FOR Career goal satisfaction
Likelihood Center will be Permanent

Dependent Variable: CAREER
Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	1	52.25286	52.25286	7.862	0.0106
Error	21	139.57323	6.64634		
C Total	22	191.82609			

Root MSE	2.57805	R-square	0.2724
Dep Mean	28.91304	Adj R-sq	0.2377
C.V.	8.91657		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	31.239496	0.98863723	31.599	0.0001	Intercept
PERMAN	1	-0.849340	0.30291295	-2.804	0.0106	likelihood center will be permanent

Job of Director: Budgeting

Model: MODEL1
 Dependent Variable: CAREER

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	1	46.58608	46.58608	5.600	0.0282
Error	20	166.36847	8.31842		
C Total	21	212.95455			

Root MSE	2.88417	R-square	0.2188
Dep Mean	29.04545	Adj R-sq	0.1797
C.V.	9.92984		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	24.854530	1.87465103	13.258	0.0001	Intercept
JOBBUD	1	0.668118	0.28232277	2.367	0.0282	budgeting

Permanent Faculty

Model: MODEL1
 Dependent Variable: CAREER

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	1	33.14142	33.14142	4.079	0.0552
Error	23	186.85858	8.12429		
C Total	24	220.00000			

Root MSE	2.85031	R-square	0.1506
Dep Mean	28.80000	Adj R-sq	0.1137
C.V.	9.89692		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	27.686532	0.79303119	34.912	0.0001	Intercept
FACPER	1	0.525221	0.26004517	2.020	0.0552	permanent faculty

STABILITY FOR FIVE YEARS

Model: MODEL1
 Dependent Variable: CAREER

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	1	34.00000	34.00000	4.035	0.0555
Error	25	210.66667	8.42667		
C Total	26	244.66667			

Root MSE 2.90287 R-square **0.1390**
 Dep Mean 28.77778 Adj R-sq **0.1045**
 C.V. 10.08720

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	25.777778	1.59458051	16.166	0.0001	Intercept
STABILIT	1	1.000000	0.49783847	2.009	0.0555	stability for five years

**APPENDIX R
PREDICTOR VARIABLES FOR ORGANIZATIONAL HEALTH**

Adequacy of Space

Model: MODEL1
Dependent Variable: WORK

Analysis of Variance

Source	Sum of DF	Mean Squares	Square	F Value	Prob>F
Model	1	109.02514	109.02514	6.150	0.0192
Error	29	514.07163	17.72661		
C Total	30	623.09677			

Root MSE 4.21030 R-square **0.1750**
 Dep Mean 24.35484 Adj R-sq **0.1465**
 C.V. 17.28732

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	19.909929	1.94529966	10.235	0.0001	Intercept
SPACE	1	1.548227	0.62428674	2.480	0.0192	adequacy of space

Whose Resources Faculty Use?

Model: MODEL1
 Dependent Variable: WORK

Analysis of Variance

Source	Sum of DF	Mean Squares	Square	F Value	Prob>F
Model	1	69.92613	69.92613	4.087	0.0529
Error	28	479.04054	17.10859		
C Total	29	548.96667			

Root MSE 4.13625 R-square **0.1274**
 Dep Mean 23.96667 Adj R-sq **0.0962**
 C.V. 17.25836

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	20.594595	1.83094484	11.248	0.0001	Intercept
RESOUR	1	1.331081	0.65840314	2.022	0.0529	whose resources do faculty use

Percentage of Director's Time in Teaching

Model: MODEL1
 Dependent Variable: WORK

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	1	60.32048	60.32048	3.921	0.0569
Error	30	461.55452	15.38515		
C Total	31	521.87500			

Root MSE	3.92239	R-square	0.1156
Dep Mean	23.93750	Adj R-sq	0.0861
C.V.	16.38597		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	25.580897	1.08149495	23.653	0.0001	Intercept
TIMETEA	1	-0.500845	0.25294235	-1.980	0.0569	% teaching

**APPENDIX S
PREDICTOR VARIABLES FOR QUALITY OF FACULTY**

Goal: Student Satisfaction

Model: MODEL1
Dependent Variable: FACULTY

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	1	201.42605	201.42605	9.587	0.0048
Error	25	525.24062	21.00962		
C Total	26	726.66667			

Root MSE	4.58363	R-square	0.2772
Dep Mean	20.11111	Adj R-sq	0.2483
C.V.	22.79151		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	25.691279	2.00648774	12.804	0.0001	Intercept
GOASTU	1	-0.972029	0.31392842	-3.096	0.0048	goals:student satisfaction

