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UNIVERSITY EFFECTIVENESS WITH RESPECT TO PERCEIVED
STUDENT SATISFACTION: A COMPARATIVE STUDY
OF SELECTED FACTORS

DISSERTATION

Presented to the Graduate Council of the
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By

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The problem of this study concerned the needs of business students and their perceptions of effectiveness with respect to their satisfaction at two universities. A related purpose was to measure, evaluate, and analyze students' needs and perceptions of the effectiveness of their universities with respect to their levels of satisfaction. An instrument developed by Kleemann was modified and validated for use in this study. A total of 639, or 96.8 percent, of the students contacted participated in the study.

Data were tabulated and analyzed utilizing the t-test for independent samples to determine whether significant differences existed among perceptions of Texas Woman's University and University of North Texas students. Stepwise multiple regression was used to determine whether selected demographic variables (student characteristics) were related to differences in students' perceptions of the effectiveness of their universities. One-way analysis of variance and least significant difference multiple comparison tests were

used to determine where significant differences existed. Descriptive statistics were used to rank order the importance and level of accomplishment for each item and activity domain. A .05 level of significance was established to determine critical differences in responses.

Based on analyses of data, the following conclusions were drawn.

1. The overall perceptions of the respondents show students' satisfaction with key university services can be important determinants of whether they choose to continue, or to transfer to another college or university.

2. Students perceived TWU and UNT most positively on academic and student life measures.

3. TWU and UNT students' characteristics significantly influenced their perceptions of the effectiveness of their university.

4. Student perceptions of university effectiveness change over time.

5. TWU women were more satisfied with most aspects of the various organizational activities than were UNT women.

7. The universities' effectiveness was perceived more critically by students whose characteristics differed most from those for whom the universities were originally designed.

8. Neither TWU nor UNT excelled in all domains.

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CHAPTER I

INTRODUCTION

Students enrolled in college for the first time make judgements early in their academic careers regarding several characteristics of the institutions they are attending. Whether students' first impressions are positive or negative often determines their decisions to stay or to transfer to another institution.

The education of students is an extremely important activity in today's society. Students are a valuable national resource for institutions of higher learning. The decision of students to attend or not attend a particular college or university is an important one. Changes which are occurring at an increasingly accelerated pace have resulted in a knowledge explosion in the fields of finance, medicine, economics, engineering, politics, and others (Mitchell 1982, 548). Communication has become instantaneous; television allows viewers to witness events from all over the world as they happen. The public is continuously provided with new products, ideas, and innovations. Society has become highly mobile in terms of jobs and places of residence. Clinical evidence suggests that these changes should be monitored because increases in

the number of changes experienced in life result in increased stress and mental and physical illnesses (Mitchell 1982, 546-548). Dealing with changes has become a necessity of everyday life.

The same is true in the academic world of colleges, universities, and educational institutions. Some of the demographic factors which may affect the quantity and quality of students during the next twenty-five years include the basic age distribution, family structure, mortality and morbidity patterns, immigration, the role of minorities, and geographic shifts (Cornish 1990; Hopkins 1990; Joerges 1990; Naisbitt and Aburdene 1990; Rosenbaum 1990; Stage 1991). The nations of the world are more closely interrelated than ever in history; recent changes in Eastern Europe and the Soviet Union are good examples. Throughout the 1990s, the number of persons under eighteen years of age will decrease and the number of persons in the twenties to forties age bracket will increase (A Work Revolution in U. S. Industry 1983, 10-110; Cornish 1990; Davis 1976; Guzzardi 1979, 92-106; Joerges 1990; Kahn 1977; Naisbitt and Aburdene 1990; Rosenbaum 1990; Scott 1974; Stage 1991; Wirthlin 1975). Women and other minorities are expected to make up a larger share of new entrants into colleges and universities in the 1990s. The demographic changes predicted for the next twenty years indicate that colleges and universities will have to draw from a broader

pool of college-age persons, primarily minorities, in order to maintain adequate enrollment levels (Estrada 1988, 18).

According to Estrada, the long-term future of colleges and universities may be linked to their abilities to attract, recruit, and retain minority students. High dropout rates among minority students currently result in the serious under-education of this growing segment of the populace (Fields 1988, 20-21). Previous studies have demonstrated that minorities can succeed in a variety of settings when institutions accept the responsibility for improving the environment. Data also indicate that after the year 2000, minorities will make up the largest portion of the population in the southwest under the age of thirty (Fields 1988, 27). These predictions create many concerns in institutions of higher learning. As the demographic characteristics of students change, a better understanding of how these changes affect the perceptions of students can help administrators to understand and influence the environment in which institutions exist and upon which they depend for resources (Kleemann and Richardson 1985).

These factors have implications in the definition and assessment of organizational effectiveness. Individuals are continually faced with the need to make judgements about the effectiveness of organizations (Cameron and Whetten 1983b, 1). For example, a student decides which public school to attend, which company's stock to purchase, or which college

to attend. These decisions and many more depend on judgements of organizational effectiveness. Several researchers have suggested the need for a meaningful analysis (Cameron 1978a, 1981b, 1986b; Cameron and Whetten 1983a; Ghorpade 1971; Goodman and Pennings 1977; Kleemann and Richardson 1985; Mott 1972; Price 1968, 1972b; Spray 1976; Steers 1975, 1977; Weick 1976; Zammuto 1982).

Administrators can perform better when they understand how students perceive the effectiveness of the institutions they attend in dealing with relevant issues. Colleges and universities are labor-intensive organizations whose most important resources are students. Students bring certain needs to their institutions. If institutions meet these needs, the students remain in the institutions. If the institutions fail to meet these needs, students may transfer to institutions which are better suited to meet their perceived needs. A thorough understanding of the perceptions of students can help alleviate the enrollment pressures and problems facing institutions of higher education.

Students' attitudes differ in various colleges and universities. In order to improve the effectiveness of schools, a clear understanding of what constitutes effective performance, and thus student satisfaction, is essential. In order to increase student satisfaction, associated variables in various university settings must be explored.

Statement of the Problem

The problem of this study concerns business students' perceptions of the effectiveness of the universities they attend.

Purpose of the Study

The purpose of this study was to investigate, evaluate, and analyze the perceived needs of business students in terms of selected activity areas and the perceived effectiveness of meeting those needs by the institutions of higher learning they attend. This study was designed to provide practitioners with information concerning students' perceptions of the effectiveness in selected activity areas of the university they attend.

Propositions

To carry out the purpose of this study, answers were sought to the following propositions:

Proposition 1. Business students in predominantly female and coeducational universities will differ in their perceptions of the importance of identified activity domains of the universities they attend.

Proposition 2. Business students in predominantly female and coeducational institutions will differ in their perceptions of how well identified activity domains are achieved by the universities they attend.

Proposition 3. Business students in predominantly female and coeducational universities will differ in their perceptions of the importance and actual level of achievement (effectiveness) of identified activity domains of the universities they attend.

Proposition 4. Selected demographic variables will be related to differences in students' perceptions of the effectiveness of identified activity domains of the university they attend.

Definitions of Terms

The following terms are defined as they relate to this study:

Academic units within a university that provide students with a collegiate education in business are sometimes referred to as a school of business, a college of business, or a department of business and economics.

Effectiveness discrepancy measure is "defined as the congruence between the importance of an activity and its perceived level of achievement" (Kleemann and Richardson 1985, 6).

Domains of activity were used to describe the ten areas of services provided for students as measured by the survey instrument. These ten domains were (1) programs and services for students, (2) emphasis of minorities and women, (3) quality of research and teaching, (4) dissemination of

research and knowledge, (5) workshops and counseling to broaden access, (6) athletics, (7) support of cultural activities, (8) availability of graduate programs, (9) leasing of facilities, and (10) increase of standards. Items for each activity domain are shown in Table 1. Questionnaire can be seen in Appendix G.

Effectiveness is defined as a value judgement which is based on university students' perceptions of congruence between the importance of several activity domains and how well the domains are achieved by the institution (Kleemann 1984; Kleemann and Richardson 1985). Strategic choice framework (Cameron and Whetten 1983b; Kleemann 1984; Kleemann and Richardson, 1985) research methodology was used in this study to assess the needs of students and their perceptions of the effectiveness of the state university they were attending.

Organizational activities refer to the sixty-six items included in the instrument used for this study.

Upper-class students are defined as students who are classified as juniors or seniors.

Background and Significance of the Study

The background for this study comes from an examination of the literature on organizational effectiveness and a desire to contribute meaningful research information.

Table 1.--A Listing of the Items that Constitute the Ten Activity Domains

Activity Domain 1: Programs and Services for Students

Item 32	. . .	Career and placement services
Item 20	. . .	Provide information to students
Item 33	. . .	Adequate study space
Item 22	. . .	Financial assistance services
Item 65	. . .	Academic advising
Item 47	. . .	Orientation programs for students
Item 11	. . .	Counseling for students
Item 52	. . .	Medical care for students
Item 51	. . .	Assist handicapped
Item 41	. . .	Sponsor student government
Item 40	. . .	Provide instructor evaluations
Item 17	. . .	Involve students in important decisions
Item 2	. . .	Remove poor teachers
Item 14	. . .	Provide transcripts with honors indicated
Item 7	. . .	Offer undergraduate degree programs
Item 36	. . .	Offer small classes

Activity Domain 2: Emphasizing Minorities and Women

Item 49	. . .	Recruit minority faculty
Item 23	. . .	Recruit minorities
Item 66	. . .	Tutoring for minorities
Item 18	. . .	Conduct research for minorities
Item 54	. . .	Information on minorities--degree
Item 31	. . .	Recruit and retain women faculty
Item 13	. . .	Accept international students

Activity Domain 3: Quality of Research and Teaching

Item 44	. . .	Reward good research
Item 38	. . .	Sponsor research--keep quality faculty
Item 42	. . .	Provide quality labs
Item 34	. . .	Reward good teaching
Item 56	. . .	Recruit scholars and researchers
Item 46	. . .	Provide library resources and services

Activity Domain 4: Research and Knowledge Dissemination

Item 12	. . .	Conduct research
Item 4	. . .	Conduct contract research
Item 8	. . .	Short courses--use research
Item 9	. . .	Publish books
Item 15	. . .	Computer literacy
Item 3	. . .	Provide leadership training
Item 6	. . .	Operate public television stations

Table 1.--Continued

Activity Domain 5: Workshops and Counseling to Broaden Access

Item 59	. . .	Offer workshops--study skills
Item 48	. . .	Offer workshops--health, recreation, hobbies
Item 58	. . .	Provide pregnancy counseling and health services
Item 15	. . .	Include computer literacy in degree programs
Item 43	. . .	Offer courses by telecommunication, etc.
Item 39	. . .	Offer remedial instruction

Activity Domain 6: Athletics

Item 21	. . .	Sponsor intercollegiate athletics
Item 64	. . .	Recruit athletics
Item 35	. . .	Sponsor intramurals

Activity Domain 7: Support Cultural Activities

Item 26	. . .	Sponsor art events, performances, etc.
Item 1	. . .	Sponsor films, exhibitions, productions, etc.

Activity Domain 8: Offer Graduate Programs

Item 63	. . .	Offer graduate programs--humanities
Item 60	. . .	Offer graduate programs--professional
Item 62	. . .	Develop professional graduate programs

Activity Domain 9: Leasing Facilities

Item 10	. . .	Lease facilities for profit
Item 16	. . .	Nonprofit use of facilities

Activity Domain 10: Increasing Standards

Item 57	. . .	Limit enrollment
Item 27	. . .	Require writing test to graduate

Source: Gary L. Kleemann and R. C. Richardson, Jr., 1985. Student characteristics and perceptions of university effectiveness. The Review of Higher Education, 9(1): 8-9.

However, interest in organizational effectiveness is not new.

Effectiveness is a universal concern among organizational administrators. In the context of colleges and universities, improvement of student learning and organizational performance is a prime interest and effort. When improvement is observed, it affords administrators feelings of satisfaction. This study is also unique in that it is designed to assess the needs of students in institutions of higher learning and, at the same time, assess students' perceptions of effectiveness with respect to their satisfaction at the university they are attending. The results of this study also provide information that is significant in the identification of the needs of students in institutions of higher education.

Before entering a college or university, potential students face the dilemma of choosing a college or university which best meets their personal needs. Inadequate investigation of the opportunities available often results in disappointment, and sometimes results in failure. It is often not until after registration that students discover that they based their choice of school on inadequate information. The failure to choose the best college or university to meet individual needs can make the difference between the completion of a successful education and dropping out of school or transferring to another

college or university. Administrators in institutions of higher education are concerned with the implementation of activities, both academic and non-academic, which are considered important for meeting the needs of students.

The results of this study could guide practitioners of higher education who are responsible for making decisions at both UNT and TWU to make the changes necessary for better educational programs. These improvements in the educational programs will increase students' satisfaction and, thus, priorities for improvement will be increased for both institutions. As a result, more students will pursue a higher education. Differences in the perceptions of students at a coeducational and a predominantly female institution are also investigated in this study.

As the number of high school graduates declines in coming years, administrators of colleges and universities must find ways to counteract the resultant declines in enrollment at their institutions.

Already the percentage of high school students going on to college has slipped from a peak of 55% in 1968 to about 47% in 1976. Experts once thought that 85% of high school graduates would go to college by 1990. They now expect 50% at most (Hallenbeck 1978, 19).

This decline of prospective students makes it imperative that administrators of institutions of higher education find ways to increase the effectiveness of their recruiting programs and to increase retention rates. Cope and Hannah (1975, 3) predicted that of the fifteen million

students who would enter college in the 1980s, five or six million would never earn degrees, thus "about 40 percent of entering freshmen in baccalaureate-granting institutions [would] never achieve a degree." Pantages and Creedon (1978, 49) agree with Prediger (1965) that "for every ten students who enter college in the United States, only four will graduate from that college four years later. . . . Of the six students who drop out, three will do so during the first year."

The periods just before and just after enrollment are critical to a student's decision to stay at their chosen university. According to Cope and Hannah (1975, 53), many students who withdraw during, or at the end of, the first semester consider withdrawal a real option even before enrolling in the university. Thus, it is extremely important that students entering college for the first time be guided through the early weeks and months of campus life in a way that provides positive experiences and as much satisfaction as possible.

The costs involved when students drop out are great. The institution loses the expenses involved in recruiting the students, but students experience a sense of failure and a loss of valuable time from their lives. This feeling of failure can affect students for many years and in many areas of their adult lives. Therefore, any reduction in the

number of dropouts is beneficial to the university and to students.

Research into why students leave has consistently indicated that major causes of dropping out of school or transferring to another school are isolation, dissonance between the campus and the individual, failure to reach a satisfactory level of academic achievement, and failure of the institution to meet students' needs (Astin 1975; Crockett 1977; Grieve 1970; Hallenbeck 1978; Pantages and Creedon 1978; Prediger 1965; Rever and Kojaku 1976; Sax 1968; Sheffield and Meskill 1974; Slocum 1956; Starr, Betz, and Menne 1971; Stern 1970).

Basic Assumptions

For this study, it was assumed that:

1. Subjects responded honestly to the survey instrument, "An Opinion Survey."
2. Organizational effectiveness can be measured, as found by Cameron (1978a), in institutions of higher education.
3. Effectiveness is perceived differently by different groups and individuals.
4. The respondents were representative of students' perceptions of effectiveness at the university they attended.

Delimitations of the Study

Due to restrictions on time and financial resources, the sample for this study was limited to students enrolled in business courses at two selected universities in the State of Texas. The findings might be applicable to other institutions similar to this setting or idea.

Target Population

The first step in sampling was to define the target population. The research population was made up of business students from the Texas Woman's University (TWU) and University of North Texas (UNT). Because of the nature of the study, business students were chosen in an effort to assure that the criteria and the main point of the study were met. Data were collected from a sample of 660 business students at the two universities.

The two institutions are public, state institutions. The enrollment of undergraduate business students was approximately 500 at TWU and approximately 6,000 at UNT in the fall 1990.

The total number of undergraduate seniors enrolled was approximately 100 at TWU and approximately 2,000 at UNT. One institution had predominantly female students and the other was coeducational.

Instrument

Surveys can be classified into three categories: telephone interviews, personal interviews, and questionnaires. This study made use of a questionnaire entitled "An Opinion Survey," which was administered in the students' classrooms. Many researchers have used student polls for assessing the perceptions of institutional effectiveness. Similarly, the instrument used for this study was an adaptation of an evaluative questionnaire developed by Richardson and others in 1984. The reliability and validity of the survey instrument were established by Kleemann in 1984. A factor analysis of responses as to the importance of each activity resulted in ten domains (see Appendix G) with alpha reliability coefficients ranging from .27 to .86. Reliability coefficients of less than .57 were found for only two domains. The overall reliability was .89 for the importance question and .93 for the done well question (Kleemann and Richardson 1985). It was assumed that the minor modifications made for this study did not affect the reliability and validity of the instrument used.

The instrument was administered during the fall semester 1990, to a sample of 660 students at two state universities in the North Texas Area following standard survey procedures. The survey format requested that respondents indicate the importance of each activity as well as how well it was being accomplished on a five-point

Likert-type scale (strongly agree, agree, neutral, disagree, strongly disagree).

Pilot Study

In order to ensure that the final questionnaire was appropriate for the purpose of this study, the activity statements were distributed to selected administrators and researchers at the two state universities selected for study. Administrators and researchers were asked to review the activity statements in order to determine that the items accurately described activities in which TWU and UNT engage, and to assure that the statements were comprehensive and that they adequately sampled the full range of major university activities (see Appendix G).

In addition, a pilot study was conducted in the College of Business at UNT on September 9, 1990. Twenty students were asked to read each item and to indicate any items in which the meaning was unclear. None of the students expressed difficulty with any of the items. The students in the pilot study completed the questionnaires within twenty minutes.

Research Design for the Study

After the questionnaires were returned, data were entered into the proper form for computation at the University of North Texas Computer Center in order to provide the mean ratings, the lowest and highest rated

factors for the respective institutions, the standard deviation of the ratings, and the lowest and the highest rated factors for each student subpopulation.

Descriptive statistics were used in all items, and group comparisons were made by using appropriate tests. The relationship between the selected demographic variables provided by students and the perceptions of effectiveness of identified activity domains were measured using multiple regression analysis. Subscales (activity domain scores) were computed by summing their individual items, then analyzed by using the appropriate test.

Individual demographic items were summarized with univariate descriptive statistics or frequency distributions, depending on whether the variable was continuous or categorical. In addition to the comparative and descriptive analyses, an investigation was conducted to determine whether perceptions of effectiveness varied between the institutions. Formulation of conclusions and recommendations was consistent with the data. The results of these analyses are presented in Chapter V.

Organization of the Study

The problem and purposes, propositions and definitions of terms, background and significance of the study, basic assumptions and delimitations of the study, target

population, and the instrument, pilot study, and research design for the study are identified in Chapter I.

The remainder of the study is divided into four chapters. Chapter II contains a review of the literature that is relevant to this study. The methodology of data collection and analysis used in this study are described in Chapter III. Detailed data analysis and a discussion of the results are presented in Chapter IV. Chapter V completes the study with a summary of the findings, the implications, the conclusions, and the recommendations.

CHAPTER II

STUDY OF RELATED LITERATURE

Introduction

Review of related literature in the field of organization indicates that theories and methods concerning organizational effectiveness are abundant and diversified. From the eighteenth century to the present, an extensive number of studies have been completed in an attempt to provide a meaningful analysis that meets the ideals in this field of study. Unfortunately, this search continues unabated.

The search of the literature reveals that higher education is entering a rapidly changing and somewhat hostile environment. Young people of today appear to be in a different generation. Educators in higher education can benefit from a greater understanding of how their changing environment affects students' perceptions of organizational effectiveness with respect to their satisfaction. The role of higher education needs to reflect the perceptions of strategic constituencies accordingly.

The definition of organizational effectiveness, provided later in this study, generally falls into one of four approaches. In general, organizational effectiveness

can be defined as an organization or institution that successfully identifies its critical constituencies-- customers, government agencies, financial institutions, students, labor unions and so forth--and then satisfies, at least minimally, their demands (Cameron 1978b, 17; Hage 1980, 136; Miles 1980, 375). It is important to measure effectiveness from the perspective of each of the different constituencies of an organization (Kleemann 1984; Miles 1980; Pfeffer and Salancik 1978). Miles (1980) notes that organizational assessment cannot be judged apart from the strategic constituencies. A strategic constituency is a group of essential individuals who have powerful influence within an organization and are resource providers. Research shows that different constituencies hold different preferences for organizational effectiveness.

Theoretical Issues and Framework

In the last two decades, the topic of organizational effectiveness has been of considerable interest in the administrative and organizational sciences. Since its inception, several hundred articles, chapters, and books have been written on the subject of organizational effectiveness (Cameron 1978a, 1980, 1981a; Cameron and Whetten 1983b; Campbell 1977; Dubin 1976; Ghorpade 1971; Goodman 1979; Gigliotti 1987; Hannan and Freeman 1977; Kleemann and Richardson 1985; Mott 1972; Pennings 1975;

Price 1968, 1972a). Each researcher begins his or her work by indicating the conceptual dilemma and methodological problem surrounding this construct, and almost all indicate that little agreement exists about what organizational effectiveness means or how to adequately measure it. Authors writing on the subject are so disillusioned that they often cause more confusion than enlightenment. Despite this shortcoming, the study of effectiveness remains an important issue.

Effectiveness is an important issue in the study of an organization. Many researchers (Cameron 1978a, 1986a, 1986b) who have attempted to investigate this issue have had little success at reaching an agreed-upon standard for measuring organizational effectiveness. There are, however, four main approaches for looking at the effectiveness of an organization: (a) the organizational goal approach, (b) the system resource approach, (c) the internal process approach, and (d) the strategic constituencies approach.

Organizational Goal Approach to Studying Effectiveness

The organizational goal approach to studying effectiveness is the traditional way to study effectiveness. Its distinguishing characteristic is that it defines effectiveness in terms of the degree of goal accomplishment (Campbell 1977; Etzioni 1964; Price 1972a; Scott 1977). In

otherwords, the greater the degree to which an organization achieves its goals, the greater its effectiveness.

Since this approach defines effectiveness with respect to the degree of goal-achievement, the definition of goal is crucial. Etzioni (1964) defines an organizational goal as a desired state of affairs which the organization attempts to realize. Cyert and March (1963), along with other organizational researchers, define effectiveness along this line. Goal-achievement is typically equated with objectives, purposes, missions, aims, and tasks.

The goal approach to the study of effectiveness is not without criticism, however. Until recently, management theory assumed that organizational goals directed the action of management. This assumption has been questioned (Weick 1976). While goals probably do direct the actions of organizations in most situations, they are sometimes created after the fact to give a rationale for actions that have already taken place. Organizations do not always clearly describe where they are going. Moreover, the existence of multiple objectives and the need to sequence them can give the appearance of inconsistent direction toward a goal, resulting in goal attribution--creating goals after an action is taken and then crediting the action to the goal. In addition, multiple goals bring up such questions as

- (a) Do organizations use official goals or actual goals?
- (b) Whose goals? (c) Short-term or long-term goals? and

(d) How should goals be ranked in importance? (Goodman and Pennings 1977, 5).

It seems likely that these problems can be solved. If organizations are willing to confront the complexities inherent in the organizational goal approach, reasonable, valid information for assessing organizational effectiveness can be obtained. However, when organizations give their sole attention to ends, they are likely to overlook the long-term health of the organization.

Goal adherents have also failed to develop a measure of effectiveness which can be used to study various types of organizations. Currently-available measures are only applicable to limited types of organizations. This notwithstanding, there is more to organizational effectiveness than identifying and measuring specific ends. An alternative, therefore, is the systems approach.