Job of Director: Fundraising

Model: MODEL1
 Dependent Variable: FACULTY

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	1	132.58145	132.58145	6.901	0.0134
Error	30	576.38730	19.21291		
C Total	31	708.96875			

Root MSE	4.38325	R-square	0.1870
Dep Mean	21.03125	Adj R-sq	0.1599
C.V.	20.84162		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	26.521407	2.22898542	11.898	0.0001	Intercept
JOBFUND	1	-0.747596	0.28459159	-2.627	0.0134	fundraising

Activities with State Agencies

Model: MODEL1
 Dependent Variable: FACULTY

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	1	147.12159	147.12159	6.045	0.0202
Error	29	705.84615	24.33952		
C Total	30	852.96774			

Root MSE	4.93351	R-square	0.1725
Dep Mean	19.96774	Adj R-sq	0.1439
C.V.	24.70740		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	9.076923	4.51749416	2.009	0.0539	Intercept
STATE	1	5.923077	2.40915753	2.459	0.0202	state agencies

Percentage of Director's Time Fundraising

Model: MODEL1

Dependent Variable: FACULTY

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	1	103.83406	103.83406	5.032	0.0324
Error	30	619.04094	20.63470		
C Total	31	722.87500			

Root MSE	4.54254	R-square	0.1436
Dep Mean	21.18750	Adj R-sq	0.1151
C.V.	21.43973		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	18.243971	1.53840274	11.859	0.0001	Intercept
TIMEFUN	1	0.682557	0.30427648	2.243	0.0324	% fundraising

Goal: Interdisciplinary Collaboration

Model: MODEL1
 Dependent Variable: FACULTY

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	1	128.75611	128.75611	4.939	0.0342
Error	29	756.08260	26.07181		
C Total	30	884.83871			

Root MSE	5.10606	R-square	0.1455
Dep Mean	20.19355	Adj R-sq	0.1160
C.V.	25.28558		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	23.451520	1.72925746	13.562	0.0001	Intercept
GOAINT	1	-0.821115	0.36949249	-2.222	0.0342	goal: interdisciplinary collaboration

**APPENDIX T
PREDICTOR VARIABLES FOR NON-ACADEMIC**

Center Mission Compatibility to Mission of Institution

Model: MODEL1
Dependent Variable: NOACAD

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	1	424.03846	424.03846	14.391	0.0008
Error	25	736.62821	29.46513		
C Total	26	1160.66667			

Root MSE	5.42818	R-square	0.3653
Dep Mean	36.22222	Adj R-sq	0.3400
C.V.	14.98577		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	21.414530	4.04073540	5.300	0.0001	Intercept
MISSION	1	4.038462	1.06455350	3.794	0.0008	center mission vs. institutionmission

Goal: Personal Development

Model: MODEL1
 Dependent Variable: NOACAD

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	1	422.73074	422.73074	12.884	0.0017
Error	21	689.00839	32.80992		
C Total	22	1111.73913			

Root MSE	5.72799	R-square	0.3802
Dep Mean	36.52174	Adj R-sq	0.3507
C.V.	15.68380		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	28.621548	2.50412794	11.430	0.0001	Intercept
GOAPERS	1	1.622361	0.45197882	3.589	0.0017	goal: personal development

Job of Director: Political Activity

Model: MODEL1
 Dependent Variable: NOACAD

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	1	296.84359	296.84359	8.428	0.0088
Error	20	704.42914	35.22146		
C Total	21	1001.27273			

Root MSE	5.93477	R-square	0.2965
Dep Mean	35.81818	Adj R-sq	0.2613
C.V.	16.56915		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	25.707285	3.70552636	6.938	0.0001	Intercept
JOBPOL	1	1.698013	0.58489902	2.903	0.0088	in politics

Goal: Academic Development

Model: MODEL1
 Dependent Variable: NOACAD

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	1	280.22700	280.22700	7.673	0.0109
Error	23	839.93300	36.51883		
C Total	24	1120.16000			

Root MSE	6.04308	R-square	0.2502
Dep Mean	36.56000	Adj R-sq	0.2176
C.V.	16.52921		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	19.858250	6.14922430	3.229	0.0037	Intercept
GOAACA	1	1.969546	0.71099989	2.770	0.0109	goal: academic development

Funding Source: Endowments

Model: MODEL1
 Dependent Variable: NOACAD

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	1	261.52725	261.52725	7.344	0.0125
Error	23	819.03275	35.61012		
C Total	24	1080.56000			

Root MSE	5.96742	R-square	0.2420
Dep Mean	35.76000	Adj R-sq	0.2091
C.V.	16.68742		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	34.581877	1.27019458	27.226	0.0001	Intercept
FUNEND	1	0.200361	0.07393354	2.710	0.0125	funding source: endowments

Year of Founding

Model: MODEL1
 Dependent Variable: NOACAD

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	1	270.62765	270.62765	7.002	0.0148
Error	22	850.33068	38.65139		
C Total	23	1120.95833			

Root MSE	6.21702	R-square	0.2414
Dep Mean	36.04167	Adj R-sq	0.2069
C.V.	17.24955		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	-975.170447	382.15641584	-2.552	0.0182	Intercept
FOUND	1	0.511100	0.19315356	2.646	0.0148	date of founding

Source of Funding: Federal Funds

Model: MODEL1
 Dependent Variable: NOACAD

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	1	247.92239	247.92239	6.791	0.0152
Error	25	912.74428	36.50977		
C Total	26	1160.66667			

Root MSE	6.04233	R-square	0.2136
Dep Mean	36.22222	Adj R-sq	0.1821
C.V.	16.68128		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	39.216157	1.63469447	23.990	0.0001	Intercept
FUNGRA	1	-0.092279	0.03541185	-2.606	0.0152	funding source: federal funds

Goal: Acquiring Resources

Model: MODEL1
 Dependent Variable: NOACAD

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	1	232.55855	232.55855	5.766	0.0252
Error	22	887.27478	40.33067		
C Total	23	1119.83333			

Root MSE	6.35064	R-square	0.2077
Dep Mean	36.41667	Adj R-sq	0.1717
C.V.	17.43884		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	42.152416	2.71768460	15.510	0.0001	Intercept
GOARES	1	-0.962643	0.40088233	-2.401	0.0252	acquiring resources

Mission: Instruction

Model: MODEL1
Dependent Variable: NOACAD

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	1	174.61895	174.61895	4.583	0.0431
Error	23	876.42105	38.10526		
C Total	24	1051.04000			

Root MSE	6.17295	R-square	0.1661
Dep Mean	35.72000	Adj R-sq	0.1299
C.V.	17.28148		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	26.473684	4.49229873	5.893	0.0001	Intercept
MISSIN	1	3.789474	1.77021369	2.141	0.0431	mission: instruction

Activity: Adult Education

Model: MODEL1
 Dependent Variable: NOACAD

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	1	142.23377	142.23377	4.130	0.0556
Error	20	688.85714	34.44286		
C Total	21	831.09091			

Root MSE	5.86880	R-square	0.1711
Dep Mean	36.36364	Adj R-sq	0.1297
C.V.	16.13921		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	27.714286	4.43639861	6.247	0.0001	Intercept
ADLED	1	5.285714	2.60106925	2.032	0.0556	adult education

APPENDIX U
PREDICTOR VARIABLES FOR THE DOMAIN OF FACULTY AND STAFF JOB
SATISFACTION

Goal: Academic Development

Model: MODEL1
 Dependent Variable: JOB

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	1	63.30698	63.30698	8.579	0.0063
Error	31	228.75362	7.37915		
C Total	32	292.06061			

Root MSE	2.71646	R-square	0.2168
Dep Mean	10.57576	Adj R-sq	0.1915
C.V.	25.68571		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	4.449275	2.14443470	2.075	0.0464	Intercept
GOAACA	1	0.748792	0.25564582	2.929	0.0063	goal: academic development

To Whom the Director Reports

Model: MODEL1
 Dependent Variable: JOB

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	1	71.70421	71.70421	8.077	0.0074
Error	35	310.72822	8.87795		
C Total	36	382.43243			

Root MSE	2.97959	R-square	0.1875
Dep Mean	10.35135	Adj R-sq	0.1643
C.V.	28.78454		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	7.582575	1.09046509	6.954	0.0001	Intercept
REPORT	1	1.313394	0.46214581	2.842	0.0074	to whom the director

reports

Mission: Instruction

Model: MODEL1
 Dependent Variable: JOB

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	1	64.46390	64.46390	6.711	0.0145
Error	31	297.77852	9.60576		
C Total	32	362.24242			