Systems Approach to Studying Effectiveness

The systems approach is used to describe an organization as an entity that acquires inputs, engages in transformation processes, and generates outputs (Yuchtman and Seashore 1967). Based on this approach, an organization should be judged on its ability to acquire inputs, process these inputs, channel the output, and maintain stability and balance. Thus, outputs are the end, whereas acquisition of inputs and processing efficiencies are the means. If an

organization is to succeed over the long-term, it must remain adaptive and healthy. The systems approach to organizational effectiveness focuses on means and ends-- factors which affect survival.

The relevant criteria in the systems approach include market share, stability of earnings, employee absenteeism and turnover rate, growth in research and development expenditure, unit of effectiveness, unit conflict, degree of employee satisfaction, and clarity of internal communication. These factors are important to the long-term health and survival of an organization, but are not necessarily critical to the short-term welfare of the organization.

One of the advantages of this approach is that it discourages management from expecting immediate results at the expense of future successes. With this approach, management is very unlikely to make decisions that trade off the organizations' long-term health and survival for goals that make the organization look good in the short-term. Another advantage of the systems approach is its appropriateness in situations when end goals are vague or when they defy measurement. For instance, managers of public organizations frequently use ability to acquire budget increase as a measure of effectiveness. This means that input criterion is substituted for output criterion.

Three criticisms of the systems approach have been advanced. Seashore and Yuchtman (1967) distinguish between

optimization and maximization. They state that optimization is not measured and few general measures are used. They further argue that because the systems approach uses few general measures, the general rule of mutual exclusiveness regarding the definition of effectiveness is seriously violated.

Although, the systems resource model is widely acceptable in evaluating effectiveness, an organization can be effective even though it does not have access to the most desirable resources. On the other hand, an organization may be ineffective even with optimal resources. In spite of these facts, the proponents of this approach believe it is a better approach for assessing effectiveness than other approaches.

Even from the standpoint of systems approach, it is difficult to avoid using goals, either explicitly or when assessing organizational effectiveness. For this reason, another approach of organizational effectiveness has been suggested.

Process Approach to Studying Effectiveness

The third approach to effectiveness is referred to as the process approach. In the process approach effectiveness is linked to the internal process and operations of an organization. Proponents of this model believe that effective organizations are those whose members

are highly integrated into the system and, thus, internal functioning is smooth and efficient (Argyris 1964; Bennis 1966; Likert 1967). Advocates of this approach believe that organizations with a greater degree of these internal characteristics are more effective and that organizations with a lesser degree of these characteristics are less effective. This approach links effectiveness to the internal organizational process. However, an organization can be effective even when organizational health and internal processes are not functioning properly. On the other hand, organizations can be ineffective even when internal processes or organizational health are at their peak.

All of these examples make it clear that no one approach to the assessment of effectiveness is appropriate in all dimensions or for all organizational types. Organizations may be seen as ineffective even when meeting standards or criteria for each approach, or as effective when the criteria are not met or satisfied.

Strategic Constituencies Approach to Studying Effectiveness

The strategic constituencies approach, also referred to as the ecological approach or the participant-satisfaction approach (Connolly, Conlon, and Deutsch 1980; Keeley 1978; Miles 1980), suggests that an effective organization satisfies, at least to some degree, the demands of

constituencies in its environment from whom it must have support for continued existence. This approach assumes that an organization is faced with frequent and competing demands from a variety of interest groups. Because the interest groups are of unequal importance, effectiveness is determined by the organizations' ability to identify its strategic constituencies and to satisfy the demands placed upon the organization. Furthermore, this approach assumes that organizations pursue interest groups that control the resources necessary for the organization to survive. For instance, public universities often measure effectiveness in terms of acquiring students rather than concern with potential employers for graduates of their institutions because the universities' survival does not depend upon their graduates obtaining jobs. However, administrators in public universities devote considerable effort in order to influence state legislators. The inability to win legislators' support has adverse effects on the budget of public universities. In contrast, a private university's effectiveness is rarely affected by whether or not it has a favorable relationship with legislators in the state capital. Administrators in private universities frequently direct energy, instead, to lobbying for federally subsidized student loans and to cultivating gift giving from alumni. The strategic constituencies approach is also applicable to business organizations. Organizations may ignore strategic

constituencies; however, in seeking effectiveness they may accomplish success in spite of contradictory constituency expectations.

The strategic constituencies approach seems logical, but may not be easy to operationalize. The task of separating strategic constituencies from a larger environment is often not as easily accomplished as the example suggests. Because the environment is changing rapidly, what was critical to an organization yesterday may not necessarily be so today or tomorrow.

In spite of its difficulties, the strategic constituencies approach can result in dividends. By operationalizing the strategic constituencies approach, organizations can decrease the possibility that the organization might ignore or upset groups whose power could significantly hinder operations.

Each of the four approaches has advantages as a research and theoretical tool, but each has disadvantages as well. Each model is analytically independent; therefore, one approach may be appropriate in one set of circumstances and another might better serve under different circumstances. The environment in which an organization operates must be considered before deciding which approach to use. Multiple environments or obscure constituencies must often be considered. The strategic constituencies

model may work best in a case where the goal model is inadequate.

Environment refers to a physical area such as a building, location, services rendered, and resources available; population served refers to the number of people who expect work to be produced by an organization based on the technology available to the organization. The environment is the result of decisions which are generally made by a coalition of members or may be mandated externally. Achieving effectiveness in all areas at once is often impossible. Tasks which are not well-defined are ever-present and are harder to evaluate than tasks which are specifically designed.

A variety of concerns reviewed for this study concerned organizational effectiveness. For the past several years, efforts to develop better criteria for measuring organizational effectiveness have not been entirely successful often because a wide variety of conceptualizations were used. Each model is focused on different dimensions and activities in measuring organizational effectiveness. Thus, no one criterion has satisfactorily addressed all aspects of an organization's effectiveness. Criteria at one particular organizational level may not be the same as those at another organizational level (Cameron 1978a; Goodman and Pennings 1977; Price 1972a; Weick 1977), and relationships among various

dimensions of effectiveness may be difficult to locate (Kirchhoff 1975; Mahoney and Weitzel 1969; Seashore, Indik, and Georgopolous 1960). Considerable confusion exists, leading some researchers to suggest the abandonment of the construct entirely (Cameron and Whetten 1983a; Goodman 1979; Gigliotti 1987; Hannan and Freeman 1977). Because the organizational effectiveness construct is an integral part of all studies of organizational effectiveness, however, the continuation of research in this area is essential. Cameron (1984), Campbell (1977), Cope (1981), Goodman and Pennings (1977), Kleemann (1984), and Kleemann and Richardson (1985) are among those who have echoed the call by Karl Weick (1976) for more research on institutions of higher learning using a microscope rather than a telescope. A careful comparison and integration of multiple models of effectiveness, advocated by Cameron (1986b), would be more productive than one attempting to develop a single, general model (Connolly, Conlon, and Deutsch, 1980; Gigliotti 1987; Price 1972a).

Although several authors have contributed to the general understanding of effectiveness at the organizational and institutional level, more research is needed to increase understanding of college upper-classmen's perceptions of the effectiveness of state universities. In spite of the problems, the failure to develop better criteria and the lack of attention given to student perceptions, the concept

of organizational effectiveness remains a major concern to practitioners and researchers alike because it is a major dependent variable in organizational research. The term effectiveness can be substituted with performance, success, productivity, or accountability, but each is a measure of desired effectiveness (Gigliotti 1987).

In a practical sense, organizational effectiveness is especially important because many constituencies of an organization, internal and external alike, must constantly make decisions regarding the success of the organization. For instance, decisions as to whether to choose one school or another, whether to award a contract to one firm or another, or whether to attend one college or another require some evaluative judgement of effectiveness. As researchers strive to find better criteria to measure effectiveness systematically and consistently, the public makes use of an easier approach, selecting whatever visible criteria are available for judgement. Even though the public's choice of criteria is not necessarily related to the performance of organizations, the importance of the concept is important in terms of analysis (Cameron 1978a, 1980, 1981a, Cameron and Whetten 1983a; Ghorpade 1971; Gigliotti 1987; Goodman and Pennings 1977; Kleemann and Richardson 1985; Mott 1972; Spray 1976; Steers 1977; Zammuto 1982).

The majority of problems encountered by researchers as they have struggled to develop better models of

effectiveness have been due to a variety of conceptualizations attached to organizations. That is, organizations have been labelled as organisms, psychic prisons (Morgan 1986), coalitions of strong constituencies (Pfeffer and Salancik 1978), social contracts (Keeley 1978), individual need-meeting cooperatives (Cummings 1977), machines (Taylor 1967), open systems (Thompson 1967), rational entities in search of goals (Perrow 1970), information processing units (Galbraith 1975), and garbage cans (March and Olsen 1977), to name but a few. The changes in conceptualization of what an organization is over a period of time affects the definition of, and approaches taken toward, the effectiveness of the organization. As a result of these various conceptualizations, researchers have elected to pinpoint different organizational phenomena, mentioning different relationships among variables, and thus resulting in different decisions of effectiveness (Cameron 1978a). In his study of twenty-one empirical investigations of organizational effectiveness, Cameron found that 80 percent of the criteria chosen for study did not overlap. However, some researchers continue to advocate one model of effectiveness (Bleudorn 1980; Connolly, Conlon, and Deutsch 1980; Price 1972b).

Cameron (1984), Daft and Wigenton (1979), Morgan (1980), and Weick (1977) are among those who have advocated multiple models of effectiveness as a means of facilitating

the understanding of complex organizations. Cameron believes that a systematic comparison and integration of the multiple model of effectiveness ends the confusion that presently exists in the literature on organizational effectiveness. Any effort to use general models of effectiveness across organizational settings ignores the inherent differences that exist among organizations. An example is a profit versus nonprofit setting. Nonprofit organizations and educational institutions have unique characteristics that do not easily facilitate the assessment of effectiveness. There is no distinct method by which to determine success or failure in their environments. At times nonprofit organizations and institutions operate under undefined goals without certainty as to what their mission is or should be. There is no defined goal by which they can assess their productivity; yet, they need to judge their effectiveness.

Results of Effectiveness Studies

Previous studies on organizational effectiveness have also focused on univariate models including interest (Steers 1977). While these models or approaches continue to be popular, many researchers have questioned their validity for use in studying organizational effectiveness in institutions of higher learning. It is often difficult to determine which variables sufficiently measure organizational

effectiveness. Researchers sometimes project their personal biases onto the effectiveness of a variable and, thus, contaminate the research. Argyris (1962), Bennis (1966), Likert (1967), McGregor (1960), Mintzberg (1989), Peters and Waterman (1982) and other researchers have advocated qualities that effective organizations should possess. They approach the problem of effectiveness deductively by stating that an organization should achieve these standards to be effective. Other researchers have used a descriptive approach in which organizational characteristics or criteria are described and prior evaluative standards are disregarded (Cameron 1978a, 1981a; Mahoney and Weitzel 1969; Mahoney and Frost 1974; Price 1972a; Steers 1977; Webb 1974). Thompson (1967) indicates that the difference may be typified as goals for the organization and of the organization.

Within institutions of higher learning, goal achievement is a way of fulfilling the institutional mission. In previous studies researchers have investigated institutional mission fulfillment without dealing specifically with the construct of effectiveness (Kleemann and Richardson 1985, 5-6). The problem associated with goal models in university settings makes it hard to link goals with actions that have practical value from an administrative point of view. Goals are most often defined in academic research as intermediate in a hierarchy between a broader mission and more specific objectives. In light of

this, mission represents a rationale negotiated by institutions with their strategic constituencies. Objectives are measurable and are used to define those goal-related functions that receive institutional attention at a particular point in time (Kleemann and Richardson 1985). The problem in trying to mediate between effectiveness goals and efficiency of objectives results in a "dialectical and political process which deals with the realities of managing limited resources but does not provide the criteria necessary to assess effectiveness from the perspective of any particular constituency" (Kleemann and Richardson 1985).

The activity-driven definition of mission, by Kleemann and Richardson, as specific activities engaged in by an institution, helps to bridge the space between objectives and goals because "activities can be stated so that they have the intentionality of goals while retaining the measurable characteristics of objectives" (Kleemann and Richardson 1985, 6). As defined by Kleemann and Richardson, organizational effectiveness is "the perception by a strategic constituency of the successful implementation of an activity considered to be important to the mission of a university." Effectiveness is "operationally defined as the congruence between the importance of an activity and its perceived level of achievement" (Kleemann and Richardson

1985, 6). The activity driven concept is reflected in the instrument used in this study.

Relationship of Student Satisfaction and Effectiveness

Young people of the 1990s live in a complex and technologically advanced environment. Thus, it is important for administrators and researchers to determine how this fact affects students' perceptions of organizational effectiveness. Evidence of the competition among institutions to attract the declining number of eighteen-year-olds includes the many books, videos, articles, and special tours that are designed to influence high school students' choice of universities. The competition for students includes both the academic programs offered and the services made available to students. The perceptions students have about which activity areas are considered important and how well the institutions perform in these areas, therefore, are important to administrators and others seeking to meet student needs.

Approximately 2.6 million students graduated from high school in 1990, down from 2.8 million two years earlier, and 3.1 million in 1979 (Cornish 1990). The total is expected to continue dropping until 1994, when students of the new "baby boomlet" start earning diplomas. As a result, schools are scrambling to present themselves as attractive. With the pool of high school graduates dwindling, college

recruiters are travelling thousands of miles to convince students that their campuses are good places to spend four years.

Sharp and Kirk (1974) found that first-year students at the University of California at Berkeley sought counseling more than any other group of students. Baker and Nidorf (1964) also found that students' first months in school produced their greatest needs for counseling.

Students often approach their college years with unrealistic expectations. The sooner students understand and accept more realistic expectations, the sooner their college careers will become a positive experience. Failure to reach a more realistic assessment often results in dropouts, transfers, and unnecessary academic failure (Hecklinger 1972).

An important aid for research in this area is the availability of accurate assessment techniques. Previous studies (Hallenbeck 1978; Hecklinger 1972; Roelf 1975; Sturtz 1971) have revealed differences in satisfaction among students based on demographic factors such as classification, residence, age, and decision regarding a major.

The obvious link between leaving school and dissatisfaction was first researched in the last five decades. Iffert (1957) conducted the first important study in this area in 1947. His initial work led to much-needed

research, including studies by Astin (1975, 1964), Barger and Hall (1964), Cope and Hannah (1975), Farwell, Warren, and McConnell (1962), Hackman and Dysinger (1970), Savicki, Schumer, and Stanfield (1970), to name but a few. Pantages and Creedon (1978, 82) suggest that a needs model is the best tool for determining why students drop out.

Summary

Although the purpose of institutions of higher education is to prepare students to function successfully in their chosen careers in the world, this objective is not reached by all students. Students who are not being adequately prepared by their universities to lead fulfilling, productive lives often display this inadequacy by dropping out, transferring from one institution to another, or by changing majors. These students represent the failure of the educational process to provide the knowledge and skills needed by students in order to successfully take their place in the world.

Assuming that predictions of decreasing numbers of potential students are correct, it is essential that assessment instruments be developed to provide a better understanding of the reasons for students' dissatisfaction with their university experiences. Research methods and procedures for the collection and analysis of data are presented in Chapter III.

CHAPTER III

DATA COLLECTION AND ANALYSIS

Introduction

A description of the methods and procedures used for the collection and analyses of data are presented in this chapter. The purpose of this study was to investigate the importance of activity areas as perceived by students and their perceptions of the effectiveness of the performance of their university in those areas. Included in this chapter are descriptions of the target population, the method used, mapping of the criteria of effectiveness, selection of the sample, an explanation of the instrument as it relates to this research, procedures used, and the procedures for the analysis of data.

Method

Descriptive survey research was selected as the appropriate method. This method was used to determine, evaluate, and analyze the of business students perceptions of the importance of selected activity areas and their perceptions of the performance of their university in these activity areas.

Mapping of the Criteria of Effectiveness

In order to carry out the purpose of this study it was necessary to develop a definition of effectiveness grounded in the literature. Effectiveness is determined as an organization's ability to identify its strategic constituencies and to satisfy the demands they place upon the organization (Kleemann and Richardson 1985; Miles 1980). This definition has been operationalized as the congruence between students' perceptions of the importance of an activity and its perceived level of achievement (Kleemann 1984; Kleemann and Richardson 1985). The definition and a means for measuring this type of effectiveness are graphically displayed in Figure 1.

As stated by Kleemann and Richardson (1985, 7), "activities where importance and perceived levels of achievement are identical will lie on the diagonal line. Distance from the line is a measure of discrepancy between importance and achievement and . . . will be labelled effectiveness discrepancy measure." A higher level of effectiveness discrepancy measure indicates greater discrepancy between how well an activity is being performed and its perceived importance. An effectiveness discrepancy measure is computed by using Kleemann's procedure for measuring the distance of a point from a line by the following formula. The formula expresses all the

discrepancies as a positive number which, therefore, can be mathematically manipulated in meaningful ways.

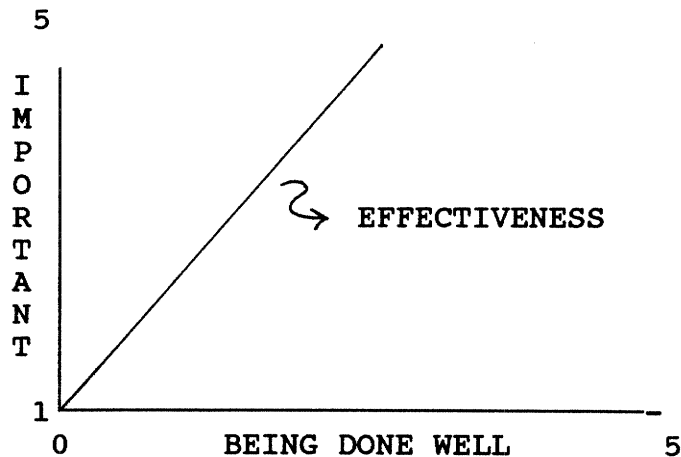


Fig. 1. A graphic representation of the effectiveness discrepancy measure. (Source: Gary L. Kleemann and Richard C. Richardson, Jr. 1985. "Student Characteristics and Perceptions of University Effectiveness" Review of Higher Education 9(1): 7).

$$EDM = \sqrt{\frac{(\text{Important} - \text{Done Well})^2}{2}}$$

The Instrument Used for This Study

A copy of the questionnaire used for this study is included in Appendix G, along with letters and other documentation relative to the use of the instrument. The questionnaire was developed by Richardson and others (1984) for a statewide survey of Arizona universities (Kleemann 1984). The instrument was used to assess how important students perceived selected activities to be and students' perceptions of the effectiveness of the university in the

performance of the activities. A few modifications were made to the original questionnaire to make the instrument more suitable for the Texas environment. The original approach of the instrument was maintained. The modified instrument was reviewed for content validity by a panel of administrators and researchers. Items that did not apply were removed. Some items were reworded to make them more appropriate for the target group in this study. Of the eighty-two questions on the original questionnaire 2 were dropped and 18 were reworded (items 18, 24, 29, 37, 47, 54, 62, 67, and 69-82). The modified instrument was pilot tested on a small group of students before using it in the study. Permission was obtained from the Human Rights Committee at UNT to use the questionnaire in business classes. Confidentiality was promised to each student.

Population

Students enrolled in business at UNT and TWU were the population for this study.

Sampling

Business students at UNT and TWU are required to take certain courses, therefore these students will be a representative of the total population. A visit was made to classes which all business students are required to take, requesting that students participate in the study (see Appendix G). A 96.8 percent response rate of surveyed

students resulted in a total sample size of 639. The useable return rate of 96.8 percent more than met the minimum 60 percent required. Because the required courses are junior/senior level, relatively more junior and seniors were in the classes than other classifications.

The instrument was administered during the fall semester 1990, to a sample of 660 business students at TWU and UNT following standard survey procedures. At UNT, 533 of the 550 students, enrolled in a representative sample of ten classes, completed questionnaires for a response rate of 96.9 percent. At TWU, five classes were surveyed. One hundred six, or 96.4 percent, of the 110 students provided usable responses.

Statistical Procedures

The completed questionnaires were scored and treated statistically using computers at UNT. The Statistical Package for Social Sciences (SPSS-X) was used. The .05 level of statistical significance was used. Data from the opinion survey were compiled, tabulated, and reported. The choices selected by respondents for each survey question are provided in tabular form.

A t-test for independent samples was used to determine whether or not significant differences existed among perceptions held by the two groups--UNT and TWU students. Stepwise multiple regression was used to determine whether

selected demographic variables were related to differences in students' perceptions of the effectiveness of their universities. The one-way analysis of variance (ANOVA) was used to test the significance of mean differences for the importance question and the done well question based on sixty-six items with regard to each demographic variable. When a significant mean difference existed, the least significant difference method for multiple comparison was used to show which levels of the independent variables were significantly different. The least significant difference method was used because it permits comparison among unequal numbers and is more liberal than other multiple methods (Ferguson 1981). Multiple linear regression was used to address the question, Do selected demographic variables relate to differences in students' perceptions of effectiveness? Because multiple regression techniques are considered to be the most appropriate statistical procedure when analyzing the relationship between a single dependent variable and several independent variables, they were employed in this analysis. The choice of technique was based on its general analytic ability to handle all types of variables including cases of missing data and unequal N 's (Kerlinger 1986). When a missing point was encountered, the mean for the particular variable was substituted. The dependent variable Y was the students' perceptions of the effectiveness of domains of activity for their university as

indicated by the effectiveness discrepancy measure. The set of explanatory variables included age, residence on or off campus, ethnicity, whether receiving financial aid, grade point average, political description, and classification.

Several researchers advocate the relevance of this type of procedure, especially where many of these variables are involved. Borg and Gail (1971, 438) indicate that multiple regression is chosen by researchers who wish to identify variables that can forecast vocational as well as academic success. Prediction studies provide researchers with the following three types of information: (a) "the extent to which a criterion behavior pattern can be predicted," (b) "data for theory-building about possible determinants of the criterion behavior pattern," and (c) "evidence regarding the predictive validity of the test that is related with criterion" (Adetoro 1983, 100).

Regression analysis permits prediction with a special degree of precision (Roscoe 1975, 21). The techniques of multiple regression make it possible for behavioral scientists to apply the knowledge of two or more independent variables in order to predict scores on an individual dependent variable more successfully than would be possible using the knowledge from a single independent variable (Roscoe 1975, 362).

Cunningham (1982, 30) explains that "multiple regression is generally used when there is an attempt to

predict outcome with lineal independent variables."

Multiple regression is used to determine which independent variables are most closely related to a dependent variable when the effect of other independent variables is held constant. This eliminates contamination of the independent variables by interrelationships.

Multiple regression analysis is, perhaps, one of the most frequently used multivariate procedures among educational researchers. Stepwise regression analysis is most often chosen for determining each predictor variable's independent strength. These observations regarding the technique of multiple regression support its use for this study.

Table 2 contains a list of the variables used in the study, the codes used in computer analysis, and meanings of the codes used.