Root MSE	3.09932	R-square	0.1780
Dep Mean	10.48485	Adj R-sq	0.1514
C.V.	29.55995		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	6.248322	1.72207325	3.628	0.0010	Intercept
MISSIN	1	1.889262	0.72928903	2.591	0.0145	mission: instruction

Percentage of Director's Time in Political Activity

Model: MODEL1
 Dependent Variable: JOB

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	1	49.25463	49.25463	6.440	0.0175
Error	26	198.85251	7.64817		
C Total	27	248.10714			

Root MSE	2.76553	R-square	0.1985
Dep Mean	10.17857	Adj R-sq	0.1677
C.V.	27.17015		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	7.119553	1.31384168	5.419	0.0001	Intercept
TIMEPOL	1	0.620670	0.24457743	2.538	0.0175	% in politics

Goal: Community Interaction

Model: MODEL1
 Dependent Variable: JOB

Analysis of Variance

Source	Sum of DF	Mean Squares	Square	F Value	Prob>F
Model	1	52.90998	52.90998	5.708	0.0241
Error	27	250.26243	9.26898		
C Total	28	303.17241			

Root MSE	3.04450	R-square	0.1745
Dep Mean	10.44828	Adj R-sq	0.1439
C.V.	29.13878		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	14.331000	1.72064321	8.329	0.0001	Intercept
GOACOM	1	-0.608643	0.25474748	-2.389	0.0241	goal:community interaction

Activities with State Agencies

Model: MODEL1
 Dependent Variable: JOB

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	1	42.32481	42.32481	5.591	0.0250
Error	29	219.54615	7.57056		
C Total	30	261.87097			

Root MSE	2.75146	R-square	0.1616
Dep Mean	9.93548	Adj R-sq	0.1327
C.V.	27.69331		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	15.776923	2.51944853	6.262	0.0001	Intercept
STATE	1	-3.176923	1.34360957	-2.364	0.0250	state agencies

Activities: Community Projects

Model: MODEL1
 Dependent Variable: JOB

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	1	38.69394	38.69394	4.952	0.0343
Error	28	218.77273	7.81331		
C Total	29	257.46667			

Root MSE 2.79523 R-square **0.1503**
 Dep Mean 9.86667 Adj R-sq **0.1199**
 C.V. 28.33004

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	14.318182	2.06441429	6.936	0.0001	Intercept
COMM	1	-2.568182	1.15404267	-2.225	0.0343	community projects

Relationship between Director and the Subdivisions

Model: MODEL1
 Dependent Variable: JOB

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	1	31.53504	31.53504	4.911	0.0347
Error	29	186.20690	6.42093		
C Total	30	217.74194			

Root MSE 2.53395 R-square **0.1448**
 Dep Mean 9.48387 Adj R-sq **0.1153**
 C.V. 26.71857

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	3.827586	2.59256904	1.476	0.1506	Intercept
DIRSUB	1	1.551724	0.70019130	2.216	0.0347	relationship between director & subdivision

Academic Appointment of the Director

Model: MODEL1
 Dependent Variable: JOB

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	1	46.04256	46.04256	4.791	0.0354
Error	35	336.38988	9.61114		
C Total	36	382.43243			

Root MSE 3.10018 R-square **0.1204**
 Dep Mean 10.35135 Adj R-sq **0.0953**
 C.V. 29.94956

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	12.379218	1.05743551	11.707	0.0001	Intercept
DIRAPP	1	-1.230018	0.56197773	-2.189	0.0354	director

appointments

Adequacy of Space

Model: MODEL1
 Dependent Variable: JOB

Analysis of Variance

Source	Sum of DF	Mean Squares	Square	F Value	Prob>F
Model	1	48.00098	48.00098	4.735	0.0382
Error	28	283.86568	10.13806		
C Total	29	331.86667			

Root MSE	3.18403	R-square	0.1446
Dep Mean	10.73333	Adj R-sq	0.1141
C.V.	29.66489		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > T	Variable Label
INTERCEP	1	7.583948	1.55974431	4.862	0.0001	Intercept
SPACE	1	1.085995	0.49909156	2.176	0.0382	adequacy of space

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EDUCATION

Ed.D.

Educational Leadership
West Virginia University
Morgantown, W.V.

Dissertation Topic: *Domains of Organizational Effectiveness of Gerontology Centers*

Graduate Certificate

Gerontology
West Virginia University
Morgantown, W.V.

M.A.

Communications--Print Media
Wheaton College
Wheaton, Illinois

B.S.

Biblical Studies and Christian Education
Philadelphia College of Bible
Langhorn, PA

WORK EXPERIENCE

1998-present

Evaluator/Researcher/Development Officer

Generations Together
University of Pittsburgh
Pittsburgh, PA

Evaluation of intergenerational programs, research, grant writing, training, model program development

1997-1998

Program Manager

West Virginia University Center on Aging
Research Unit
PO Box 9126
Morgantown, WV

Duties related to the administration of the Research Unit of the Center on Aging including: budget management for four grant-funded projects, supervision of a secretary, coordination of activities for four projects of the Research unit, committee membership, grant writing and administration, and coordination of cooperative activities with the Administrative Unit of the Center on Aging.

1993 - 1998

Program Manager

TRANSFER Project
Department of Behavioral Medicine and Psychiatry
and Center on Aging
West Virginia University School of Medicine
Morgantown, W.V.

Duties include: workshop coordination; community/agency communication; training material preparation; budget overview; supervision of secretary; workshop presentations; grant preparation; committee representation.

September 1987 -
February 1993

Program Associate

Gerontology Center, West Virginia University,
Morgantown, W.V. 26506.

Duties included grant proposal writing and administration, assisting faculty with grant proposals, literature searches, background

research, communication with funding agencies, facilitating task forces.

December 1991
- April, 1992

**Project Administrator for Church in Rural
Aging Networks: Education and Collaborative Projects Grant**

Responsibilities include curriculum preparation, workshop design and implementation, data collection and research article preparation, workshop presentations, and other duties necessary for daily administration of the project.

1989- present

Lecturer - Introduction to Gerontology course (MDS 50), W.V.U.

October 1988 -
June 1990

**Coordinator
Model Curriculum in Geriatric Education Project**

The Ohio Valley Appalachia Regional Geriatric Center (OVAR/GEC). OVAR/GEC is a consortium of universities concerned with the enhancement of geriatric education of which West Virginia University was a member institution.

Duties include: Coordinating the planning of five model curriculum workshops presented by each of the member institutions on WVU's campus over a two-year period and five curriculum workshops presented by W.V.U. at the member institutions, such as preparing notebook material, bibliographies, and audio visuals, booking rooms, refreshments, lodging, etc.

June 1987 -
August 1987

Copy Editor for "Giving Care" a training manual caregivers of Alzheimer's Disease patients.

Duties include: some writing, preparation of copy for publication, and writing script for slide presentation.

January, 1987 -
May, 1987

**Graduate Research Assistant on State-wide
Alzheimer's Training Grant**

Gerontology Center, West Virginia University
Part of a five-member team giving 30 workshops entitled, "Caring for the Memory-Impaired Patient and Yourself" to professional and private caregivers statewide. Responsibilities

include: writing and editing training manuals, publicity, creating and producing visual aides, teaching workshop sections.

April 1977 -
August, 1985

Staff Assistant/Medical Education

Mount Auburn Hospital
Cambridge, MA 02238

Planned yearly and daily work schedules for 30+ medical residents at a Harvard Medical School affiliated hospital. Planned and implemented a hospital-based second-year HMS clinical course. Responsible for record-keeping and tabulation of continuing education credits for medical staff. Served as liaison between HMS and hospital concerning houseofficer training issues. Wrote a DHEW grant for the training of primary care residents. Edited articles for professional journals. Wrote policy proposals. Wrote script for promotional video. Assisted manager with departmental budget. Served as secretary to medical staff education committee. Supervised one secretary, including yearly evaluations. Implemented and later supervised the interview process for internships in Internal Medicine.

July 1971 -
October, 1976

Publication Editor for TEEN POWER

Scripture Press Publications, Inc.
Wheaton, Illinois, 60187

Edited an 8-page Sunday school magazine for junior high youths. Selected and edited all articles submitted by authors. Wrote original articles including cartoon sequences. Communicated with authors by phone and letter. Represented the company at numerous publishing and writers conferences. Interviewed subjects for stories and wrote articles from the interviews. Worked with artists and printers.