The regression model used for this study was

$$Y = A + B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4 + B_5X_5 + B_6X_6 + B_7X_7 + B_8X_8 + e_i$$

where:

- Y = dependent variable, effectiveness discrepancy measure for activity domain;
- X₁ = independent variable, effect of age;
- X₂ = independent variable, effect of gender;
- X₃ = independent variable, effect of ethnicity;
- X₄ = independent variable, effect of receiving financial aid;
- X₅ = independent variable, effect of grade point average;
- X₆ = independent variable, effect of political description;
- X₇ = independent variable, effect of residence on or off campus;
- X₈ = independent variable, effect of classification;
- A = intercept;

Table 2.--Study Variables, Measurement Modes, and Codings

Variable	Code	Meaning	Measure Mode	Student Coding
1	301	Sex	Nominal	1 = Male 0 = Female
2	201	Age below 26	Nominal	1 = Below 26 years 0 = Other
3	202	Age above 25	Nominal	1 = Above 25 years 0 = Other
4	307	Live on campus	Nominal	1 = On campus 0 = Other
5	312	Ethnicity 1	Nominal	1 = Black 0 = Other
6	313	Ethnicity 2	Nominal	1 = Hispanic 0 = Other
7	314	Ethnicity 3	Nominal	1 = Native American 0 = Other
8	315	Ethnicity 4	Nominal	1 = Asian 0 = Other
9	316	Ethnicity 5	Nominal	1 = White 0 = Other
10	306	Financial aid	Nominal	1 = Financial aid 0 = Other
11	308	Conservative	Nominal	1 = Conservative 0 = Other
12	309	Somewhat conservative	Nominal	1 = Somewhat conserv. 0 = Other
13	310	Middle-of-Road	Nominal	1 = Middle-of-road 0 = Other
14	311	Somewhat liberal	Nominal	1 = Somewhat liberal 0 = Other
15	317	GPA 3.5-4.0	Nominal	1 = GPA above 3.5 0 = Other

Table 2.--Continued

Vari- able	Code	Meaning	Measure Mode	Student Coding
16	318	GPA 3.0-3.49	Nominal	1 = GPA 3.0-3.49 0 = Other
17	319	GPA 2.5-2.99	Nominal	1 = GPA 2.5-2.99 0 = Other
18	320	GPA 2.0-2.49	Nominal	1 = GPA 2.0-2.49 0 = Other
19	302	Freshman	Nominal	1 = Freshman 0 = Other
20	303	Sophomore	Nominal	1 = Sophomore 0 = Other
21	304	Junior	Nominal	1 = Junior 0 = Other
22	305	Senior	Nominal	1 = Senior student 0 = Other

$B_1 - B_8$ = regression coefficients; and
 e_i = residual, error of prediction (Kleemann 1984, 68).
 X_i may represent one or more dummy variables (see Table 2).

Respondents were asked to rate their perceptions of only the university they were attending. An analysis for each of the two universities and for the two universities combined were made.

In addition, demographic data were analyzed for frequency and distribution. Gender, marital status, classification, residence, ethnic background, state residency, current financial aid, current credit hours, current courses, grade point average, age, major political

description, residence with parents, and part-time or-full time employment were tabulated, recorded, and reported in percentages and raw numbers.

The methodology and conceptual framework of this study, like those of Kleemann's study, are different from earlier studies by Cameron (1978a), Campbell and others (1974), Ghorpade (1971), Goodman and Pennings (1977), Gross and Grambsch (1974), Miles (1980), Peterson and Uhl (1975), Pfeffer and Salancik (1978), Price (1968), Seashore and Yuchtman (1967), Steers (1977), and Zammuto (1982).

Summary

The procedures used for data collection and analysis, and the method used in applying a research model for assessing students' perceptions of the effectiveness of the two state universities surveyed are described in this chapter. Data were treated statistically using percentages, t-tests, one-way analysis of variance, and multiple regression analysis. Selected demographic items were also analyzed. The details of the analyses and reporting of the data are presented in Chapter IV.

CHAPTER IV

DATA ANALYSIS AND DISCUSSION OF RESULTS

Introduction

The purpose of this chapter is to present findings resulting from an analysis of perceptions of effectiveness of activity domains held by students enrolled in business courses at Texas Woman's University (TWU) and at the University of North Texas (UNT). A questionnaire by Kleemann (1984; Kleemann and Richardson 1985) was modified and validated for use in this study. The revised questionnaire was administered to students enrolled in business courses at UNT and TWU. One hundred and ten students from TWU and 550 students from UNT were asked to complete the questionnaire. One hundred and six TWU students, 96.4 percent, and 533 UNT students, 96.9 percent, returned usable questionnaires.

Data were analyzed in an effort to address the propositions in Chapter I. Propositions one and two were analyzed using χ^2 -tests for independence with a .05 statistical level of significance. Proposition three was analyzed according to the effectiveness discrepancy measure. Proposition four was analyzed using stepwise multiple regression with a .05 level of statistical significance.

Further analysis was also completed on data from the two groups. Details of these analyses are provided later in the chapter. The data presented in this chapter are consistent with analyses by Kleemann (1984), Kleemann and Richardson (1985), Smith (1990), Stephensen (1990), Martin and Dixon (1991), Jones and Pinkney (1991), and Stickel and Bonett (1991).

Explanation of Activity Domains

The development of a description for each activity domain was the first step necessary in formulating an assessment. Fifty-four statements describing specific university activities were distributed in ten activity domains. Commonalities among the activity statements in each activity domain were interpreted and a succinct description was determined.

Based on the model of Kleemann (1984; Kleemann and Richardson 1985) and Doucette (1983), each set of activity statements that made up a domain was then arranged in order of decreasing contribution to the definition of the category based on loading factor scores. Groups of statements were then examined for common activities, clientele, or rationale, in that order. Obvious literal commonality of statements was expressed in a brief phrase. When commonality was more apparent in some of the activities and less in others, the activities with the highest factor

loadings were given greater weight in the determination of the description.

The sixteen activity statements in the first domain described a variety of programs and services that are provided for university students. The seven activity statements in the second domain included recruiting, conducting research, admitting, tutoring, and providing information. Because all of these activities concerned the provision of services to minority and female students in order to provide them access to university resources and to success, this domain was defined as emphasizing minorities and women. The six activity statements in the third domain relate to research and teaching. Because quality was an implied value in each of these activities, this domain was described as quality of research and teaching. Of the seven activity statements in domain four, four concerned research and the dissemination of research results and three concerned the general dissemination of knowledge. Therefore, domain four was described as research knowledge dissemination. The six activity statements that made up domain five involved offering workshops, counseling, and courses to help expand skills and meet nonacademic learning needs. Because these activities provide students support and access to university, this domain was described as offering workshops and counseling to broaden access. The three activity statements in domain six concerned athletics;

therefore, this domain was described as athletics. The two activity statements in domain seven concerned the sponsoring of cultural activities. Domain eight included three items that concerned the offering of graduate programs. The two items in domain nine concerned the leasing of university facilities, and the two activities in domain ten concerned the increasing of standards.

Analysis of Data

"Priorities for Arizona Universities: A Statewide Survey," a questionnaire by Kleemann (1984; Kleemann and Richardson 1985) was modified specifically for use in this study. A test of reliability was computed for the importance and done well questions. The resulting Crombach Alpha coefficient for importance was .9028, while the Crombach Alpha coefficient for done well was .9509. The overall Crombach Alpha coefficient was .9409. These results indicate, in each instance, a high internal consistency for this survey instrument. This finding is very important because it lends strong support to the reliability coefficient established earlier by Kleemann (1984).

Effectiveness exists when there is no difference between students' perceptions of the importance of an activity and the level to which it is being carried out by the university. This was operationalized for this study as an effectiveness discrepancy measure. The overall

effectiveness discrepancy measure was computed in order to calculate the effectiveness discrepancy measure for each respondent and then to calculate the means for individual effectiveness discrepancy measures. The result gives a summary representation of respondents' views. The effectiveness profiles for the ten domains of the two universities are displayed in Figure 2 in Appendix C. The central purpose of this analysis was to determine if different profiles would develop for the two universities. The data presented in Figure 2 (Appendix C) show that two different profiles did emerge. Data also indicate that various institutions differ in the domains in which they excel. Magnitude of the effectiveness discrepancy measure's were similar across the 10 domains (programs and services for student, emphasizing minorities and women, quality of research and teaching, research and knowledge dissemination, offering workshops and counseling to broaden access, athletics, sponsoring cultural activities, offering graduate programs, leasing facilities, and increasing standards) for the two universities with one exception. TWU was considerably higher on domain 5 (offering workshops and counseling to broaden access). TWU also had higher effectiveness discrepancy measure's on 7 domains (programs and services for students, emphasizing minorities and women, quality of research and teaching, research and knowledge dissemination, offering workshops and counseling to broaden

access, sponsoring cultural activities, and offering graduate programs) than UNT. UNT had higher effectiveness discrepancy measures on 3 domains (athletics, leasing facilities, and increasing standards) than TWU. Although students seemed to perceive the domains similarly at the two universities--domains were rated either high or low by each of the two groups--differences were noted between the two institutions.

The data presented in this chapter reflect returns from 639 of the 660 subjects contacted, for a 96.8 percent return. The numbers and percentages of usable questionnaires based on the demographic characteristics are shown in Table 3. The age range of the group indicates that the majority of respondents were less than 26 years of age (87.3 percent). There were more female students than male students in the total population--UNT and TWU combined. Of the 639 respondents who completed the survey, 361 were female (56.8 percent) and 275 were male (43.2 percent). Of the 639 UNT and TWU respondents, 580 lived off campus (87.6 percent) while only 79 resided on campus (12.4 percent).

The demographic data presented in Table 3 show the numbers and percentages of respondents at UNT by gender, marital status, classification, residence, ethnic background, state residency, current financial aid, and so forth. Of the 533 UNT respondents, 255 were females (48.1 percent) and 275 were male (51.9 percent). At UNT, 479 were

Table 3.--Demographic Information for Students from Each University

Demographic Variables	TWU		UNT		Total	
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>
Gender						
Female	106	100.0	255	48.1	361	56.8
Male	0	0.0	275	51.9	275	43.2
Marital Status						
Never married	62	58.5	466	88.1	528	83.1
Previously married	9	8.1	14	2.6	23	3.6
Married	35	33.0	49	9.3	84	13.2
Classification						
Freshman	2	1.9	4	0.8	6	0.9
Sophomore	12	11.3	52	9.8	64	10.1
Junior	53	50.0	284	53.6	337	53.0
Senior	34	32.1	186	35.1	220	34.6
Graduate	5	4.7	4	0.8	9	1.4
Residence						
On campus	25	23.6	54	10.1	79	12.4
Off campus	81	76.4	479	89.9	580	87.6
Ethnic Background						
Black	12	11.3	46	8.7	58	9.1
Hispanic	14	13.2	31	5.9	45	7.1
American Indian	1	0.9	3	0.6	4	0.6
Asian/Oriental	4	3.8	27	5.1	31	4.9
White, not Hispanic	75	70.7	421	79.7	496	78.2
State Residency						
In-state	99	93.4	295	93.8	594	93.7
Out-of-state	7	6.6	33	6.2	40	6.3
Current Credit Hours						
1-3 hours	3	2.8	4	0.8	7	1.1
4-6 hours	15	14.2	9	1.7	24	3.8
7-9 hours	11	10.4	34	6.4	45	7.1
10-12 hours	19	17.9	164	31.0	183	28.8
13 or more	58	54.7	318	60.1	376	59.2

Table 3.--Continued

Demographic Variables	TWU		UNT		Total	
	<u>N</u>	%	<u>N</u>	%	<u>N</u>	%
Current Courses						
One course	3	2.8	4	0.8	7	1.1
Two courses	15	14.2	13	2.5	28	4.4
Three courses	8	7.5	35	6.6	43	6.8
Four courses	23	21.7	192	36.4	215	33.9
Five or more	57	53.8	284	53.8	341	53.8
Grade Point Average						
3.5-4.0000	28	26.4	73	13.8	101	15.9
3.0-3.4900	31	29.2	119	22.5	150	23.6
2.5-2.9900	35	33.0	210	39.7	245	38.6
2.0-2.4900	9	8.5	120	22.7	129	20.3
Below 2.00	3	2.8	7	1.3	0	0.0
Age						
25 or less	69	65.1	489	91.7	558	87.3
26 or older	37	34.9	44	8.3	81	12.7
Major						
Business	61	57.5	401	75.0	462	72.3
Non-business	45	42.5	132	25.0	177	27.7
Political Description						
Conservative	13	12.3	98	18.7	111	17.6
Somewhat conservative	23	21.7	111	21.1	134	21.2
Middle-of-road	44	41.5	199	37.9	243	38.5
Somewhat liberal	19	17.9	85	16.2	104	16.5
Liberal	7	6.6	32	6.1	39	6.2
Reside with Parents						
Yes	18	17.0	100	18.9	118	18.6
No	88	83.0	429	81.1	517	81.4
Employed Part- or Full-time						
Yes	72	67.9	383	72.5	455	71.8
No	34	32.1	145	27.5	179	28.2

living off campus (89.9 percent) while only 54 were living on campus (10.1 percent). The majority of respondents in the UNT group were less than 26 years of age (91.7 percent). The majority of students were of Anglo descent, and the smallest minority of students were of Native American descent. The fact that 48.1 percent of the population was female tends to support the belief that business remains a male-dominated profession. It does show, however, that females are beginning to enter the profession.

The findings relating to cultural background and ethnicity indicate that there were more Black students in the group than either Hispanic or Asian students. It was expected that Hispanics and those of African descent would outnumber Asians in Texas. While it was expected that the majority of the population would be of Anglo descent, the finding that 79.7 percent of the respondents were Anglo indicates a somewhat homogenous population.

The numbers and percentages of students responding to the survey from TWU according to the demographic variables are presented in Table 3. Of the 110 TWU students surveyed, 106 (96.4 percent) provided completed data on demographics. Of this number, 106 were female (100 percent). At TWU, 81 respondents were living off campus (76.4 percent), and 99 were Texas residents paying in-state tuition fees (93.4 percent). Findings relating to ethnic background reveal that there were more Hispanic students in the TWU group than

either Black, American Indian, or Asian students. It was expected that Hispanics and those of African descent would outnumber Asians in Texas while it was expected that a majority of the population would be of Anglo descent. The finding that 70.7 percent of the respondents were Anglo indicates a somewhat homogeneous population.

The respondents in this study seemed to believe that the study was important and to give adequate thought to the answers they provided. Approximately 30 percent of the respondents added comments on the open-ended question provided. Several students provided detailed descriptions of their experiences and expressed gratitude for the study. Students' expressed interest in the results of the study indicates their degree of cooperation and concern.

Students' satisfaction with the key services of a college and university can be an important determinant of whether they choose to continue at that school, to drop out, or to transfer to another college or university. For this reason, respondents were asked to describe their experiences with several university services. Most of the students from both TWU and UNT indicated that they had sought the use of library services. About two-fifths of the students at both universities who sought the use of other services examined in this study were dissatisfied. There were no meaningful differences in the students' responses to these items on the basis of classification, gender, ethnicity, or academic

division. Neither the TWU nor UNT group was particularly pleased with the career counseling received. This finding supports the written comments by a number of respondents who transferred for similar reasons.

Only about one-third of the students (24.8 percent at UNT and 42.5 percent at TWU), however, sought career guidance. Of those students who indicated that they did not seek help with counseling or improvement of basic skills and academic advising, a larger percentage realized, in retrospect, that they would have benefitted from such assistance. Most of the respondents who sought help in getting financial aid or part-time jobs, and a substantial portion of those who received medical care at the two institutions, expressed satisfaction with these services. For details see Tables 4. Frequencies of responses of students for all sixty-six items from TWU, from UNT, and from the two universities combined regarding the services used are included in Appendix D. The percentages of responses for both groups to each item regarding the services used are provided in Table 4. It is notable that only 87.8 percent and 85.9 percent of students from the two institutions reported that they had used library services. Use of the campus newspaper was rated second by students at TWU, UNT, and both schools combined. The third most-used service was health services. Counseling service was ranked

fourth by UNT students, while TWU students ranked financial aid as the fourth most-used service.

Description of Students in the Sample

The frequency and percentage for each response category for the demographic items, found in Table 3, are listed for each institution and for both combined. As would be expected, the most obvious difference between students from the two institutions was gender. At TWU 100 percent were women while at UNT 48.1 percent were women and 51.9 percent were men.

Another relative difference was that more TWU students were married or previously married (41.1 percent for TWU compared to 11.9 percent at UNT). This is not surprising when considered with the fact that TWU students tended to be older than UNT students (34.9 percent of the TWU students were twenty-six or over compared to 8.3 percent for UNT). These two factors may also be related to the fact that TWU students were more likely to be attending part-time (17.0 percent of the TWU students were enrolled for six semester hours or less compared to 2.5 percent at UNT). The maturity factor, as reflected by older students, may also be related to the higher self-reported grade point average for TWU students when compared to UNT students.

The percentage of Texas residents was almost the same for both institutions (93.4 percent for TWU and 93.8 percent

for UNT). TWU students were more likely to live on campus (23.6 percent for TWU and 10.1 percent for UNT), while the percentage residing with parents was approximately the same (17.0 percent for TWU and 18.9 percent for UNT). Over two-thirds of the students from both institutions were employed at least part-time (67.9 percent for TWU and 72.5 percent for UNT). Relatively more students from TWU received financial aid (29.2 percent for TWU and 21.6 percent for UNT). Relatively more students at TWU were either Black or Hispanic (24.5 percent for TWU and 14.6 percent for UNT). Classification levels were very similar for students from both institutions. More non-business majors were included in the sample at TWU (42.5 percent for TWU compared to 25.0 percent for UNT). As a group, the students from UNT indicated they considered themselves just slightly more politically conservative than did the students from TWU.

Students were also asked to indicate which of several selected services they had used. The responses are provided in Table 4.

As shown in Table 4, 29.4 percent of the TWU students and 44.5 percent of the UNT students reported the use of counseling services. Relatively more TWU students than UNT students used career planning and placement services (42.5 percent for TWU, 24.8 percent for UNT). More TWU students than UNT students used financial aid (43.4 percent for TWU and 33.8 percent for UNT). However, the number of students

Table 4.--Student Use of Services by Percentages

Service Used	UNT (%)	TWU (%)	COMB (%)
Counseling services	44.47	29.40	41.63
Career planning and placement	24.77	42.54	27.10
Financial aids	33.77	43.42	35.37
Health services	48.78	44.31	48.04
Intramurals	23.45	4.70	20.34
Library	87.80	85.85	87.48
Student government	5.81	9.40	6.41
Campus newspaper	73.92	56.61	71.04
Courses or workshops in areas such as study skills or academic survival skills	13.50	12.30	13.30
Academic advancement	11.81	10.37	11.58

from TWU and UNT was approximately the same for use of courses or academic workshops in areas such as study skills and academic skills (12.3 percent for TWU, 13.5 percent for UNT). Relatively more students from TWU used student government services (9.4 percent for TWU, 5.8 percent for UNT).

The percentage of students who reported using library services was approximately the same for students at TWU (85.8 percent) and UNT (87.8 percent). More than one-third of the students at both universities reported the use of

health services (44.3 percent for TWU, 48.8 percent for UNT). TWU students participated in intramurals less often than UNT students (4.7 percent for TWU, 23.5 percent for UNT). The percentage of students using academic advancement services at TWU and UNT were approximately the same (10.4 percent for TWU, 11.8 percent for UNT). The campus newspaper was used by 73.9 percent of the UNT students but only 56.5 percent of the TWU students.

Characteristics of Survey Respondents

Because the targeted population was well represented by the large number of participants in the study, a strong congruence seems likely between the sample and the population at the time the study was conducted. A comparison of the two groups on the basis of four characteristics--gender, ethnic background, residence, and age--indicate that this is essentially true.

The percentage of Hispanic students responding from TWU was greater than would be expected for the student body as a whole. The percentages of Native American and Asian students responding at both UNT and TWU were just slightly greater than percentages for all students at the two institutions. A slightly lower percentage of White and out-of-state students at both TWU and UNT were included in the sample than existed in the population (see Table 5). Data

Table 5.--Comparison of Selected Characteristics of UNT and TWU Students Who Responded to the Survey with Those of all Students Enrolled in the Fall 1990

Characteristic	UNT		TWU	
	Sample	Total Student Body*	Sample	Total Student Body*
Gender				
Female	48.1	52.0	100.0	93.0
Male	51.9	48.0	0.0	7.0
Ethnic Background				
Black	8.7	6.9	11.3	12.7
Hispanic American	5.9	4.6	13.2	6.8
Indian	0.6	0.4	0.9	0.3
Asian/Oriental	5.1	4.7	3.5	1.8
White, not Hispanic	79.7	83.7	70.7	76.3
Other	0.0	0.0	0.0	2.1
State Residency				
In-State	93.8	91.6	93.4	90.2
Out-of-State	6.2	8.4	6.6	9.8
Average Age	22.6	25.0	26.5	26.0

*Source: UNT and TWU Offices of Research and Statistics, Fall 1990.

presented in Tables 3, 4, and 5 are consistent with analysis by Smith (1990).

Ten Activity Domains

The sixty-six items in the questionnaire measure activity areas that are aggregated to form ten activity domains. The items that make up each domain are reported in

Table 1. The ten activity domains are also listed in

Table 6.

Table 6.--Student Perceptions of the Importance of Each of Ten Activity Domains and Student Perceptions of the Degree to Which Each Domain is Done Well by the University

Activity Domain	Group	Importance		Done Well	
		Mean	P	Mean	P
1. Programs and Services for Students	TWU	4.4957	.001*	2.7794	.658
	UNT	4.3468		2.7455	
2. Emphasizing Minorities and Women	TWU	3.8571	.001*	2.7184	.474
	UNT	3.4801		2.6496	
3. Quality of Research and Teaching	TWU	2.6172	.638	4.4722	.001*
	UNT	2.6664		4.2592	
4. Research and Knowledge Dessimination	TWU	4.1957	.001*	2.4341	.299
	UNT	4.0193		2.5313	
5. Workshops and Counseling to Broaden Access	TWU	4.3686	.001*	2.4167	.072
	UNT	4.0734			
6. Athletics	TWU	3.6830	.009*	2.6026	.001*
		3.8956		3.0730	
7. Support Cultural Programs	TWU	4.2095	.001*	3.3381	.021*
	UNT	4.2134		2.5979	
8. Offer Graduate Programs	TWU	4.3526	.029*	2.4508	.210
	UNT	4.2134		2.5979	
9. Leasing Facilities	TWU	3.7330	.897	3.0952	.652
	UNT	3.7453		3.1410	
10. Increasing Standards	TWU	2.1827	.695	2.4557	.160
	UNT	2.2987		2.2979	

*Statistically significant at the .05 level.

Results Related to Proposition One

The first proposition to be tested was that business students in predominately female and coeducational universities will differ in their perceptions of the importance of identified activity domains of the universities they attend. Data relative to this proposition, presented in Table 6 (the t -values and degrees of freedom are provided in Table 9 in Appendix A), are consistent with analyses by Kleemann and Richardson (1985).

When TWU students' scores are compared with UNT students' scores, the analysis shows a significant difference on some domains at the .05 level. This finding is important because it lends strong support to results established earlier by Kleemann (1984; Kleemann and Richardson 1985). TWU students perceived activities concerned with the quality of student life (domain 1--programs and services for students, and domain 7--sponsoring cultural activities) and activities concerned with academics (domain 8--offering graduate programs, domain 4--research and knowledge dissemination, domain 5--workshops and counseling to broaden access) as more important domains than did UNT students. Emphasizing minorities and women was also considered more important by TWU students than by UNT students. Domain 6--athletics was seen as more important by UNT students.

The results from additional analysis of data from these groups are reported in Table 7. The data presented indicate that TWU students perceived the provision of programs and services for students as their highest priority, followed by quality of research and teaching. The third priority of TWU students was the offering of workshops and counseling to broaden access. The offering of graduate programs was ranked fourth, followed by the sponsoring of cultural activities. Research and knowledge dissemination was judged to be the sixth priority of TWU students.

Emphasis on minorities and women was ranked slightly below average in importance, as the seventh priority. TWU students perceived the remaining domains as below average in importance--leasing facilities was ranked eighth, athletics was ranked ninth, and increasing standards was ranked tenth. While UNT students rated athletics slightly below average on importance, as the seventh priority, they perceived the following domains as below average on importance: leasing facilities was ranked eighth, emphasis on minorities and women was ranked ninth, and increasing standards was ranked tenth.

UNT students ranked the provision of programs and services for students, quality of research and teaching, the offering of graduate programs, the offering of workshops and counseling to broaden access, and research and knowledge dissemination as their top priorities. The sixth priority,

as perceived by UNT students, was the sponsoring of cultural activities. Quality of research and teaching was perceived as the most important activity domain for students at both universities.