**MEMBERSHIPS AND
HONORS**

- 1998- Chair, Nomination Committee, North Central West Virginia Alzheimer's Chapter, Board of Directors
- 1997- Member, North Central West Virginia Alzheimer's Chapter Board of Directors
- 1997- Chair, Education Committee, North Central West Virginia Alzheimer's Chapter Board of Directors

1997-	Member, International Rural Aging Project Committee, WVU Center on Aging
1996-	Member, Program Development Committee, Association of Gerontology in Higher Education
1995- 1996	Member, Research Committee, Association of Gerontology in Higher Education
1994-Present	Member, Rural Aging Subcommittee, Gerontological Society of America
1992 - Present	Member, Gerontological Society of America
1991-1993	Member, Community Living Initiatives Corporation, Morgantown, WV
1991-1993	Member, Council for Planned Approach to Community Health, Morgantown, W.V.
1990	Certificate, Model Curriculum Series in Geriatric Education
1983 - 1985	Certificate Program in Technical Communications University of Lowell, Lowell, MA
1974	Certificate in Layout Design, Printer's Institute, Chicago, IL

PUBLICATIONS and RESEARCH

Nichols, A. (completed). "Domains of organizational effectiveness of gerontology centers in higher education." Dissertation research to fulfill requirement for Ed.D., Education Administration.

Rankin, ED, Keefover, RW, and Nichols, AH. (November 2, 1996). Training rural health care professionals in assessment and care of dementia. Gerontology and Geriatrics Education, 33-48.

Nichols, A. (1995). Planning and implementing a statewide collaborative gerontology education program for religious professionals in rural areas. Journal for Religious Gerontology. 9, 2, 51-67.

Nichols, A. (1986). "The transition to caregiving by older adults." A research paper done to fulfill requirement for Gerontology Graduate Certificate.

PRESENTATIONS/TEACHING

Nichols, A. "Evaluation of Intergenerational Programs", The Sixth Intergenerational Training Institute, Generations Together, Pittsburgh, PA. June 18, 1998

Nichols, A. "Domains of Organizational Effectiveness in Gerontology Center" Presentation at the Association for Gerontology in Higher Education Annual Meeting, Winston Salem, NC, February 21, 1998.

Nichols, A, Rankin, E. The TRANSFER Project--Training rural health care and social service providers in assessment and care of dementia. Presentation at the Gerontological Society of America Annual Meeting, November 17, 1997.

Nichols, A. "Training Rural Alzheimer's Disease Networks for Education and Referral" Workshop -- Summer Institute on Aging, West Virginia University School of Social Work, June, 1997.

Nichols, A. "Introduction to Alzheimer's Disease." Introduction to Gerontology MDS 50 course, West Virginia University, October 9, 10, 1996.

Nichols, A. "Introduction to Alzheimer's Disease." Introduction to Gerontology MDS 50 course, West Virginia University, April 9, 1996.

Nichols, A. "Alzheimer's Disease" Sociology of Aging Course, W.V.U, April 1, 1996.

Rankin, E., Keefover, R. and Nichols, A. "Training Rural Alzheimer's Networking Services for Education and Referral: Training materials and educational strategies." To be presented at the Association for Gerontology in Higher Education Annual Meeting, Philadelphia, PA, March, 1996.

Douglas, V. and Nichols, A. "Prevention and Elders." Facilitated a discussion group at the Prevention Research Center Symposium," at West Virginia University, December, 1995.

Nichols, A. (1993-present) "Creating a resource directory for older adult services." The TRANSFER Project workshops, Dept. of Behavioral Medicine and Psychiatry, WVU. School of Medicine.

Nichols, A. (1993-present). "Accessing services for Alzheimer's disease in rural areas." The TRANSFER Project workshops, Dept. of Behavioral Medicine and Psychiatry, W.V.U. School of Medicine.

Nichols, A. "A historical perspective on institutes and centers: A comparison of gerontology with other fields of study." Presented at the Association for Gerontology in Higher Education Annual Meeting, Fort Worth, TX, February , 1995

Nichols, A., Rankin, E., Keefover, R., & Briggs, R. "Training rural Alzheimer's networking

services for education and referral." Presented at the Association for Gerontology in Higher Education Annual Meeting, Cleveland, OH, March, 1994.

Nichols, A. "Employment and Aging" Presented to the Introduction to Gerontology MDS 50 course at West Virginia University, 1991-1994.

Schneider, V., Briggs, R., Nichols, A. "The Church and Rural Aging Networks for Education and Collaborative Efforts Project". Presented at the Association of Gerontology in Higher Education Annual Meeting, Baltimore, MD., February, 28, 1990.

Nichols, A. Presentation on "Social Issues of Aging" CRANECE Project, in Princeton, W.V., 1991.

Nichols, A. Presentations to caregivers on environmental home safety, communication with the memory-impaired patient, difficult behaviors, elder abuse and stress reduction. Alzheimer's Disease Caregiver Training Project, WVU. Gerontology Center, 1986.