The provision of programs and services for students was assigned top priority by both TWU and UNT students. Students agreed almost as much on the second priority, the quality of research and teaching. Students also agreed on the importance of the domains dealing with the offering of graduate programs, the leasing of facilities, and the increasing of standards. However, differences appeared for domain 2, which dealt with a series of affirmative action statements. TWU students attached higher importance to this cluster of activities than did UNT students. Significantly, UNT students ranked this domain next to last in priority. Many of the pressures to which UNT must respond regarding emphasis on minorities in Texas relate to the university's competition with larger universities. The domain concerning workshops and counseling to broaden access was most popular with TWU students and least popular with UNT students, who tended to equate new services with more cost to students.

Domain 10--increasing standards, which dealt with a series of quality statements, was given least priority by both TWU and UNT students. The fact that intercollegiate athletics was at or near the bottom of the importance rankings for both TWU and UNT was expected. The survey

results reflect more similarities than differences between TWU and UNT students in terms of the importance attached to each of the activities. Teaching, research, and services were given high priority by students at both TWU and UNT. All domains received at least some support from both groups. Only one domain, increasing standards, received a mean score on importance of less than 3.10 from any group. This analysis is described in detail in Table 7.

The domain concerning the improvement of the quality of research and teaching produced several contrasts. Both TWU and UNT students assigned the second-highest priority to activities in this category. TWU students were substantially more interested in the provision of counseling and related services than were their UNT counterparts. Both TWU and UNT students indicated support for special assistance for the handicapped. The special emphasis on minorities and women domain produced the most significant differences of opinion. This activity was ranked among the lowest ten priorities for both TWU and UNT students. Both TWU and UNT students believed that the low priority assigned to recruiting athletics was appropriate.

TWU and UNT students alike differed in their perceptions of how well their universities were performing activities. Students' opinions regarding the importance of the activities also varied. Among the top ten priorities, most students felt that financial aid, career information

Table 7.--The Mean, Standard Deviation, and Rank for Each Activity Domain in Terms of Perceived Importance, the Perception of the Degree to Which it is Done Well, and the Effectiveness Discrepancy Measure

Domain	Importance			Done Well			EDM		
	Mean	Rank	SD	Mean	Rank	SD	Mean	Rank	SD
1. TWU	4.50	1	.33	2.78	2	.77	1.02	9	.49
UNT	4.35	1	.39	2.75	3	.69	.92	10	.45
COMB	4.37	1	.38	2.75	3	.71	.93	10	.45
2. TWU	3.86	7	.76	2.72	3	.92	.64	5	.58
UNT	3.48	9	.87	2.65	5	.89	.54	1	.53
COMB	3.54	9	.87	2.66	4	.89	.57	3	.53
3. TWU	4.47	2	.45	2.62	4	.98	.90	8	.55
UNT	4.26	2	.53	2.67	4	.96	.78	8	.48
COMB	4.29	2	.52	2.66	4	.96	.81	9	.49
4. TWU	4.20	6	.49	2.43	8	.92	.78	6	.51
UNT	4.02	5	.47	2.53	8	.86	.65	5	.43
COMB	4.05	5	.48	2.52	8	.87	.67	6	.44
5. TWU	4.37	3	.45	2.42	9	.88	1.07	10	.55
UNT	4.07	4	.53	2.59	7	.88	.74	7	.49
COMB	4.12	4	.53	2.56	7	.89	.78	7	.51
6. TWU	3.68	9	.72	2.60	5	1.10	.43	1	.52
UNT	3.90	7	.75	3.07	2	1.05	.56	3	.51
COMB	3.86	7	.75	3.00	2	1.07	.55	1	.51
7. TWU	4.21	5	.63	3.34	1	1.00	.58	3	.53
UNT	3.98	6	.68	3.08	1	1.03	.55	2	.47
COMB	4.02	6	.67	3.13	1	1.03	.56	2	.48
8. TWU	4.35	4	.55	2.45	7	1.15	.88	7	.54
UNT	4.21	3	.60	2.60	6	1.09	.79	9	.57
COMB	4.24	3	.59	2.57	6	1.10	.80	8	.57
9. TWU	3.73	8	.75	2.18	10	1.20	.59	4	.41
UNT	3.75	8	.90	2.30	9	1.28	.68	6	.60
COMB	3.74	8	.88	2.28	10	1.27	.66	5	.58
10. TWU	3.10	10	.87	2.47	6	1.13	.47	2	.41
UNT	3.14	10	.97	2.30	9	1.12	.59	4	.55
COMB	3.31	10	.95	2.33	9	1.13	.57	4	.53

Domain 1--student services, 2--minorities/women, 3--quality of research/teaching, 4--research/knowledge dissemination, 5--workshops/counseling, 6--athletics, 7--cultural activities, 8--graduate program, 9--leasing facilities, 10--increased standards

and job placement, and general information service needed improvement. In the second ten highest priorities, teaching was perceived most important by most of the students suggesting improvements. Improvement of students' involvement in decision making was a high priority for change, but most students felt that the removal of unsatisfactory teachers was the greatest need for change.

Results Related to Proposition Two

The second proposition to be tested was that business students in predominately female and coeducational universities will differ in their perceptions of how well the university they attend perform in regard the various activity domains. Data relative to this proposition are provided in Table 6.

TWU students rated the level of accomplishments for domains 3 and 7 (quality of research and teaching and sponsoring cultural activities) higher than did UNT students. TWU students perceived their university as doing a better job in offering these areas. As might be expected, athletics was perceived as the activity domain accomplished best at UNT. These findings are important because they lend strong support to those of Kleemann's earlier studies in this area (Kleemann 1984; Kleemann and Richardson 1985).

Further analysis was done on the data from these groups. The results of this process are reported in

Table 7. The sponsoring of cultural activities was perceived as the activity domain accomplished best at both institutions, followed by athletics. Students perceived the two universities--TWU and UNT--as doing a good job in offering these areas. As might be expected, TWU rated the level of accomplishment for domain 1--providing programs and services for students second, and domain 2--emphasizing minorities and women third, higher than did UNT students who rated these domains third and fifth respectively. UNT students rated the offering of graduate programs sixth at their university, higher than did TWU students who rated this domain as seventh. These findings suggest that the survey is valid for the purpose for which it was designed.

Results Related to Proposition Three

The third proposition to be tested was that business students in predominately female and coeducational universities will differ in their perceptions of the importance and actual level of achievement (effectiveness) in the various activity domains. The data presented in Table 6 relate to this proposition. In addition, an effectiveness discrepancy measure was computed for each activity domain. The effectiveness discrepancy measure results, Table 7, are consistent with the analysis by Kleemann and Richardson (1985).

Means and standard deviations were calculated for each activity and domain area for each university for both the importance and done well questions in order to test the model of effectiveness. The effectiveness discrepancy measure was calculated as well. The results of this process were ranked and are reported in Table 7. The data presented in Table 7 also show the means, ranks, and standard deviations obtained from the group scores. TWU students perceived five domains as above average in effectiveness. TWU students judged athletics as the most effective domain, increasing the standard as the second most effective domain, and the sponsoring of cultural activities as the third most effective domain. Leasing facilities, and emphasizing minorities and women were ranked as the fourth and fifth most effective domains, respectively.

TWU students perceived five domains as below average in effectiveness. Research and knowledge dissemination was perceived just slightly below average as the sixth most effective domain. This was followed by the offering of graduate programs, the quality of research and teaching, the provision of programs and services for students, and the offering of workshops and counseling to broaden access, as the least effective domains. While UNT students rated four domains below average in effectiveness, the offering of workshops and counseling was perceived just slightly below average, as the seventh most effective domain. This was

followed by the quality of research and teaching, the offering of graduate programs, and, as the least effective domain, the provision of programs and services for students.

UNT students perceived the emphasis of minorities and women as the most effective domain. This was followed by the sponsoring of cultural activities. The third most effective domain was athletics. Increasing standards was rated fourth, followed by research and knowledge dissemination. Leasing facilities was rated as the sixth most effective domain.

When the activities perceived by students as most important are compared with the mission statements at TWU and UNT, it is important to note that neither athletics nor the sponsoring of cultural activities are included in the university missions at TWU or UNT. This finding supports the results of previous studies.

Results Related to Proposition Four

The fourth proposition to be tested was that selected demographic variables would be related to differences in students' perceptions of the effectiveness of the universities with regard to activity domains. An effectiveness discrepancy measure was computed for each activity domain. The computation of this measure was explained in Chapter III.

The effectiveness discrepancy measure information and the information for demographic variables were submitted to multiple linear regression analysis. The results are reported in Table 8. The information, also reported in graphic form in Figures 3 through 26 in Appendix C with significant effectiveness discrepancy measures noted, is consistent with analyses by Kleemann and Richardson (1985).

Of the eight variables, age, ethnicity, grade-point average, political description, and classification were significant in at least one domain at both TWU and UNT. Ethnicity was statistically significant in at least one group for domain 1--programs and services for students, domain 2--emphasizing minorities and women, domain 3--quality of research and teaching, domain 4--research and knowledge dissemination, domain 7--sponsoring of cultural activities, and domain 10--increasing standards across both institutions. One variable, ethnicity, was statistically significant in four domains (emphasizing minorities and women, quality of research and teaching, sponsoring of cultural activities, and increasing standards) at both institutions. Each of the eight variables was significant for at least one domain at one institution. This finding lends strong support to earlier findings by Kleemann (1984; Kleemann and Richardson 1985).

Table 8.--Regression Results for Each of the Ten Activity Domains and Eight Demographic Variables

Domain	UNT (n = 533)	TWU (n = 106)	COMB (n = 639)
1. Student services			
	<u>P</u>	<u>P</u>	<u>P</u>
Age	.0006*	.0001*	.0010*
Campus residence	.1917	.8668	.2105
Ethnicity	.0394*	.4836	.1614
Financial aid	.8697	.2392	.3914
Grade point average	.4708	.2442	.2075
Political description	.2766	.0403*	.1235
Gender	.5008	.9519	.2603
Classification	.6890	.1932	.1244
UNT-- $R^2 = .0705$; $F = 2.31154$; sig $F = .0028*$			
TWU-- $R^2 = .2858$; $F = 2.07563$; sig $F = .0171*$			
COMB-- $R^2 = .04146$; $F = 3.78168$; sig $F = .0005*$			
2. Minorities and women			
	<u>P</u>	<u>P</u>	<u>P</u>
Age	.0575	.0855	.0502
Campus residence	.5049	.8750	.0800
Ethnicity	.0015*	.0036*	.0015*
Financial aid	.0456*	.1473	.1506
Grade point average	.0212*	.0072*	.0001*
Political description	.0018*	.5836	.0936
Gender	.5482	.5662	.3953
Classification	.8367	.8060	.1796
UNT-- $R^2 = .3674$; $F = 8.21728$; sig $F = .0001*$			
TWU-- $R^2 = .6932$; $F = 4.28021$; sig $F = .0001*$			
COMB-- $R^2 = .3595$; $F = 9.51414$; sig $F = .0001*$			
3. Quality of research and teaching			
	<u>P</u>	<u>P</u>	<u>P</u>
Age	.0622	.0600	.0908
Campus residence	.6962	.5161	.7303
Ethnicity	.0368*	.3616	.0445*
Financial aid	.2155	.9197	.1984
Grade point average	.0203*	.6276	.0067*
Political description	.6366	.0617	.4102
Gender	.5024	.5253	.6562
Classification	.4445	.0493*	.0354*
UNT-- $R^2 = .0739$; $F = 2.00182$; sig $F = .0063*$			
TWU-- $R^2 = .5289$; $F = 2.12750$; sig $F = .0251*$			
COMB-- $R^2 = .0541$; $F = 1.71915$; sig $F = .0266*$			

Table 8.--Continued

Domain	UNT (<u>n</u> = 533)	TWU (<u>n</u> = 106)	COMB (<u>n</u> = 639)
4. Research and knowledge dissemination			
	<u>P</u>	<u>P</u>	<u>P</u>
Age	.0883	.0917	.1512
Campus residence	.1440	.0341*	.0588
Ethnicity	.0074*	.2975	.0066*
Financial aid	.3760	.3670	.4151
Grade point average	.2393	.2281	.3514
Political description	.7328	.0150*	.4687
Gender	.3281	.4972	.0608
Classification	.3205	.1767	.0601
UNT-- $R^2 = .0796$; $F = 2.17031$; sig $F = .0025^*$			
TWU-- $R^2 = .5096$; $F = 1.96160$; sig $F = .0392^*$			
COMB-- $R^2 = .0569$; $F = 1.80926$; sig $F = .0169^*$			
5. Workshops and counseling			
	<u>P</u>	<u>P</u>	<u>P</u>
Age	.1702	.0760	.0686
Campus residence	.4106	.5238	.9665
Ethnicity	.0728	.8615	.1961
Financial aid	.5266	.5053	.0695
Grade point average	.2285	.7599	.1478
Political description	.8049	.0297*	.7911
Gender	.0451*	.9219	.0026*
Classification	.8929	.5099	.1677
UNT-- $R^2 = .0832$; $F = 2.28783$; sig $F = .0013^*$			
TWU-- $R^2 = .5147$; $F = 1.56281$; sig $F = .1382$			
COMB-- $R^2 = .0782$; $F = 2.57564$; sig $F = .0002^*$			
6. Athletics			
	<u>P</u>	<u>P</u>	<u>P</u>
Age	.0581	.1186	.0572
Campus residence	.0045*	.5269	.0101*
Ethnicity	.9897	.2386	.2189
Financial aid	.1368	.1864	.1590
Grade point average	.0436*	.6005	.0094*
Political description	.4423	.0003*	.1708
Gender	.0600	.3129	.0248*
Classification	.0213*	.0338*	.0041*
UNT-- $R^2 = .0822$; $F = 1.83059$; sig $F = .0161^*$			
TWU-- $R^2 = .4554$; $F = 1.89192$; sig $F = .0419^*$			
COMB-- $R^2 = .0888$; $F = 2.30097$; sig $F = .0012^*$			

Table 8.--Continued

Domain	UNT (<u>n</u> = 533)	TWU (<u>n</u> = 106)	COMB (<u>n</u> = 639)
7. Cultural activities			
	<u>P</u>	<u>P</u>	<u>P</u>
Age	.0475	.1346	.0576
Campus residence	.0033*	.4198	.0026*
Ethnicity	.0052*	.2065	.0206*
Financial aid	.2807	.8275	.3817
Grade point average	.7016	.5738	.6207
Political description	.0033*	.3879	.0095*
Gender	.6393	.2787	.4740
Classification	.3695	.2152	.6211
UNT-- $R^2 = .07747$; $F = 1.82240$; sig $F = .0166*$			
TWU-- $R^2 = .1833$; $F = .82692$; sig $F = .6687$			
COMB-- $R^2 = .0642$; $F = 1.79835$; sig $F = .0182*$			
8. Graduate program			
	<u>P</u>	<u>P</u>	<u>P</u>
Age	.0873	.0938	.1346
Campus residence	.1195	.5480	.0946
Ethnicity	.8804	.2900	.8407
Financial aid	.0557	.4317	.1390
Grade point average	.1046	.7125	.0223*
Political description	.2627	.0170*	.8819
Gender	.0183*	.9996	.0093*
Classification	.0875	.2715	.1550
UNT-- $R^2 = .0932$; $F = 1.60856$; sig $F = .0490*$			
TWU-- $R^2 = .4005$; $F = 1.40646$; sig $F = .1786$			
COMB-- $R^2 = .0807$; $F = 1.63684$; sig $F = .0419*$			
9. Leasing facilities			
	<u>P</u>	<u>P</u>	<u>P</u>
Age	.1778	.4394	.1542
Campus residence	.6001	.0949	.2234
Ethnicity	.6325	.6492	.1606
Financial aid	.0698	.0533	.2011
Grade point average	.1198	.0715	.0569
Political description	.5287	.5943	.5733
Gender	.3158	.8897	.2393
Classification	.4116	.0432*	.5466
UNT-- $R^2 = .0910$; $F = 1.63720$; sig $F = .0427*$			
TWU-- $R^2 = .4346$; $F = 1.61837$; sig $F = .0989$			
COMB-- $R^2 = .0769$; $F = 1.61269$; sig $F = .0467*$			

Table 8.--Continued

Domain	UNT (<u>n</u> = 533)	TWU (<u>n</u> = 106)	COMB (<u>n</u> = 639)
10. Increasing standards	<u>P</u>	<u>P</u>	<u>P</u>
Age	.3892	.1890	.2564
Campus residence	.0958	.4961	.0822
Ethnicity	.0209*	.6846	.0259*
Financial aid	.1612	.9890	.1963
Grade point average	.4715	.9880	.1963
Political description	.0183*	.0202*	.0733
Gender	.4829	.6468	.4742
Classification	.2562	.7039	.6286

UNT-- $R^2 = .0917$; $F = 1.73056$; sig $F = .0273*$

TWU-- $R^2 = .2497$; $F = .75330$; sig $F = .7443$

COMB-- $R^2 = .97386$; $F = 1.61884$; sig $F = .0451*$

*Denotes significance at .05 level.

P denotes significance level for the unique contribution of each variable

The Effects of Students' Characteristics on Their Perceptions of Effectiveness

The Effect of Age on Students' Perceptions of Effectiveness

Age was significant in students' perceptions of the need for providing programs and services for students at TWU, at UNT, and when the two groups were combined. Students who were older than 25 years were somewhat more critical of the effectiveness of this domain than were students who were younger than 26 years.

This finding is important because it lends strong support to earlier findings regarding the effect of age on

students' perceptions of effectiveness (see Figures 3, 4, and 5 in Appendix C).

The Effect of Campus Residence on Students' Perceptions of Effectiveness

Campus residence was a statistically significant variable among TWU students regarding research and knowledge dissemination and among UNT students for athletics. At both TWU and UNT, students residing on campus were more critical of the effectiveness of these domains than students who resided off campus. Campus residence was also statistically significant for domain 7--sponsoring cultural activities for UNT students and for both groups combined. Students residing on campus were less critical than students residing off campus regarding the effectiveness of this domain (see Figures 6, 7, and 8 in Appendix C).

The Effect of Ethnicity on Students' Perceptions of Effectiveness

Ethnicity was a significant variable for students at both TWU and UNT for the emphasis of minorities and women. Figures 9, 10, and 11 (Appendix C) graphically display how the six ethnic student groups perceived the effectiveness of this domain. Minority students, who were target populations for these activities, were more critical than Anglo students of their effectiveness. Although majority and minority students generally agreed on how well this domain was being accomplished, they differed on its importance, with minority

students rating its importance much higher than majority students. Minority students considered this domain among the least effective domains, while majority students considered it to be among the most effective. At TWU, Hispanic students were the most critical, followed by Asian students, Black students, White students, Other students, and Native American students. At UNT, Black students were the most critical for domain 2--emphasis of minorities and women, followed by Native American students, Asian students, Other students, Hispanic students, and White students. When the two student bodies were combined, Black students were the most critical, followed by Hispanic students, Asian students, Other students, Native American students, and White students.

Ethnicity was significant in students' perceptions of the quality of research and teaching for UNT and for both schools combined. Other students were the most critical of this domain--quality of research and teaching--followed by Native American students, Asian students, White students, Black students and Hispanic students. When the two student bodies were combined, Native American students were the most critical of the quality of research and teaching domain, followed by Other students, Hispanic students, Asian students, White students, and Black students.

Ethnicity was significant in students' perceptions of the need for research and knowledge dissemination at UNT and

for the sponsoring of cultural activities and the increasing of standards. UNT Native American students were the group most critical of research and knowledge dissemination, followed by Other students, Asian students, White students, Hispanic students, and Black students. Other students were the group most critical of UNT's effectiveness in sponsoring of cultural activities. They were followed by Black students, Native American students, Hispanic students, White students, and Asian students. Other students were the most critical of UNT's effectiveness in increasing standards, followed by Black students, Hispanic students, White students, Asian students, and Native American students.

Ethnicity was also significant in students' perceptions of the need for research and knowledge dissemination at both TWU and UNT and for the sponsoring of cultural activities. TWU and UNT Native American students were the group most critical of research and knowledge dissemination, followed by Other students, Hispanic students, Asian students, White students, and Black students the least critical. Other students were the group most critical of TWU's and UNT's effectiveness in sponsoring of cultural activities. They were followed by Hispanic students, Black students, Native American students, White students, and Asian students.

The Effect of Financial Aid on Students' Perceptions of Effectiveness

Financial aid was a significant variable for students at UNT for the emphasis of minorities and women. Students receiving financial aid were more critical of the effectiveness of this domain than were students who were not receiving financial aid (see Figures 12, 13, and 14 in Appendix C).

The Effect of Grade Point Average on Students' Perceptions of Effectiveness

Grade point average had a significant impact on TWU and UNT students' perceptions of the effectiveness of domain 2--emphasizing minorities and women. As indicated by the data presented in Figures 15, 16, and 17 in Appendix C, students with lower grade point averages (lower than 2.0) at both TWU and UNT were less critical of this domain than students with higher grade point averages. Students' grade point average was statistically significant for UNT students and for both groups combined for domain 3--quality of research and teaching. Students who had higher grade point averages (higher than 2.0) were more critical of the effectiveness of this domain than students who had lower grade point averages.

Grade point average had a significant effect on students' perceptions of the domain concerning the offering of graduate programs for UNT and the domain concernig the

athletics for the two groups combined. UNT students with lower grade point averages were less critical of these domains than students with higher grade point averages. Students with grade point averages below 2.0 were less critical of domain 8--offering graduate programs and domain 6--athletics.

The Effect of Political Description on Students' Perceptions of Effectiveness

The effect of political description on students' perceptions was significant at both TWU and UNT for the effectiveness of increasing standards. The data presented in Figures 18, 19, and 20 in Appendix C indicate that liberal students were more critical than conservative students of this domain at TWU and less critical than conservative students at UNT.

The effect of political description on students' perceptions of effectiveness was statistically significant at TWU for the provision of programs and services for students, research and knowledge dissemination, the offering of workshops and counseling to broaden access, and athletics. The degree to which students were critical of the effectiveness of the domains increased as their political descriptions ranged from conservative to liberal. Liberal students were the most critical of TWU's effectiveness in providing programs and services for students, research and knowledge dissemination, the offering

of workshops and counseling to broaden access, and athletics. The effect of political description on students' perceptions of effectiveness was significant for emphasis on minorities and women, and the sponsoring of cultural activities at UNT and for both groups combined. As students moved from politically self-described conservatives to political liberals, they became more critical. TWU conservative students rated emphasis on minorities and women third, and UNT liberal students rated athletics with effectiveness discrepancy measure which show that they perceived these domains as being accomplished better than their level of importance would indicate.

The Effect of Gender on Students' Perceptions of Effectiveness

The effect of gender on students' perceptions of effectiveness was a significant variable for UNT students and for both groups combined on domain 5--offering workshops and counseling to broaden access, and domain 8--offering graduate programs. Women were more critical than men of the effectiveness of these domains. While athletics was statistically significant when the two student bodies were combined, men were more critical of the effectiveness of this domain than women (see Figures 21, 22, and 23 in Appendix C).

The Effect of Classification on Students' Perceptions of Effectiveness

Classification had a significant influence on students' perceptions of the effectiveness of quality of research and teaching and on athletics at the two institutions. As indicated by the data in Figures 24, 25, and 26 in Appendix C, students' perceptions of effectiveness became more critical as their number of years at the university increased. Graduate students were the most critical of these domains (quality of research and teaching, and athletics), except quality of research and teaching and leasing facilities at TWU, where freshman students were the most critical. The effect of classification was also significant on domain 9--leasing facilities at TWU. Junior students were more critical of this domain than were freshman, sophomore, senior, and graduate students.

Further analysis was completed on data from the groups by comparing the scores of the two groups utilizing one-way analysis of variance. In order to determine how the groups differed in their responses when there were more than two groups, the least significant difference test was utilized. The difference was found to be significant at the .05 level.

Ten of the fourteen demographic variables (gender, age, classification, major, financial aid, part-time or full-time employment, ethnic background, grade point average, credit hours, and courses) significantly affected students'

perceptions of at least one of the universities regarding the importance of activities or how well the activities were performed. Age and classification significantly affected the perceptions of students at both TWU and UNT regarding the importance of activities or how well the activities were performed (see Table 10 in Appendix B). These data, presented in Appendix B, are consistent with the analyses of Martin and Dixon (1991), Kleemann and Richardson (1985) and Smith (1990).

Effects of Students' Characteristics on Their
Perceptions of the Activities'
Importance and How Well the
Activities Were Performed

The Effect of Gender on Students' Perceptions of
the Activities' Importance and How
Well the Activities Were Performed

Gender significantly influenced students' perceptions of the activities' importance for various organizational activities at UNT. Data presented in Table 10 indicate that students' perceptions of the importance of various organizational activities differed greatly between men and women. That is to say, women were more critical than men.

The Effect of Age on Students' Perceptions of the
Activities' Importance and How Well
the Activities Were Performed

Age was a significant variable for TWU, UNT, and for both groups combined for various organizational activities. Interestingly, gender was not. Data in Table 10 (Appendix

B) show how differently the student members of the two age groups perceived the activities' importance and how well the activities were performed. At TWU, UNT, and for both groups combined, students who were younger than 26 years were more critical of the various organizational activities than students who were older than 25 years.

The Effect of Classification on Students' Perceptions
of the Activities' Importance and How Well
the Activities Were Performed

The effect of classification on students' perceptions of effectiveness was statistically significant at UNT and for both groups combined for various organizational activities. Data in Table 10 (Appendix B) reveal that graduate students differed significantly at the .05 level from freshman, sophomore, junior, and senior students. That is to say, graduate students were less critical than undergraduate students of the activities' importance and how well the activities were being performed. Junior students were also less critical than freshman students and more critical than graduate students on how well they perceived that various activities were performed. Senior students were less critical than freshman students and more critical than graduate students on their perceptions of the levels of achievement of various organizational activities. Finally, the perceptions of sophomore students varied significantly from those of graduate students on how well the various

organizational activities were being performed. That is to say, sophomore students were more critical than graduate students. The perceptions of junior students differed from those of freshman and senior students on level of achievement.

The Effect of Major on Students' Perceptions
of the Activities' Importance and How Well
the Activities Were Performed

Major significantly influenced students' perceptions of the importance of various organizational activities at TWU, UNT, and for both groups combined. Students with nonbusiness majors were more critical than students with business majors.

The Effect of Financial Aid on Students' Perceptions
of the Activities' Importance and How Well
the Activities Were Performed

Financial aid had a significant impact on students' perceptions of the importance of the effectiveness of various organizational activities at TWU, UNT, and for both groups combined. As shown in Table 10 (Appendix B), students receiving financial aid were more critical of the various organizational activities than were students who were not receiving financial aid.

The Effect of Ethnicity on Students' Perceptions of
the Activities Importance and How Well
the Activities Were Performed

The effect of ethnicity was statistically significant at TWU, UNT, and the two schools combined. The perceptions of majority students were less critical than those of minority students on the importance of various organizational activities. At UNT, and for both groups combined, Black students were the group most critical of the importance of the various organizational activities while at TWU, Hispanic students were the group most critical. The data presented in Table 10 (Appendix B) reveal how members of the six ethnic student groups perceived the importance of various activities.

The Effect of a Part-Time or Full-Time Job on
Students' Perceptions of the Activities'
Importance and How Well the Activities
Were Performed

Part-time and full-time jobs had a significant impact on TWU students' perceptions of the importance of various organizational activities. As shown in Table 10 (Appendix B), students with part-time or full-time employment tended to be less critical of various activities than students without part-time or full-time employment.

The Effect of Grade Point Average on Students'
Perceptions of the Activities'
Importance and How Well the
Activities Were Performed

Grade point average statistically influenced students' perceptions of how well the activities were performed at TWU, UNT, and for both groups combined. Students with higher grade point averages were less critical of how well the various organizational activities were accomplished than were students with lower grade point averages.

The data presented in Table 11 (Appendix D) indicate the frequency of responses of both groups to each item on the questionnaire. The frequency distributions and means shown in Table 11 reveal that across all questions, as found by Kleemann, students generally placed high priority on activities regarding the quality of both academic and student life. Students believed that academics should be important at their universities and that high value should be given to the quality of student life. For detailed analysis, see Table 11 in Appendix D. The data in Appendices D, E, and F are consistent with analyses by Kleemann and Richardson (1985), Smith (1990), Stephenson (1990), and Stickel and Bonett (1991).

The data presented in Table 12 (Appendix E) reflect the means, standard deviation, and ranks for all sixty-six items by institution for students' perceptions of the importance of each item and the degree to which the various activities

were done well. TWU students perceived items concerned with quality of student life (item 32--career placement services; item 20--provide information to students; item 22--financial assistance services; item 65--academic advising; item 47--orientation programs for students; item 11--counseling for students; item 51--assistant handicapped; item 2--remove poor teachers; item 36--offer small classes; item 26--sponsor art events, performances, etc.; item 1--sponsor films, exhibitions, productions, etc.; and items concerned with academics (item 63--offer graduate programs--humanities; item 59--offer workshops--study skills; and item 60--offer graduate programs--professional) as more important items than did UNT students. For details see Table 12 in Appendix E.

These items are noted as significant in Table 13 (Appendix F) when the t-test was utilized in analyzing the data. The results of this analysis are very important because they lend strong support to earlier studies.

Summary

The data collected for this study were examined and analyzed in this chapter. Four propositions were tested using three statistical tests. A detailed summary of the study, the findings, and the conclusions are presented in Chapter V. Implications and recommendations for future research are also presented.

CHAPTER V

SUMMARY, FINDINGS, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS FOR FUTURE RESEARCH

Introduction

This chapter contains a summary of the problem, purpose, method and procedures, analysis of data, and major findings of the research as they relate to the instrument used for the collection of data and propositions. Based on the findings, conclusions and implications are drawn. Finally, recommendations for future research consistent with the findings are presented.

Summary

The problem of this research concerned the perceptions of Texas Woman's University (TWU) and University of North Texas (UNT) business students regarding the effectiveness of the universities. The main purpose of this study was to determine, evaluate, and analyze students' needs and their perceptions of the effectiveness of their universities.

The population for this research was 639 students enrolled in TWU and UNT business courses in the fall of 1990. A survey instrument developed by Richardson and others (1984) was modified to gather data for this study. The instrument was reviewed and validated. The final

instrument was administered to students. The overall return rate for the survey instrument was 96.8 percent.

Computations of frequencies, means, and statistical analyses were conducted at the University of North Texas Computing Center utilizing the Statistical Package for the Social Sciences.

Frequencies and percentages were reported for the respondents, as were demographic characteristics collected in the first part of the questionnaire. Descriptive statistics were used to rank order students' perceptions of the importance and how well each of the items and activity domains were performed. "An indicator of effectiveness was determined by analyzing the congruence between the perceptions of importance and perceptions of accomplishment" (Kleemann and Richardson 1985, 6). Analysis of variance was then used to test for significant differences between the groups according to the activities' importance and how well the activities were performed. A t -test was used to test for significant differences between the perceptions of TWU and UNT students. A regression model was used to examine the influence of age, gender, campus residence, ethnicity, whether receiving financial aid, grade point average, political description, and classification on whether perceptions of the effectiveness of domains related to differences in student characteristics. Results of the analyses of data were reported in tables and figures. A .05

level of significance was used for the analysis and interpretation of data.

Discussion of Findings

The three measurements involved in the research findings were the importance (priority) of the activity domain, how well the domain was performed (achievement), and the effectiveness distance measure (EDM) for the domain. TWU and UNT students' perceptions of their universities were similar in many ways. A high level of priority was given to domains concerning the quality of academic and student life by students at both universities. The domains given least priority by students were emphasis on minorities and women, the leasing of facilities, and the increasing of standards.

Students at both TWU and UNT perceived the sponsoring of cultural activities as the activity domain most effectively accomplished. Provision of programs and services for students was perceived as the second most effectively provided domain. UNT students rated quality of research and teaching, athletics, and offering graduate programs higher than did their TWU counterparts.

Emphasis on minorities and women, athletics, and sponsoring cultural activities were perceived as effective domains by TWU students. Students generally perceived the provision of programs and services for students, the quality of research and teaching, the offering of graduate programs,

and the offering of workshops and counseling to broaden access to be domains which were less effective at both TWU and UNT.

The variables examined made a statistically significant difference in the students' perceptions of effectiveness in many cases but not in all. A small contribution to explained variance in perceptions was found except for the effect of financial aid on domain 2--emphasis on minorities and women. A pattern which emerged, however, was that majority students were not as critical as minority students, traditional age students were less critical than older students, students who were not receiving financial aid were less critical than those receiving aid, and students living on campus were less critical than students living off campus.

In addition, Kleemann and Richardson's (1985) findings that politically conservative students were less critical than politically liberal students, that students with lower grade point averages were less critical than students with higher grade point averages, and that freshman students were less critical than graduate students were supported by the results of this study.

Conclusions

Based on the findings of this study, the following conclusions regarding the perceptions of university

effectiveness with respect to student satisfaction were drawn:

1. There were differences in TWU and UNT students' perceptions of how well activities were being performed, and on the importance they assigned to each of the activities. However, there were more similarities than differences regarding the importance attached to each of the activity domains.

2. Graduate students were less critical than those of undergraduate students on the activities' importance and how well the activities were being performed. Senior students were less critical than freshman students as well.

3. Success in school influenced students' perceptions of the effectiveness of the institution.

4. Students with higher grade point averages were more critical than students with lower grade point averages.

5. Students at neither institution excelled in all domains. However, they differed in the domains in which they excelled.

6. Students' satisfaction with key university services can be important determinants of whether they choose to continue at that school, to drop out, or to transfer to another college or university.

7. There were differences with perceptions of effectiveness with regard to students' demographic characteristics.

8. Ethnicity influenced students perceptions of the importance of various organizational activities. The perceptions of majority students were less critical than those of minority students on an activity's importance. However, both majority and minority students perceived TWU and UNT's performance of the various organizational activities as being similar.

9. Organizational effectiveness can be measured in institutions of higher education.

10. Women who attended TWU were more satisfied with aspects of the various organizational activities than were women who attended UNT. However, women who attended TWU were not very different than women who attended UNT.

11. Students at TWU were more satisfied with programs and services for students, emphasis on minorities and women, and sponsoring of cultural activities than were students at UNT.

12. Students perceived TWU and UNT positively on measures regarding academic (domains 8--offering graduate programs, domain 4--research and knowledge dissemination, domain 5--workshops and counseling to broaden access) and student life (domain 1--programs and services for students and domain 7--sponsoring cultural activities) and on perceived changes in values of tolerance and cultural awareness.

Implications

In the face of strong competition currently being experienced by institutions of higher education, quality and better service to students can be a pathway to success. The role of higher education should reflect the perceptions of strategic constituencies accordingly.

Assisting students in their integration into the campus environment can be beneficial to both students and to the institutions, and also understanding students' perceptions of university effectiveness is beneficial to both institutions and the students.

The results of this study indicate that the characteristics of students influence their perceptions of the effectiveness of the university they attend. Thus, as student characteristics (age, campus residence, ethnicity, financial aid, grade point average, political description, gender, and classification) change over time, the impact of changes in characteristics on students' perceptions of the effectiveness of universities should be monitored. Close examination of demographic data reveals a continuing challenge for institutions of higher education in the future. Students whose characteristics are most like those a university was designed for are less critical. This also implies that current student characteristics should be considered when creating or changing the university environment.

The necessity for universities to keep in touch with student's level of satisfaction with university responses was evidenced in the 1960s and early 1970s, when students revolted because administrators had allowed the programs of their universities to become out of touch with the needs and concerns of students. With the current decline in the number of students of traditional college age, students can make their needs heard by transferring to schools that are more sensitive to their needs and concerns.

The universities that take action now to meet the needs of students in the 2000s will be able to maintain and increase their enrollments in the coming years. As the number of potential students shrinks, the necessity to change to meet students' needs becomes critical (Cornish 1990; Joerges 1990; Keller 1983; Kleemann and Richardson 1985; Stage 1991). The needs of subpopulations should be considered as they are affected by specific domains. For example, students who are employed will choose a school because of the availability of classes at the hours they can attend, minority students will choose schools that are sensitive to their specific needs, less capable students will choose institutions that offer remedial programs, and single parents will look for universities that provide child care programs.

Recommendations for Future Study

On the basis of the findings of this study regarding perceptions of university effectiveness, the following recommendations for future research are made.

1. This study should be replicated in another country with a population similar to that of the TWU and UNT students enrolled in business courses in order to see if the same or similar results occur in different cultures.

2. A study should be conducted to determine why students are leaving for other schools or are dropping out.

3. In view of the major challenges facing institutions of higher education today--declining numbers of high school graduates and a declining pool of eighteen-year-olds desiring higher education--further studies should be conducted to determine the impact of these problems on students' perceptions of university effectiveness.

4. Additional studies should be undertaken to determine the importance of students' perceptions of university effectiveness regarding students' satisfaction at other universities.

5. Follow-up studies should be conducted in three, six, and nine years in order to monitor the conditions prevalent in higher education.

6. A study should be conducted of the perceptions of administrators, faculty, and students in order to determine

and assess the quality of programs and the needs of students.

APPENDIX A

STUDENT PERCEPTIONS OF TEN ACTIVITY DOMAINS BY
INSTITUTION, WITH N , MEANS, t -VALUES,
DEGREES OF FREEDOM, AND LEVEL OF
STATISTICAL SIGNIFICANCE

The data presented in Appendices A, B, and C are consistent with the analysis by Martin and Dixon 1991, Jones and Pinkney 1991, Kleemann and Richardson 1985, and Stephenson 1990.

Table 9.--Domain \bar{t} -Test for Independent Samples of the University of North Texas and Texas Woman's University

Activity Domain Group	Importance				Done Well					
	\bar{N}	Mean	\bar{t}	df	Prob.	\bar{N}	Mean	\bar{t}	df	Prob.
1. TWU	102	4.4957	3.61	612	.001*	102	2.7794	.44	619	.658
UNT	512	4.3468				519	2.7455			
2. TWU	104	3.8571	4.10	623	.001*	103	2.7184	.72	627	.474
UNT	521	3.4801				526	2.6496			
3. TWU	102	2.6172	-.47	629	.638	102	4.4722	3.81	624	.001*
UNT	530	2.6664				524	4.2592			
4. TWU	102	4.1975	3.46	626	.001*	104	2.4341	-1.04	629	.299
UNT	526	4.0193				527	2.5313			
5. TWU	104	4.3686	5.29	631	.001*	104	2.4167	-1.80	630	.072
UNT	529	4.0734				528	2.5878			
6. TWU	102	3.6830				104	2.6026			

Table 9.--Continued

Activity Domain Group	Importance			Done Well					
	<u>N</u>	<u>Mean</u>	<u>t</u>	<u>df</u>	<u>Prob.</u>	<u>N</u>	<u>Mean</u>	<u>t</u>	<u>df</u>
UNT 530	3.8956	-2.63	630	.009*	530	3.0730	-4.14	632	.001*
7. TWU 105	4.2095	3.25	631	.001*	105	3.3381	2.31	633	.021*
UNT 528	3.9773				530	3.0849			
8. TWU 104	4.3526	2.19	630	.029*	105	2.4508	-1.25	636	.210
UNT 528	4.2134				533	2.5979			
9. TWU 103	3.7330	-.13	631	.897	105	3.0952	-.45	635	.652
UNT 530	3.7453				532	3.1410			
10. TWU 104	2.1827	-.85	631	.395	105	2.4667	1.41	635	.160
UNT 529	2.2987				532	2.2979			

Note: N varies due to missing data. *Denotes significance at .05 level. Domain 1--student services, 2--minorities/women, 3--quality of research/teaching, 4--research/knowledge dissemination, 5--workshops/counseling, 6--athletics, 7--cultural activities, 8--graduate program, 9--leasing facilities, 10--standards

APPENDIX B

ANALYSIS OF VARIANCE INFORMATION FOR DEMOGRAPHIC VARIABLES
USING THE SUM OF ALL SIXTY-SIX ACTIVITY AREA ITEMS
AS THE SCORE, FOR EACH INSTITUTION AND
FOR THE TOTAL GROUP

Table 10.--One-Way ANOVA for Fourteen Variables for Important and Done Well
Based on Sixty-Six Items for Students at TWU, UNT, and Both Universities

Variable	Important						Done Well					
	Mean	SD	N	F	P		Mean	SD	N	F	P	
TWU												
Age												
25 or less	275.59	21.05	64	6.967	.0097*		177.75	46.96	64	4.825	.0305*	
26 or more	263.59	20.78	34				155.78	44.50	32			
Marital status												
Never married	273.60	21.59	58	.6582	.5201		169.81	48.13	57	2.252	.1109	
Previously married	268.11	26.64	9				200.11	33.82	9			
Married	268.61	20.32	31				162.70	46.35	30			
Classification												
Freshman	255.00		1	.5981	.6649		169.00	-	1	.3162	.8665	
Sophomore	263.55	11.45	11				171.09	55.99	11			
Junior	272.25	20.31	48				173.51	51.89	49			
Senior	273.55	22.33	33				168.80	38.11	30			
Graduate	272.00	43.56	5				148.80	36.33	5			
Major												
Business	271.58	22.01	56	.0013	.4711		171.73	52.55	52	.0860	.7699	
Non-business	271.42	21.29	42				168.89	40.32	44			
Current financial aid												
Yes	273.72	21.29	29	.4264	.5133		175.83	45.74	29	.5433	.4629	
No	270.59	21.81	69				168.09	47.85	67			

Table 10.--Continued

Variable	Important					Done Well				
	Mean	SD	<u>N</u>	<u>F</u>	<u>P</u>	Mean	SD	<u>N</u>	<u>F</u>	<u>P</u>
Residence										
On campus	277.70	18.51	23	2.495	.1175	181.74	48.28	23	1.757	.1882
Off campus	269.63	22.23	75			166.86	46.51	73		
Reside with parents										
Yes	271.71	14.66	17	.0015	.9692	182.18	47.74	17	1.289	.2592
No	271.48	22.86	81			167.90	46.90	79		
Political description										
Conservative	267.55	22.06	11	.2278	.9222	163.67	43.75	12	1.314	.2707
Somewhat con.	270.05	22.47	22			168.30	36.07	20		
Middle-of-road	272.12	21.87	42			180.38	49.51	40		
Somewhat liberal	272.44	18.68	16			167.06	56.01	17		
Liberal	276.71	27.33	7			139.43	36.13	7		
Ethnic background										
Black	277.10	25.56	10	3.782	.0037*	177.82	48.82	11	.4451	.8158
Hispanic	292.50	19.43	12			172.92	40.74	12		
American Indian	261.00	-	1			200.00	-	1		
Asian/Oriental	276.00	21.95	4			157.25	56.42	4		
White	266.76	19.43	70			168.36	48.33	67		
Other	290.00	-	1			221.00	-	1		
Current credit hours										
1 to 3	265.00	28.28	2	1.168	.3302	135.00	63.64	2	1.3869	.2447
4 to 6	263.07	15.86	14			160.77	40.61	13		
7 to 9	268.18	19.53	11			152.10	39.52	10		

Table 10.--Continued

Variable	Important					Done Well				
	Mean	SD	N	F	P	Mean	SD	N	F	P
10 to 12	268.69	27.62	16			164.18	48.86	17		
13 or more	275.40	20.97	55			179.43	48.11	54		
Current courses										
One	265.00	28.28	2	1.276	.2851	135.00	63.64	2	1.501	.2085
Two	262.79	15.61	14			159.23	38.68	13		
Three	272.75	19.18	8			144.43	45.96	7		
Four	267.25	25.75	20			167.48	45.15	21		
Five or more	275.43	21.17	54			179.11	48.52	53		
Grade point average										
3.5 to 4.0	269.93	24.72	27	1.518	.2034	179.74	39.00	27	.4131	.7988
3.0 to 3.49	271.70	19.01	30			169.10	43.70	29		
2.5 to 2.99	277.00	20.89	31			164.90	44.46	30		
2.0 to 2.49	257.29	20.43	7			162.57	73.87	7		
Below 2.00	260.67	16.01	3			173.00	109.67	3		
State residency										
In-state	271.11	20.91	91	.4578	.5003	169.72	47.62	89	.2735	.6022
Out-of-state	276.86	30.79	7			179.43	42.31	7		
Employed part- or full-time.										
Yes	268.08	20.99	66	5.374	.0226*	167.06	46.11	65	1.027	.3134
No	278.63	21.41	32			177.48	49.18	31		

Table 10.---Continued

Variable	Important					Done Well				
	Mean	SD	<u>N</u>	<u>F</u>	<u>P</u>	Mean	SD	<u>N</u>	<u>F</u>	<u>P</u>
UNT										
Gender										
Female	264.67	21.55	231	12.51	.0004*	174.16	44.17	236	.0190	.8905
Male	257.41	23.30	250			174.71	45.03	259		
Age										
25 or less	260.94	22.93	440	.0005	.9825	176.19	42.57	456	8.445	.0038*
26 or more	261.02	21.07	43			155.27	59.36	41		
Marital status										
Never married	261.10	23.03	419	.2430	.7844	175.56	44.06	425	2.235	.1080
Previously married	257.15	18.57	13			150.15	50.90	13		
Married	259.83	21.61	48			170.71	47.02	46		
Classification										
Freshman	283.50	12.12	4	3.277	.0115*	198.25	38.00	4	4.017	.0032*
Sophomore	265.63	24.16	48			177.04	49.72	48		
Junior	259.79	22.33	254			175.26	43.84	263		
Senior	260.04	22.67	171			173.91	41.54	176		
Graduate	288.75	9.98	4			90.25	90.64	4		
Major										
Business	259.60	22.52	367	5.438	.0201*	173.46	45.65	378	.8161	.3668
Non-business	265.22	23.04	116			177.68	40.59	119		

Table 10.--Continued

Variable	Important					Done Well				
	Mean	SD	<u>N</u>	<u>F</u>	<u>P</u>	Mean	SD	<u>N</u>	<u>F</u>	<u>P</u>
Current financial aid										
Yes	265.06	23.08	104	4.521	.0340*	171.58	42.63	103	.5117	.4747
No	259.72	22.57	376			175.18	45.13	391		
Residence										
On campus	261.83	26.06	53	.0889	.7657	178.58	41.59	55	.5285	.4676
Off campus	260.84	22.34	430			173.95	44.86	442		
Reside with parents										
Yes	256.72	21.89	90	3.704	.0549	177.06	46.16	99	.4466	.5043
No	261.83	22.88	390			173.71	44.23	395		
Political description										
Conservative	256.11	26.52	89	1.459	.2137	175.86	43.66	92	1.266	.2822
Somewhat cons.	260.58	21.44	100			178.80	42.35	104		
Middle-of-road	261.68	21.80	183			173.23	42.45	189		
Somewhat liberal	264.21	22.37	78			176.06	44.96	78		
Liberal	260.89	20.34	27			158.14	65.10	28		
Ethnic background										
Black	273.68	22.93	37	2.973	.0118*	177.97	43.76	37	.2385	.9454
Hispanic	259.60	20.96	30			172.50	44.30	28		
American Indian	257.67	23.03	3			174.67	27.74	3		
Asian/Oriental	262.21	27.19	24			169.23	51.59	26		
White	259.34	21.79	370			174.82	44.34	384		
Other	266.53	32.73	15			166.00	49.99	15		

Table 10.--Continued

Variable	Important					Done Well				
	Mean	SD	N	F	P	Mean	SD	N	F	P
Current credit hours										
1 to 3	257.50	10.34	4	1.962	.0992	115.25	101.3	4	4.399	.0017*
4 to 6	265.38	11.22	8			166.00	50.24	9		
7 to 9	258.82	19.88	33			153.72	62.39	32		
10 to 12	256.93	24.67	148			172.66	47.67	158		
13 or more	263.07	22.17	287			178.66	37.97	291		
Current courses										
One	257.50	10.34	4	1.252	.2879	115.25	101.3	4	4.425	.0016*
Two	261.08	11.44	12			172.15	46.81	13		
Three	261.18	21.24	34			154.09	61.17	33		
Four	257.88	25.05	172			172.59	49.03	181		
Five or more	262.85	21.79	257			179.17	35.90	263		
Grade point average										
3.5 to 4.0	258.39	23.21	70	1.972	.0977	156.82	52.17	68	4.231	.0022*
3.0 to 3.49	261.02	22.37	105			178.95	45.95	111		
2.5 to 2.99	259.52	23.18	196			172.90	44.94	193		
2.0 to 2.49	265.77	21.71	102			183.71	32.28	115		
Below 2.00	250.14	23.24	7			168.86	74.95	7		
State residency										
In-state	260.50	22.63	448	1.876	.1714	174.90	44.01	463	1.003	.3170
Out-of-state	266.29	24.69	31			166.61	52.80	31		

Table 10.--Continued

Variable	Important					Done Well				
	Mean	SD	N	F	P	Mean	SD	N	F	P
Employed part- or full-time										
Yes	260.77	21.52	348	.0360	.8496	172.74	46.41	359	1.558	.2126
No	261.21	25.92	131			178.37	39.13	134		
TWU and UNT Combined										
Gender										
Female	266.71	21.76	329	24.38	.0001*	173.08	45.00	332	.1915	.6619
Male	257.41	23.30	250			174.71	45.03	259		
Age										
25 or less	262.80	23.19	504	.0359	.8498	176.38	43.08	520	14.16	.0002*
26 or more	262.27	20.85	77			155.49	53.04	73		
Marital status										
Never married	262.61	23.19	477	.0515	.9499	174.90	44.53	492	.9343	.3935
Previously married	261.63	22.31	22			170.59	50.47	22		
Married	263.27	21.42	79			167.55	46.61	76		
Classification										
Freshman	277.80	16.51	5	2.0917	.0805	192.40	35.41	5	3.2545	.0118*
Sophomore	265.23	22.27	59			175.93	50.48	59		
Junior	261.77	22.45	302			174.98	45.11	312		
Senior	262.22	23.09	204			173.16	41.00	206		
Graduate	279.44	32.61	9			122.77	68.50	9		

Table 10.--Continued

Variable	Important					Done Well				
	Mean	SD	N	F	P	Mean	SD	N	F	P
Major Business	261.18	22.79	423	7.178	.0076*	173.24	46.47	430	.2484	.6184
Non-business	266.87	22.68	158			175.30	40.57	163		
Current financial aid										
Yes	266.94	22.40	133	6.055	.0142*	172.51	43.18	132	.1252	.7235
No	261.40	22.77	445			174.08	45.54	458		
Residence										
On campus	266.63	25.00	76	2.544	.1113	179.51	43.37	78	1.447	.2294
Off campus	262.14	22.51	505			172.94	45.11	515		
Reside with parents										
Yes	259.10	21.56	107	3.212	.0736	177.81	46.21	116	1.183	.2771
No	263.49	23.13	471			172.74	44.68	474		
Political description										
Conservative	257.37	26.21	100	1.879	.1125	174.45	43.62	104	1.822	.1228
Somewhat cons.	262.28	21.84	122			177.10	41.44	124		
Middle-of-road	263.62	22.14	225			174.47	43.73	229		
Somewhat liberal	265.60	21.91	94			174.45	46.92	45		
Liberal	264.14	22.44	34			154.40	60.44	35		
Ethnic background										
Black	274.40	23.26	47	4.228	.0009*	177.93	44.42	48	.2477	.9410
Hispanic	269.00	25.26	42			172.62	42.74	40		
American Indian	258.50	18.87	4			181.00	25.94	4		

Table 10.--Continued

Variable	Important						Done Well					
	Mean	SD	N	F	P		Mean	SD	N	F	P	
Asian/Oriental	264.17	26.60	28				167.63	51.38	30			
White	260.51	21.58	440				173.86	44.96	451			
Other	268.00	32.15	16				169.43	50.21	16			
Current credit hours												
1 to 3	260.00	15.46	6	2.690	.0304*		121.83	84.08	6	5.8165	.0001*	
4 to 6	263.90	14.10	22				162.90	43.71	22			
7 to 9	261.15	19.99	44				153.33	57.32	42			
10 to 12	258.07	25.12	164				171.84	47.71	175			
13 or more	265.04	22.42	342				178.88	39.64	345			
Current courses												
One	260.00	15.46	6	2.210	.0666		121.83	84.08	6	5.857	.0001*	
Two	262.00	13.60	26				165.69	42.25	26			
Three	263.38	21.14	42				152.40	58.38	40			
Four	258.85	25.21	192				172.05	48.55	202			
Five or more	265.03	22.17	311				179.16	38.21	316			
Grade point average												
3.5 to 4.0	261.59	24.07	97	.9086	.4585		163.33	49.68	95	2.613	.0345*	
3.0 to 3.49	263.39	22.05	135				176.90	44.95	140			
2.5 to 2.99	261.90	23.54	227				171.82	44.85	223			
2.0 to 2.49	265.22	21.64	109				181.99	35.71	122			
Below 2.00	253.30	21.04	10				170.10	80.13	10			

Table 10.---Continued

Variable	Important					Done Well				
	Mean	SD	<u>N</u>	<u>F</u>	<u>P</u>	Mean	SD	<u>N</u>	<u>F</u>	<u>P</u>
State residency										
In-state	262.29	22.68	539	2.394	.1223	174.06	44.60	532	.4547	.5004
Out-of-state	268.23	25.78	38			168.97	40.75	38		
Employed part- or full-time										
Yes	261.93	21.57	414	1.621	.2034	171.87	46.35	424	2.359	.1250
No	264.63	25.97	163			178.20	41.03	165		

*Denotes significance at .05 level.

APPENDIX C

**GRAPHIC PRESENTATION OF THE EFFECTIVENESS DISCREPANCY
MEASURES FOR THE TEN ACTIVITY DOMAINS, BY
DEMOGRAPHIC VARIABLES**

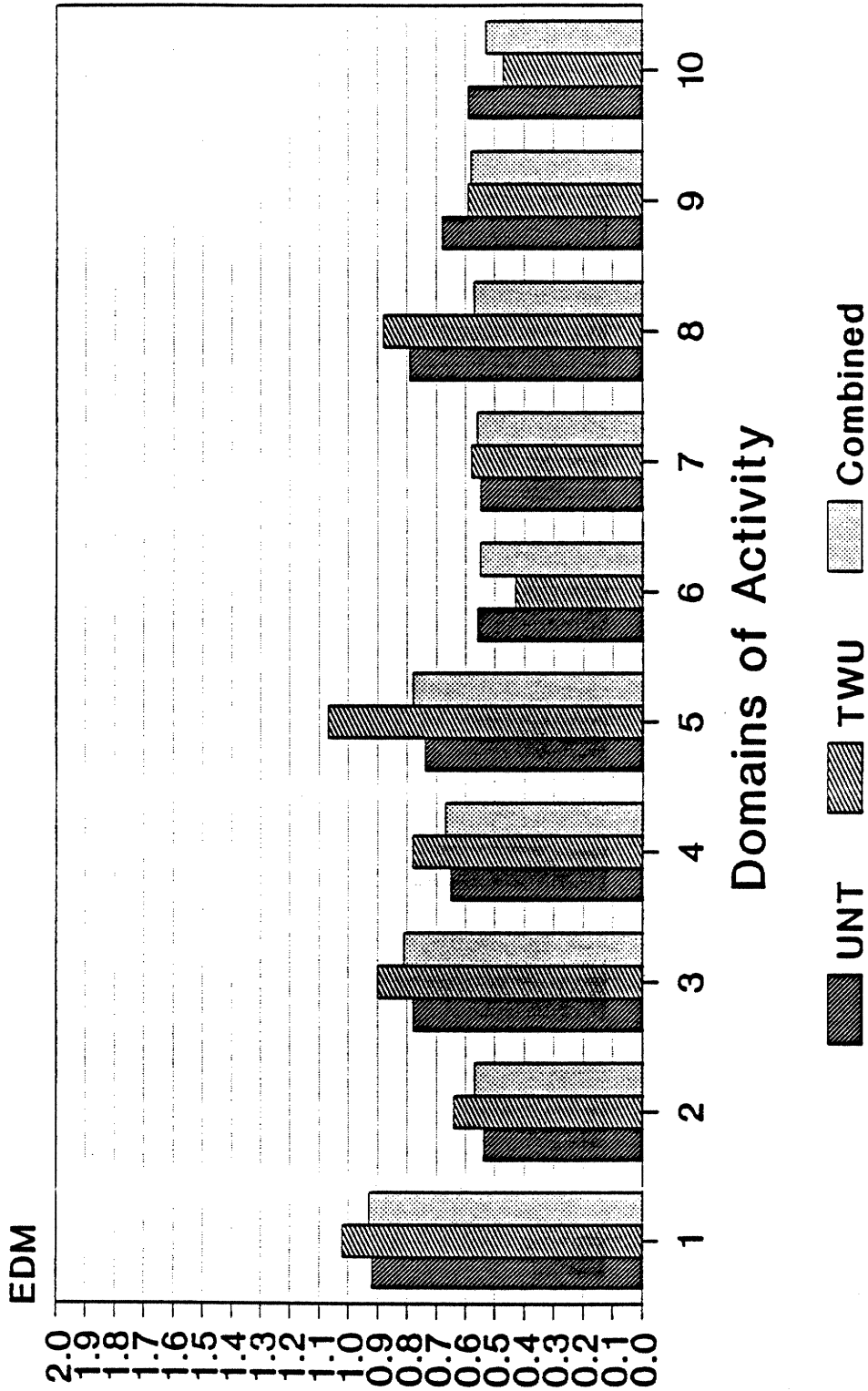
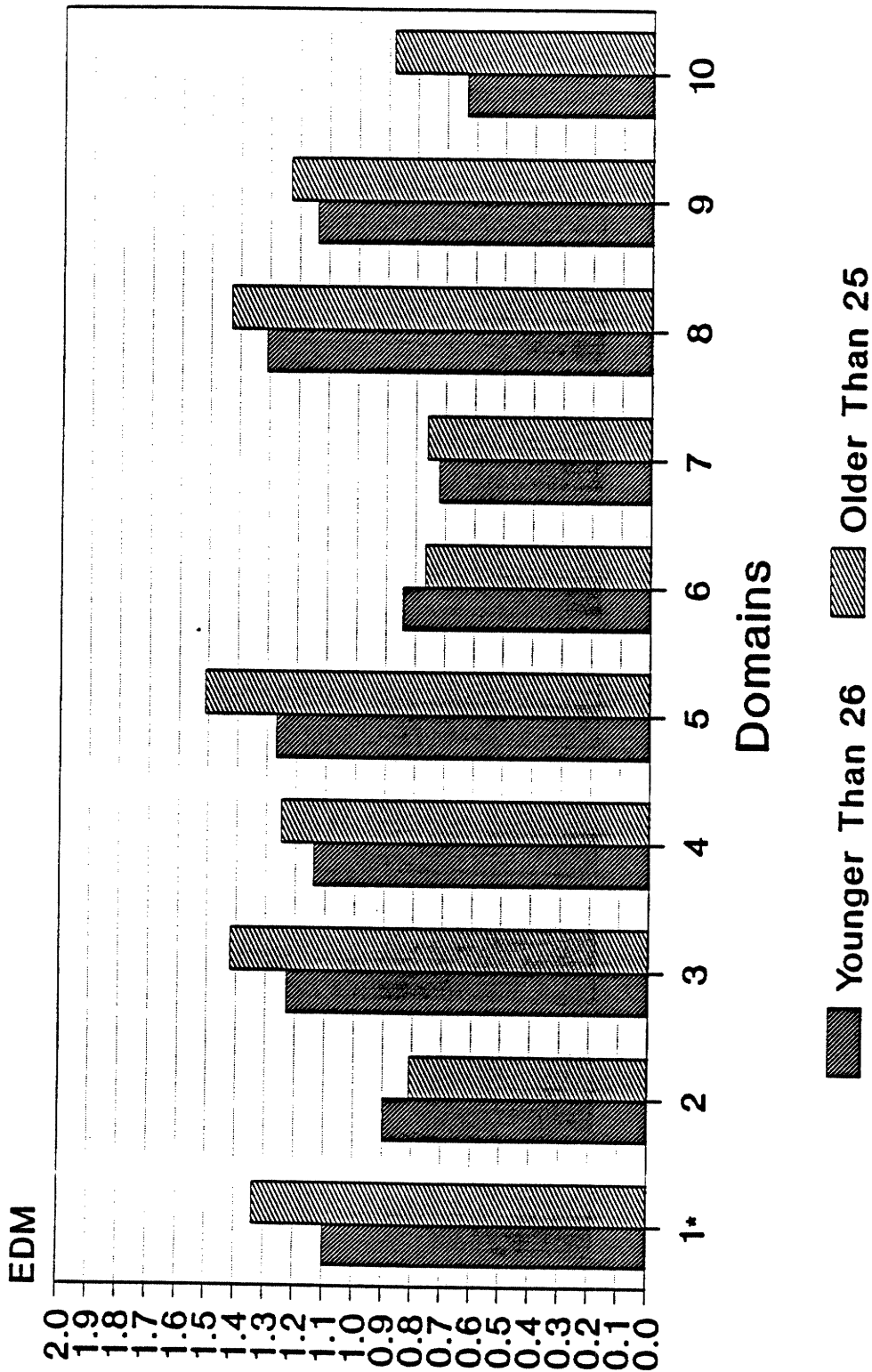
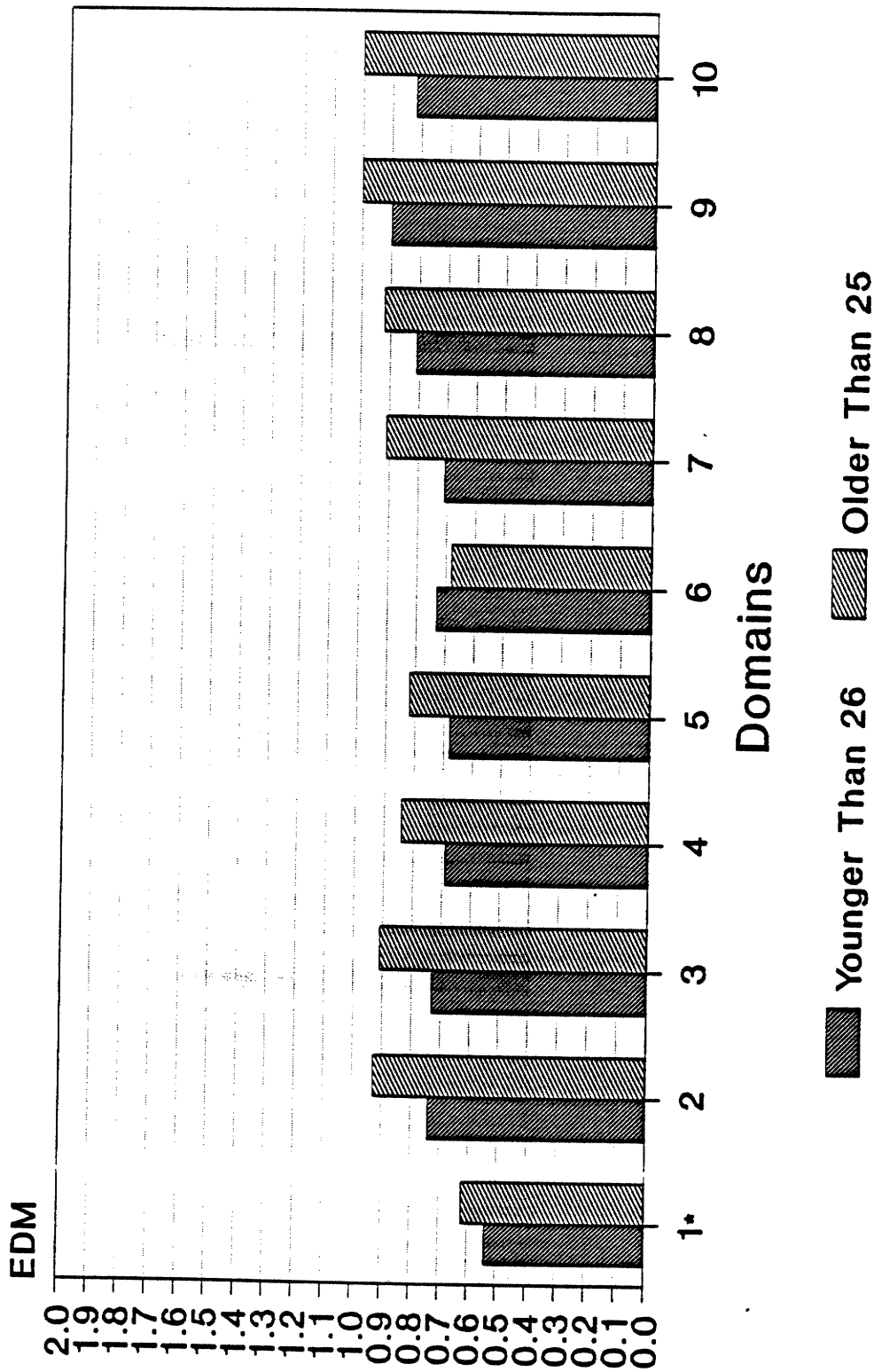


Fig. 2. Effectiveness Profiles for Two Universities

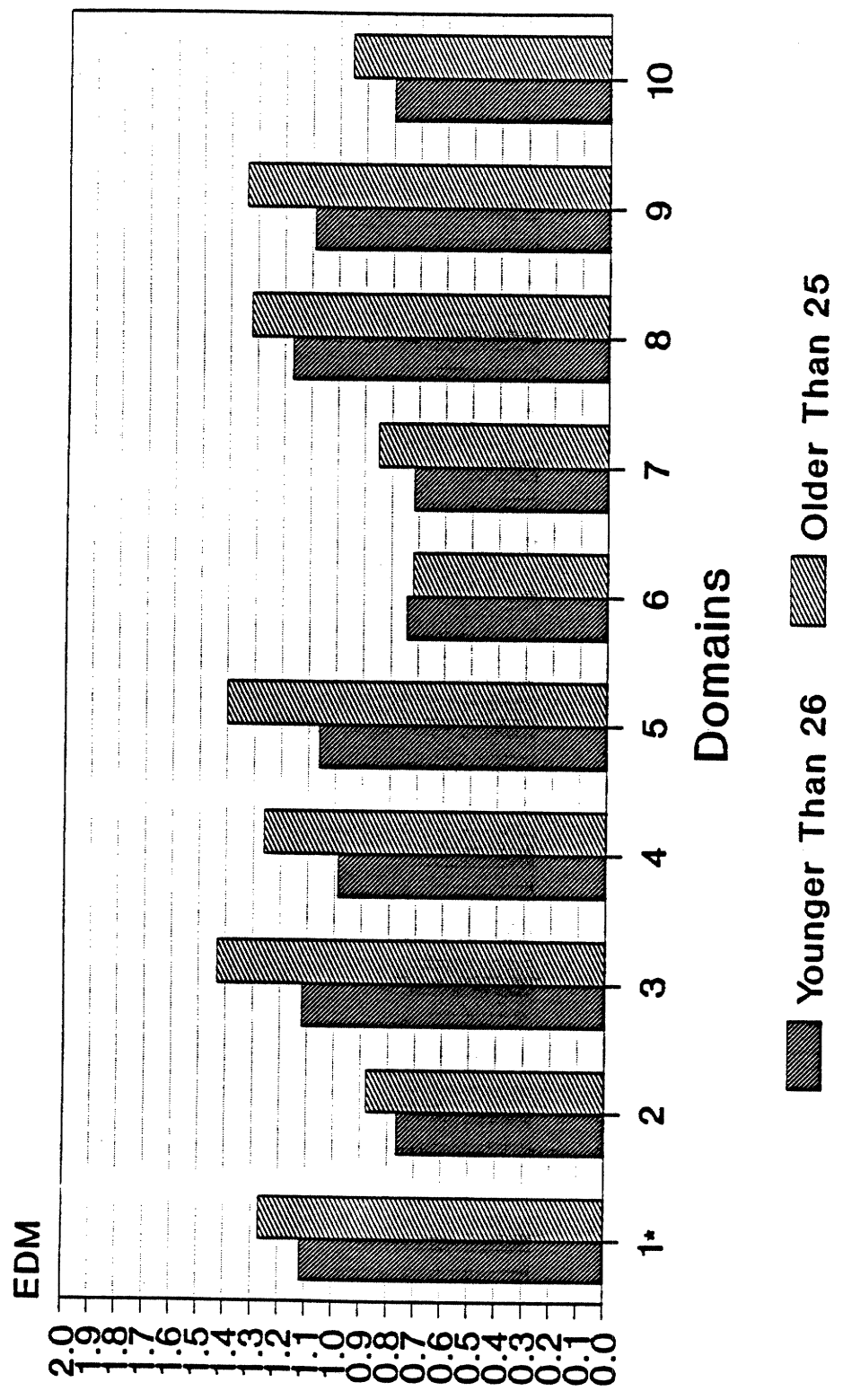


*Significant difference at .05 level
Fig. 3. EDM By Age for TWU Students

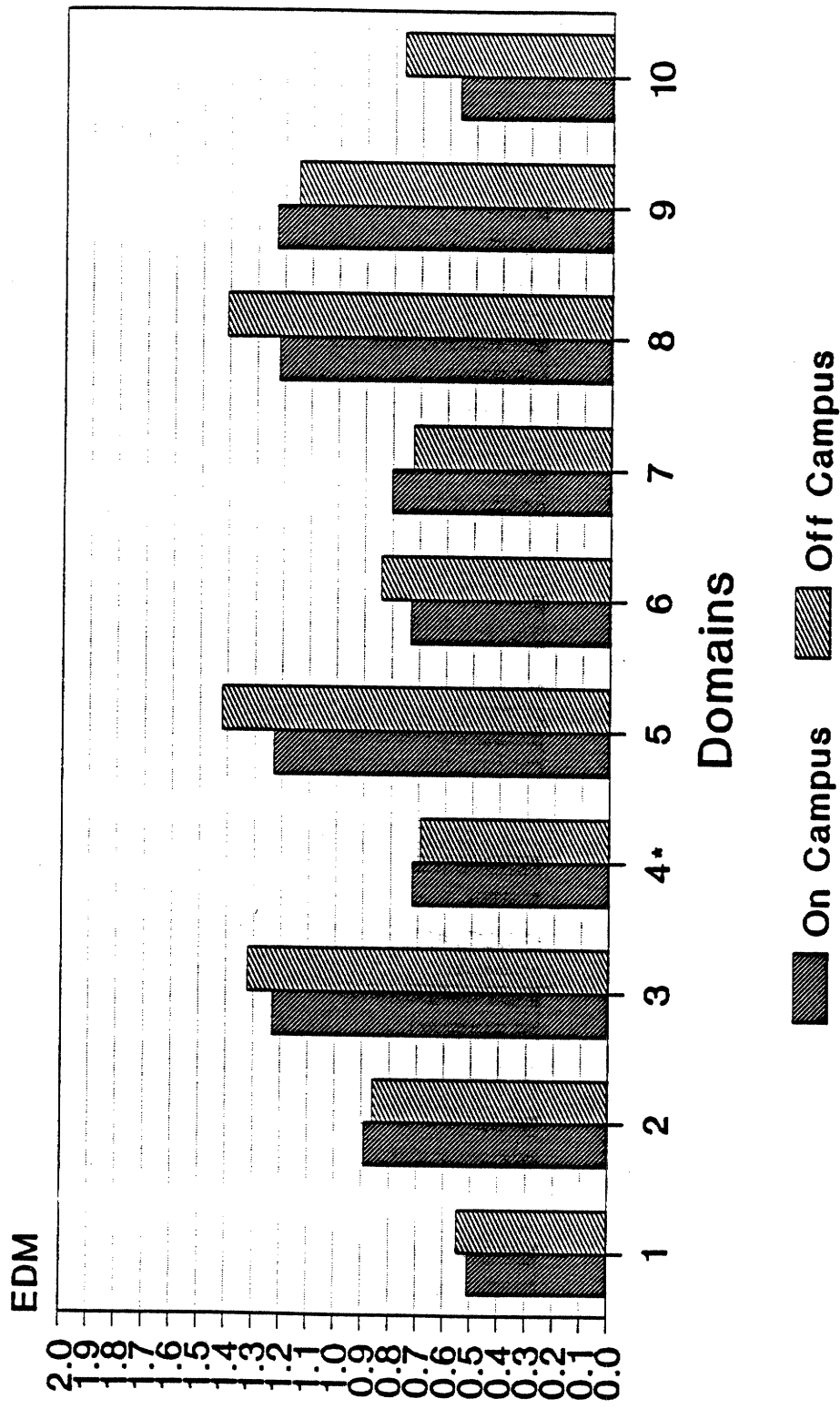


*Significant difference at .05 level

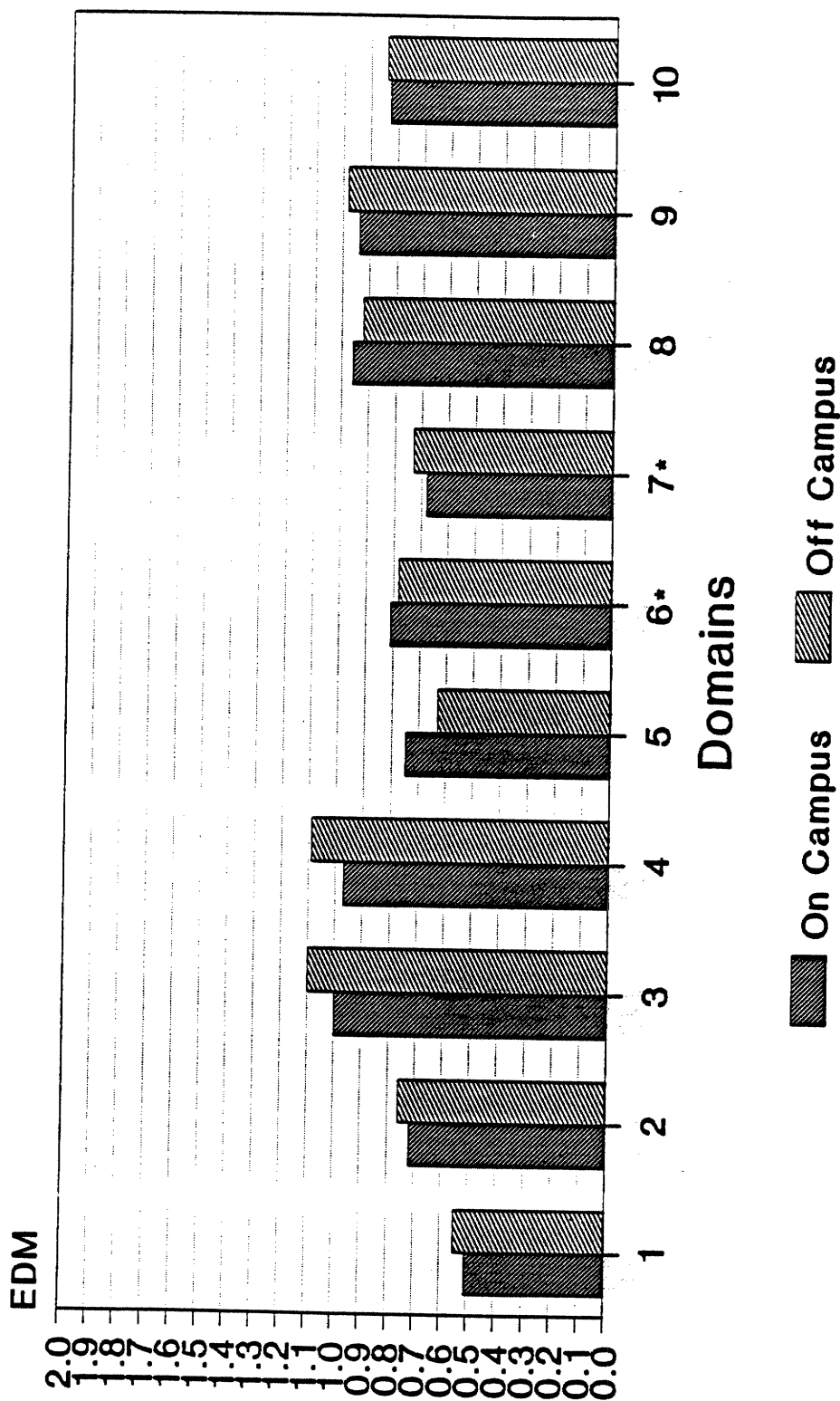
Fig. 4. EDM By Age for UNT Students



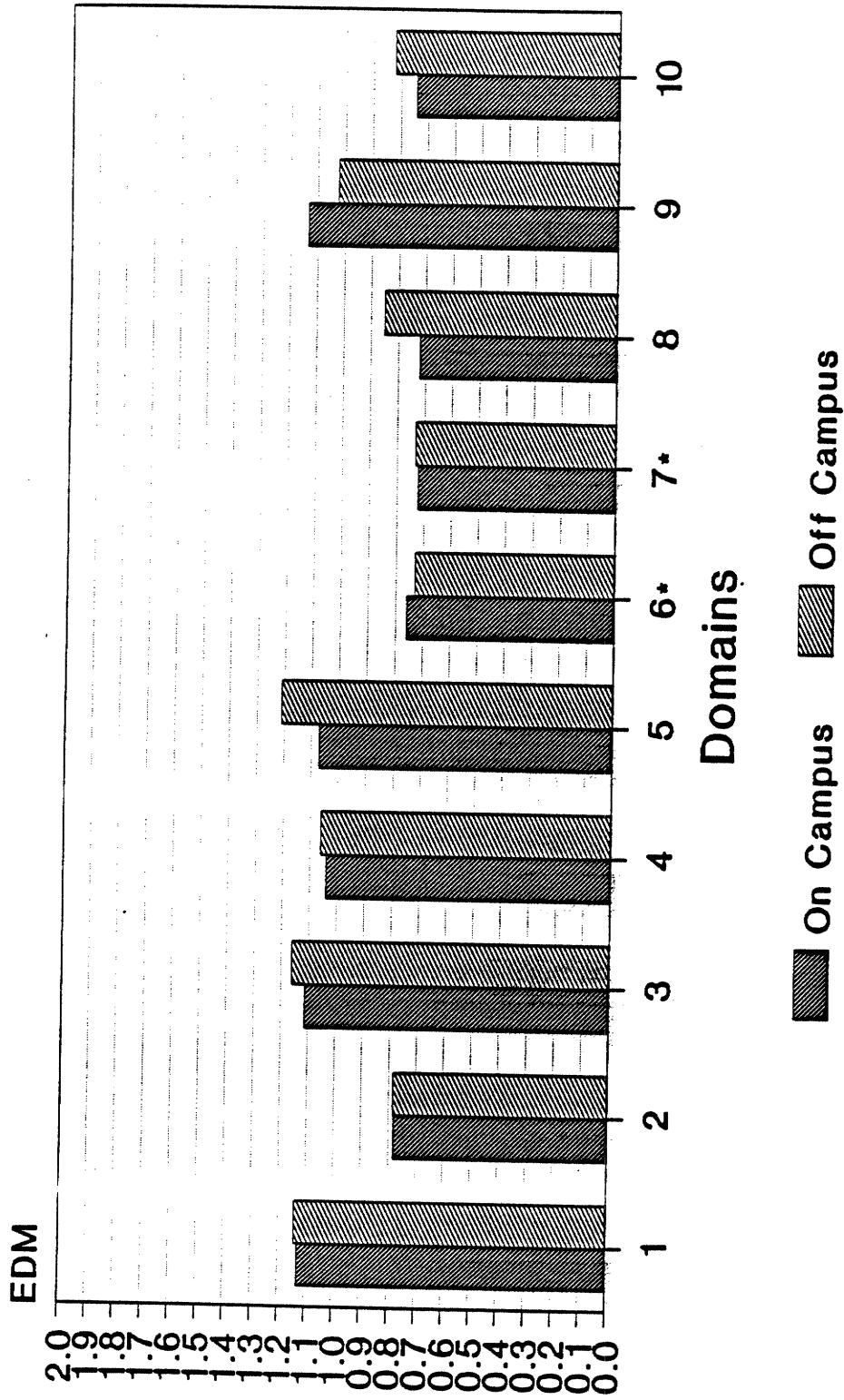
*Significant difference .05 level
Fig. 5. EDM By Age for UNT, TWU, and Students Combined



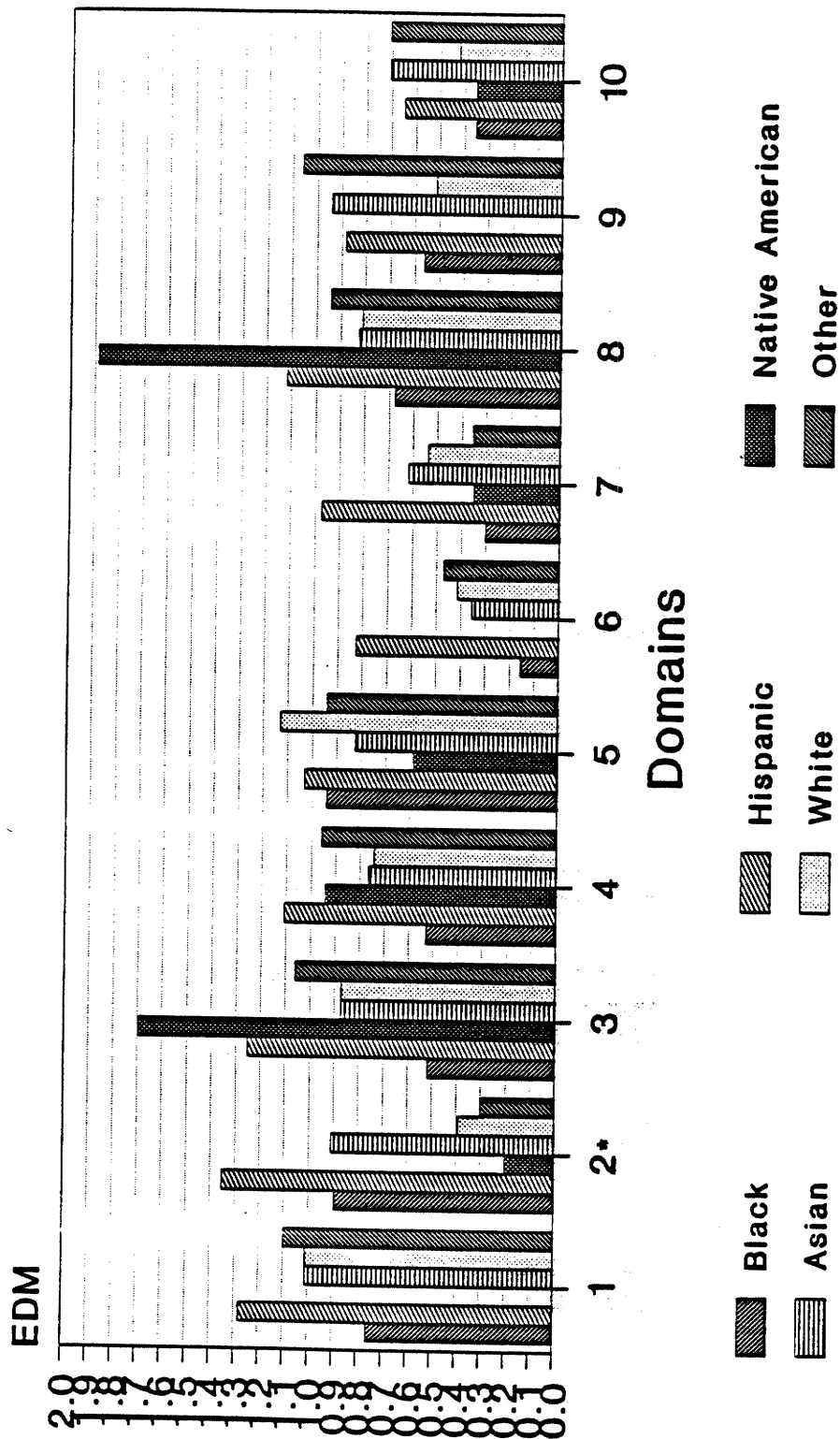
*Significant difference at .05 level
Fig. 6. EDM By Residence for TWU Students



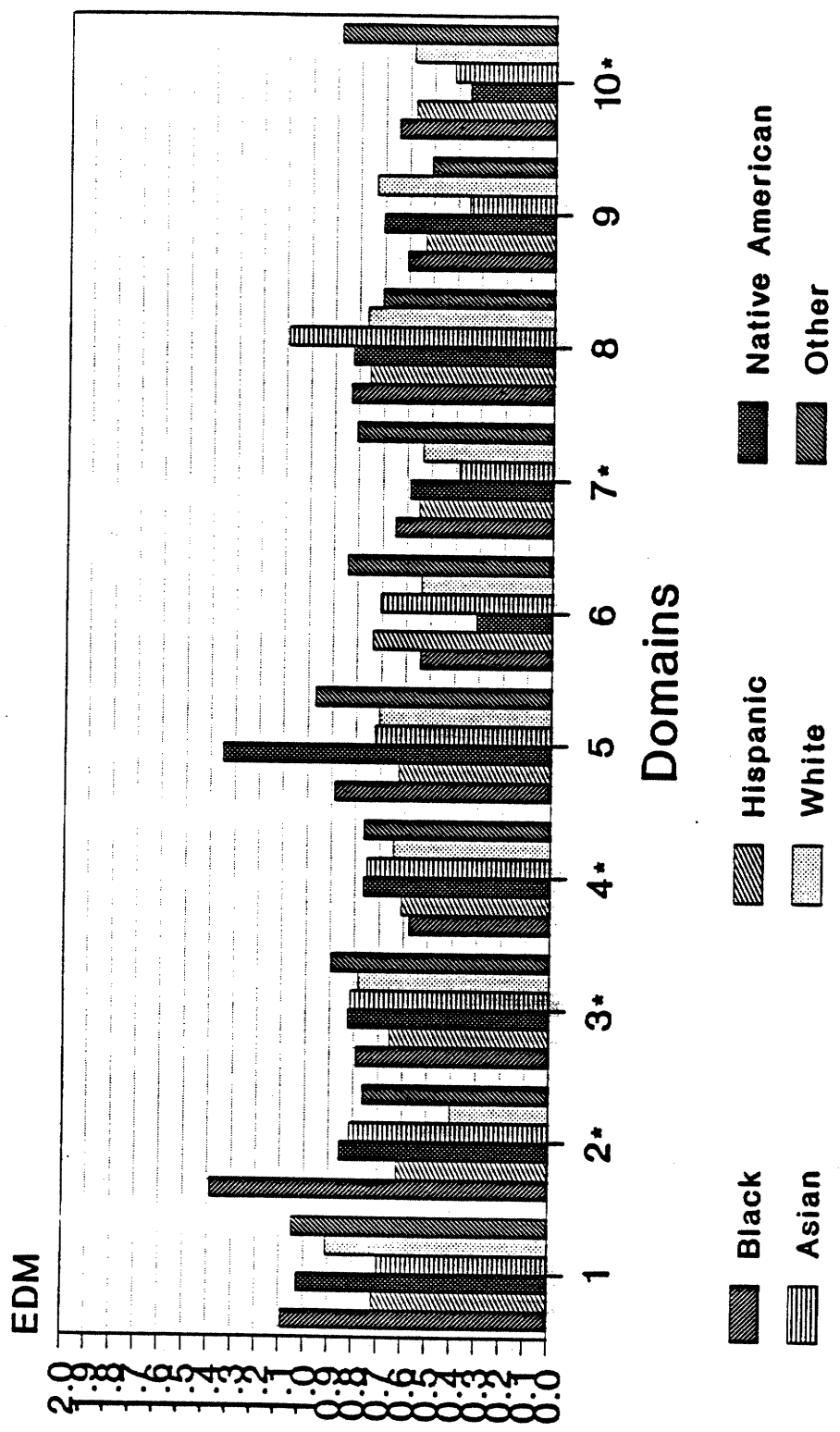
*Significant difference at .05 level
Fig. 7. EDM By Residence for UNT Students



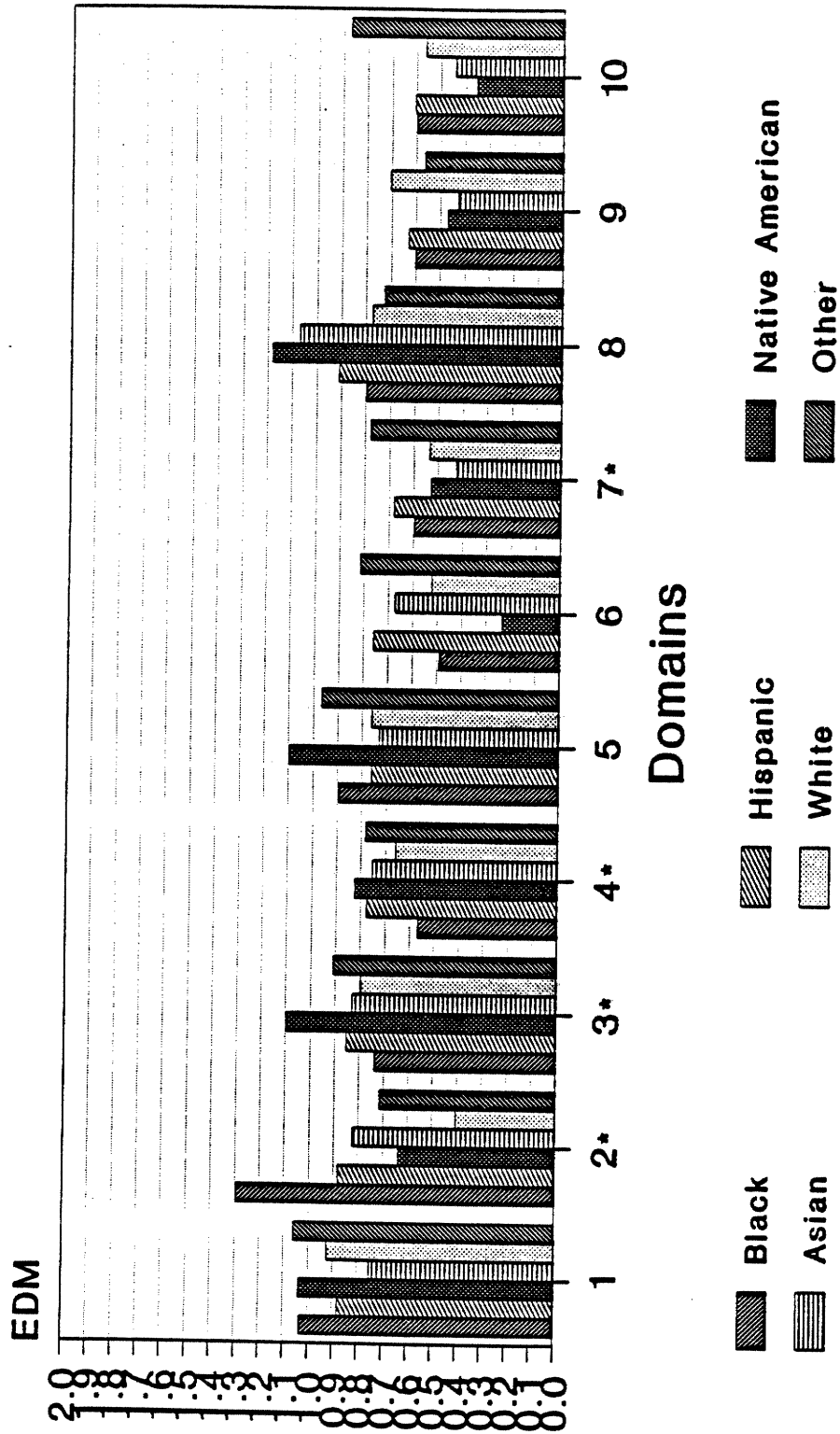
*Significant difference at .05 level
**Fig. 8. EDM By Residence for UNT, TWU,
and Students Combined**



*Significant difference at .05 level
Fig. 9. EDM By Ethnicity for TWU Students



*Significant difference at .05 level
Fig. 10. EDM By Ethnicity for UNT Students



*Significant difference at .05 level
Fig. 11. EDM By Ethnicity for UNT, TWU, and Students Combined

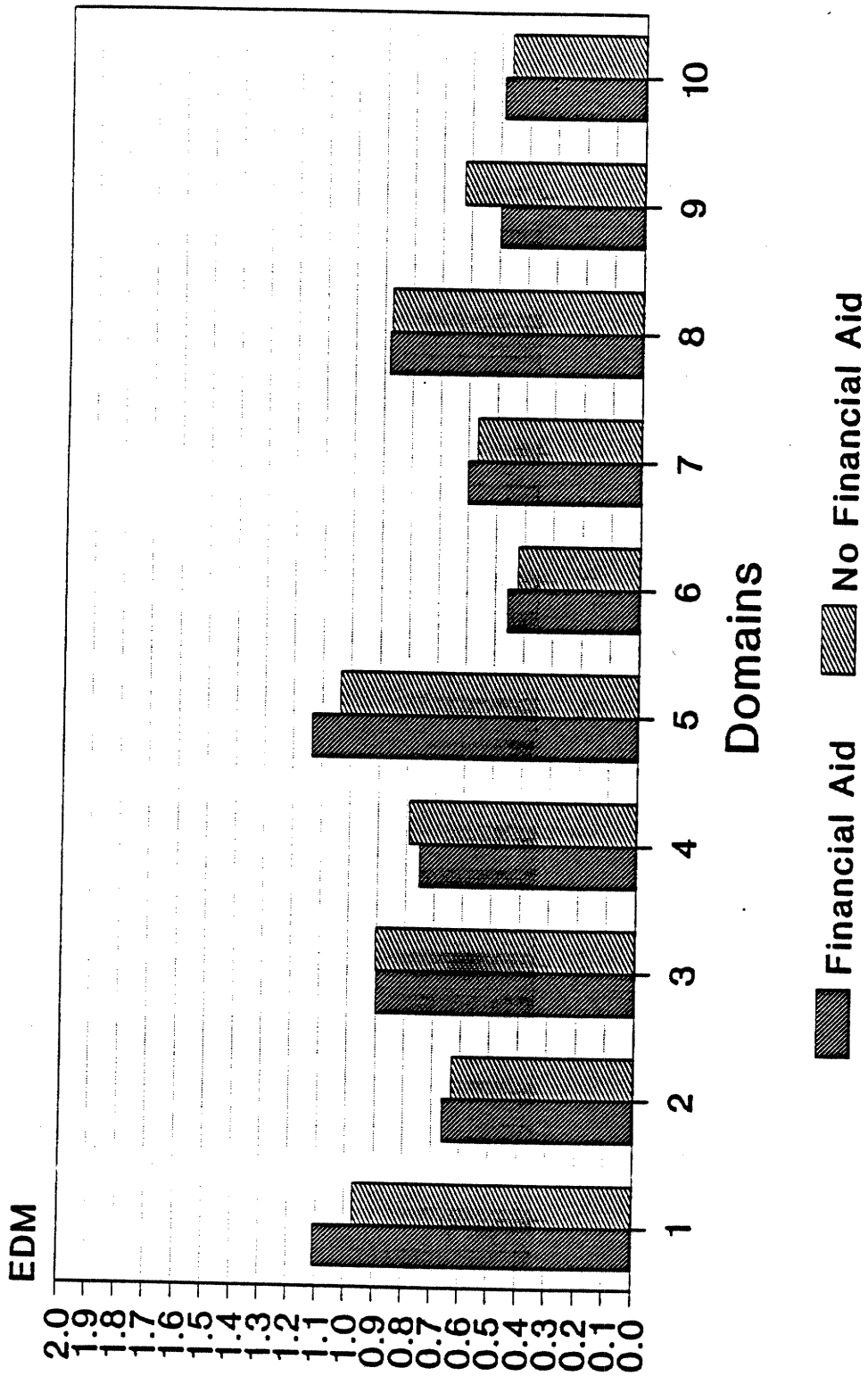
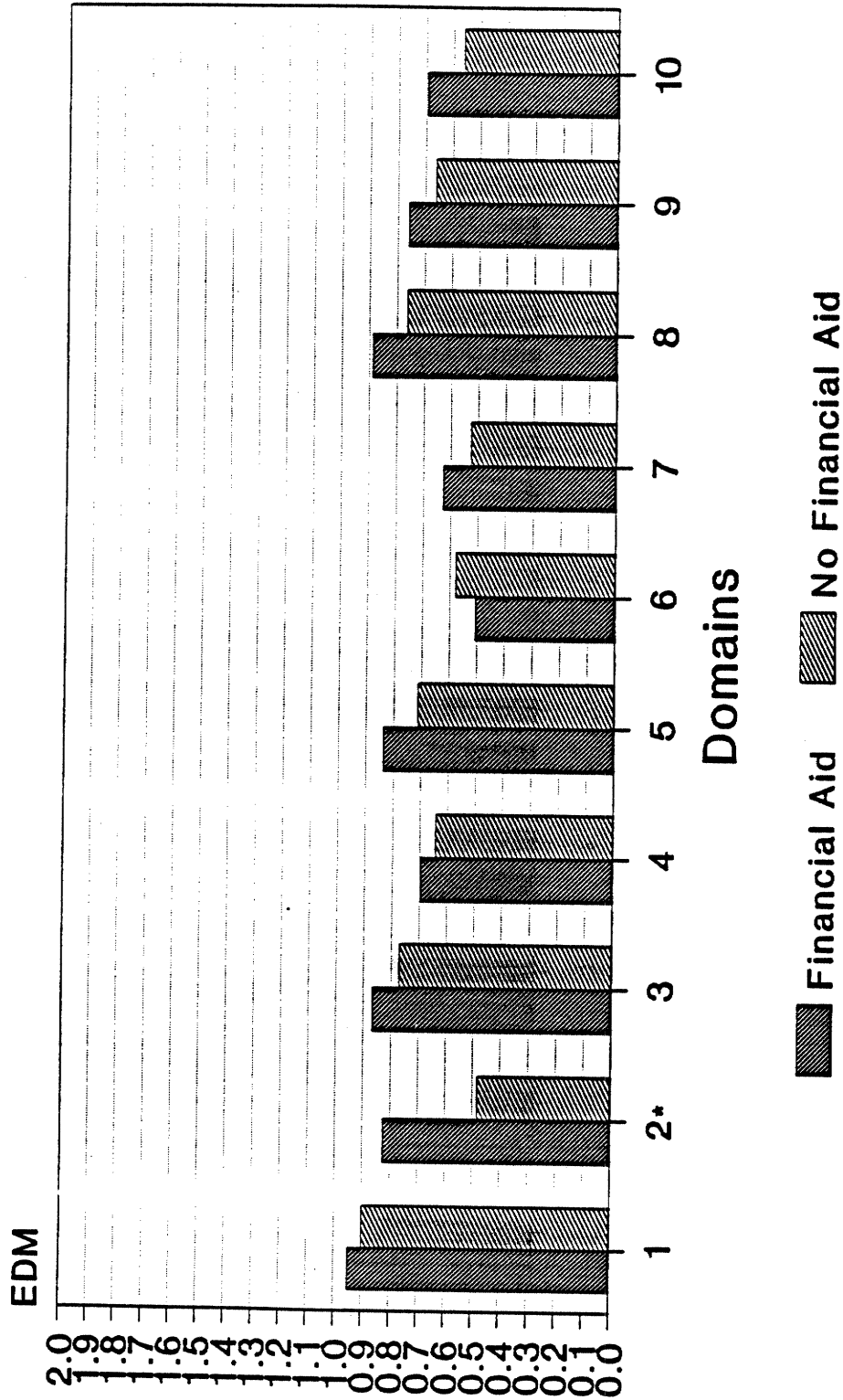


Fig. 12. EDM By Financial Aid for TWU Students



*Significant difference at .05 level
Fig. 13. EDM By Financial Aid for UNT Students

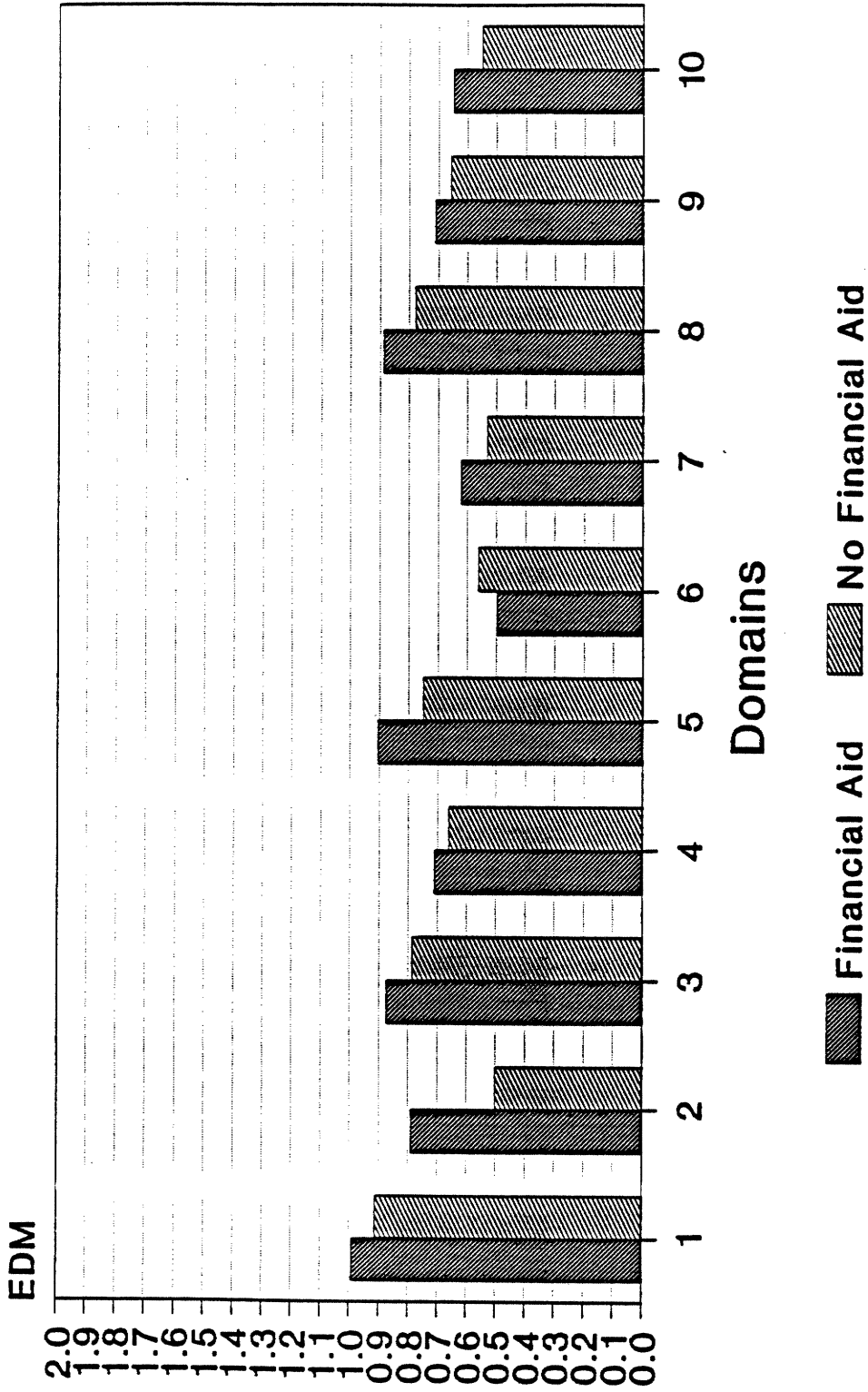
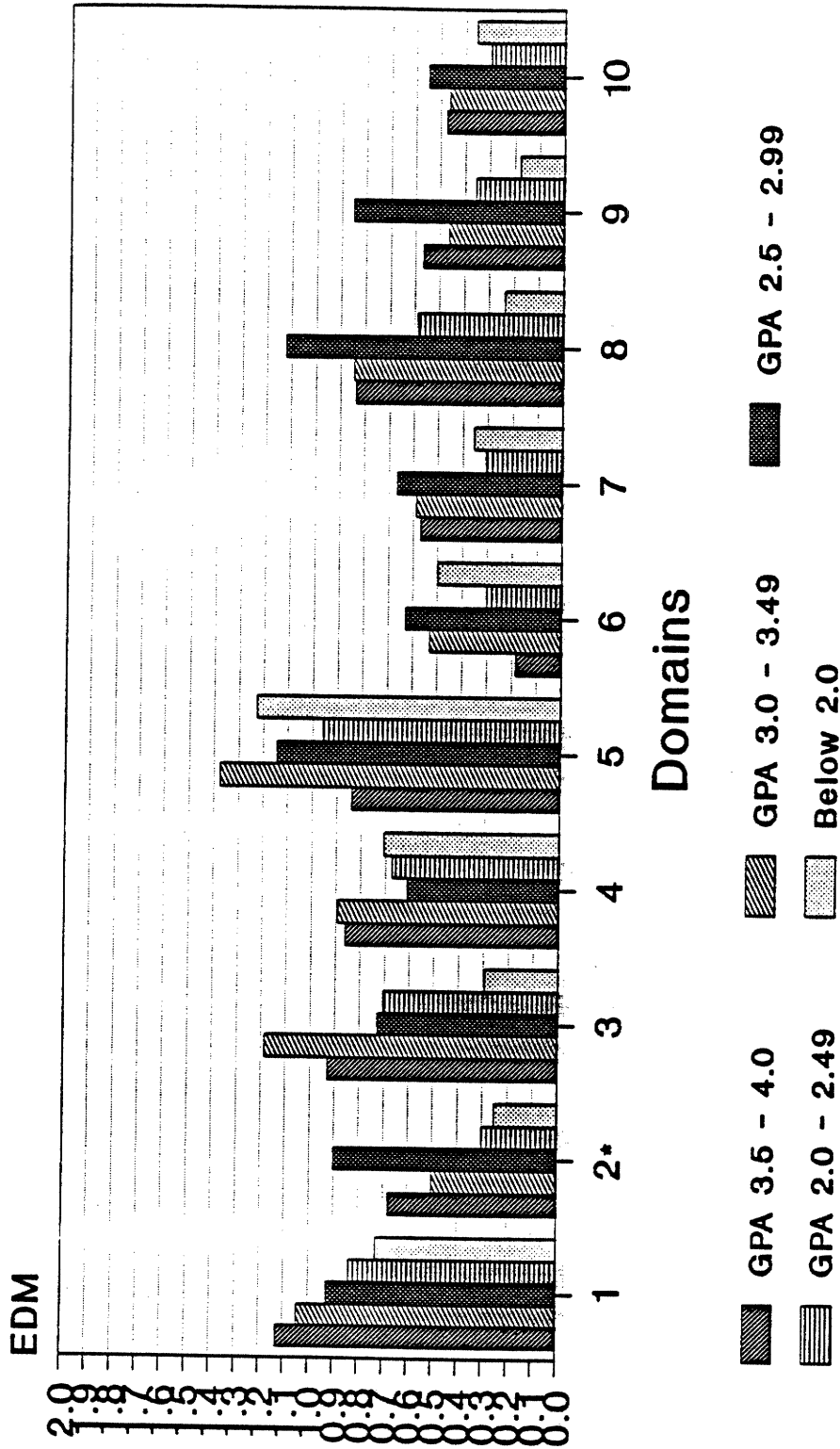
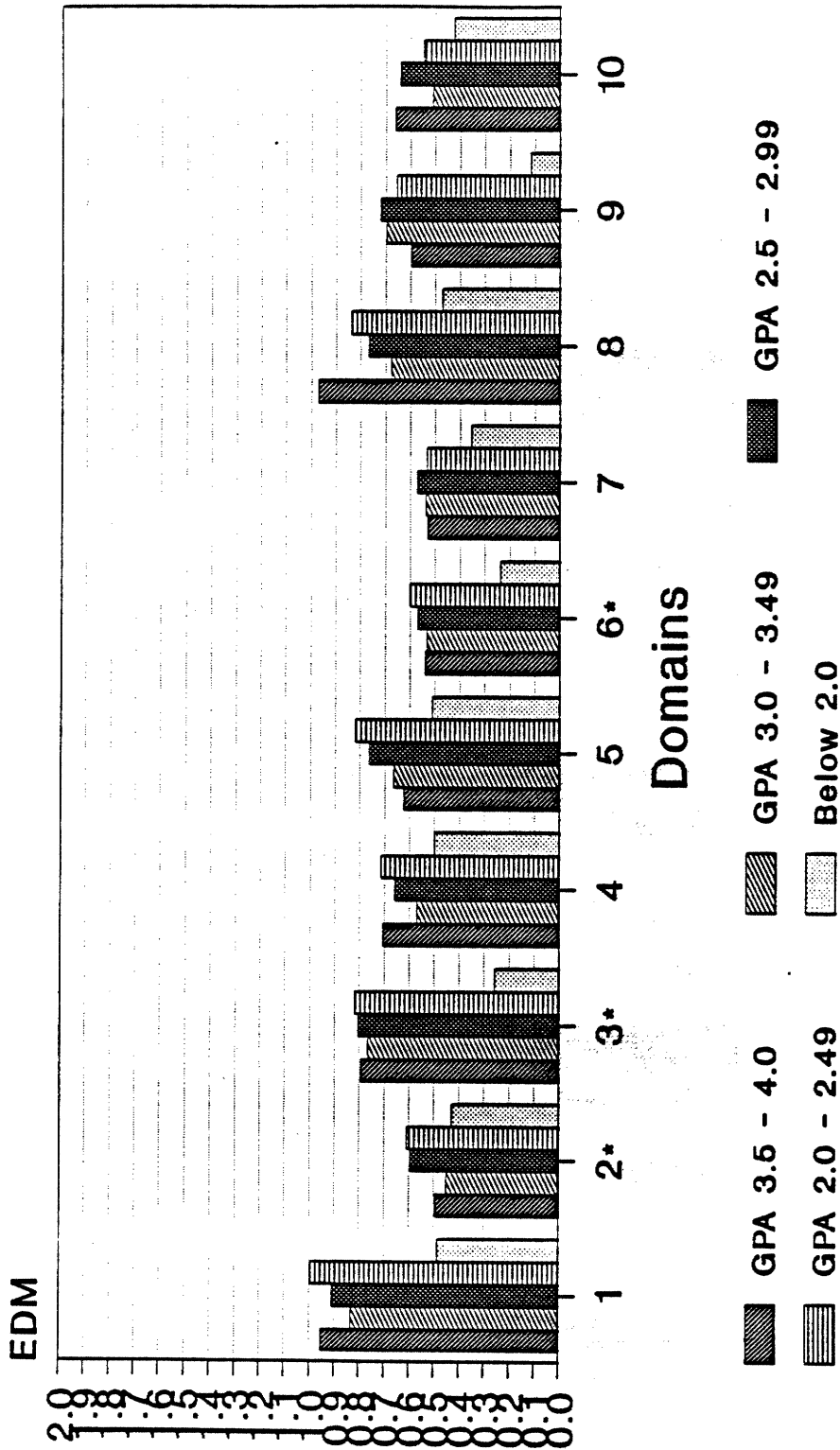


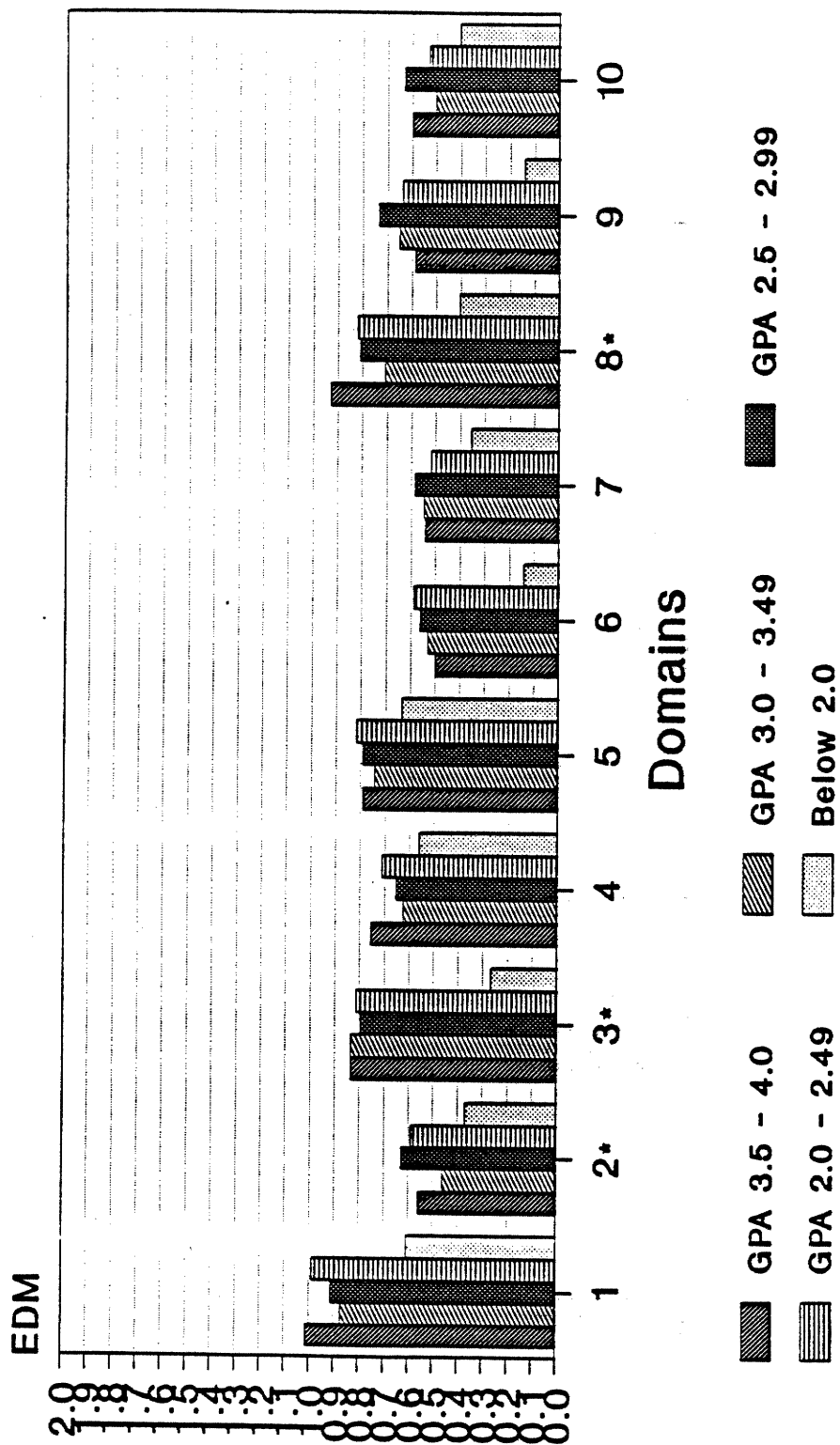
Fig. 14. EDM By Financial Aid for UNT, TWU, and Students Combined



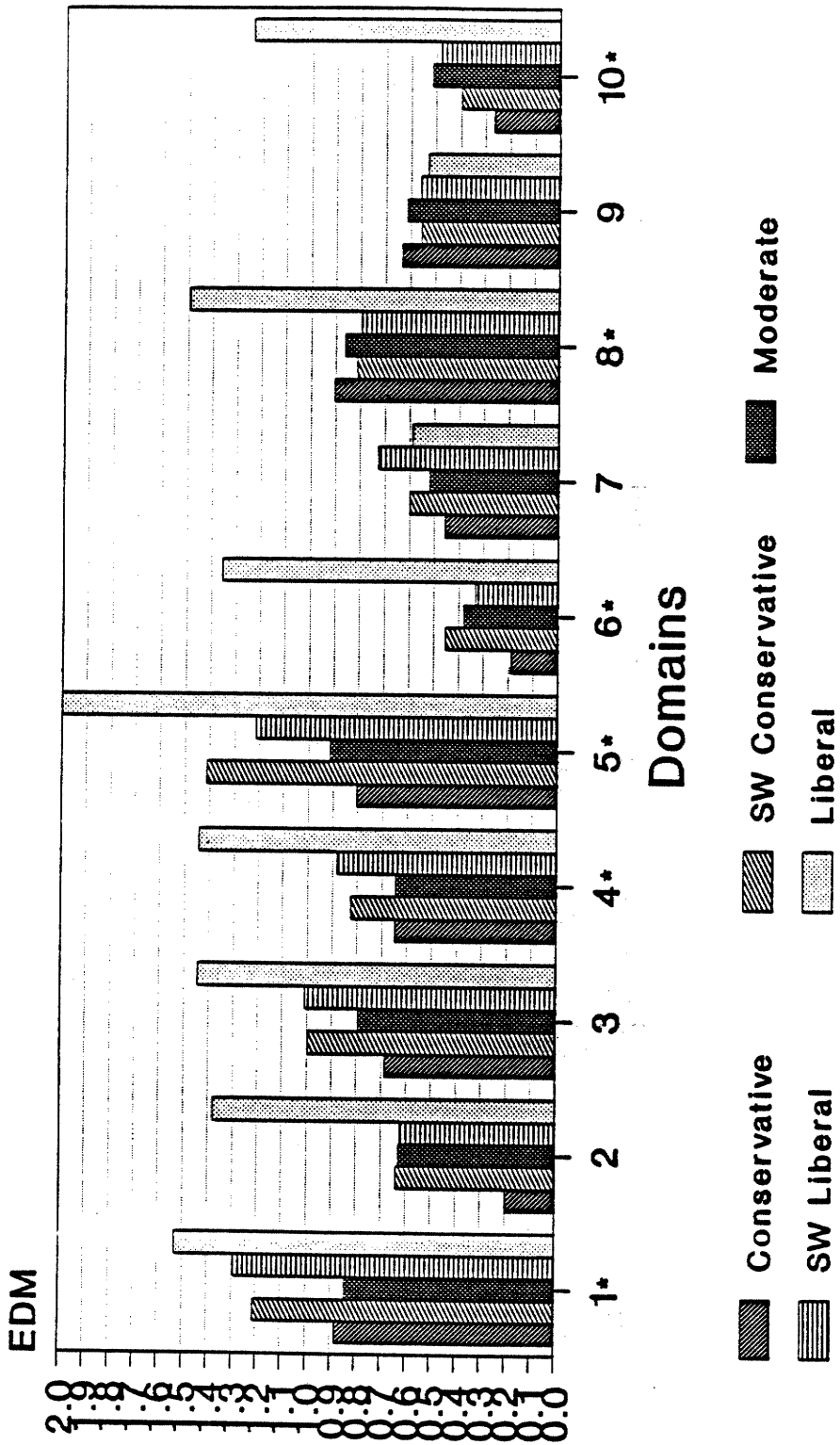
*Significant difference at .05 level
Fig. 15. EDM By Grade Point Average for TWU Students



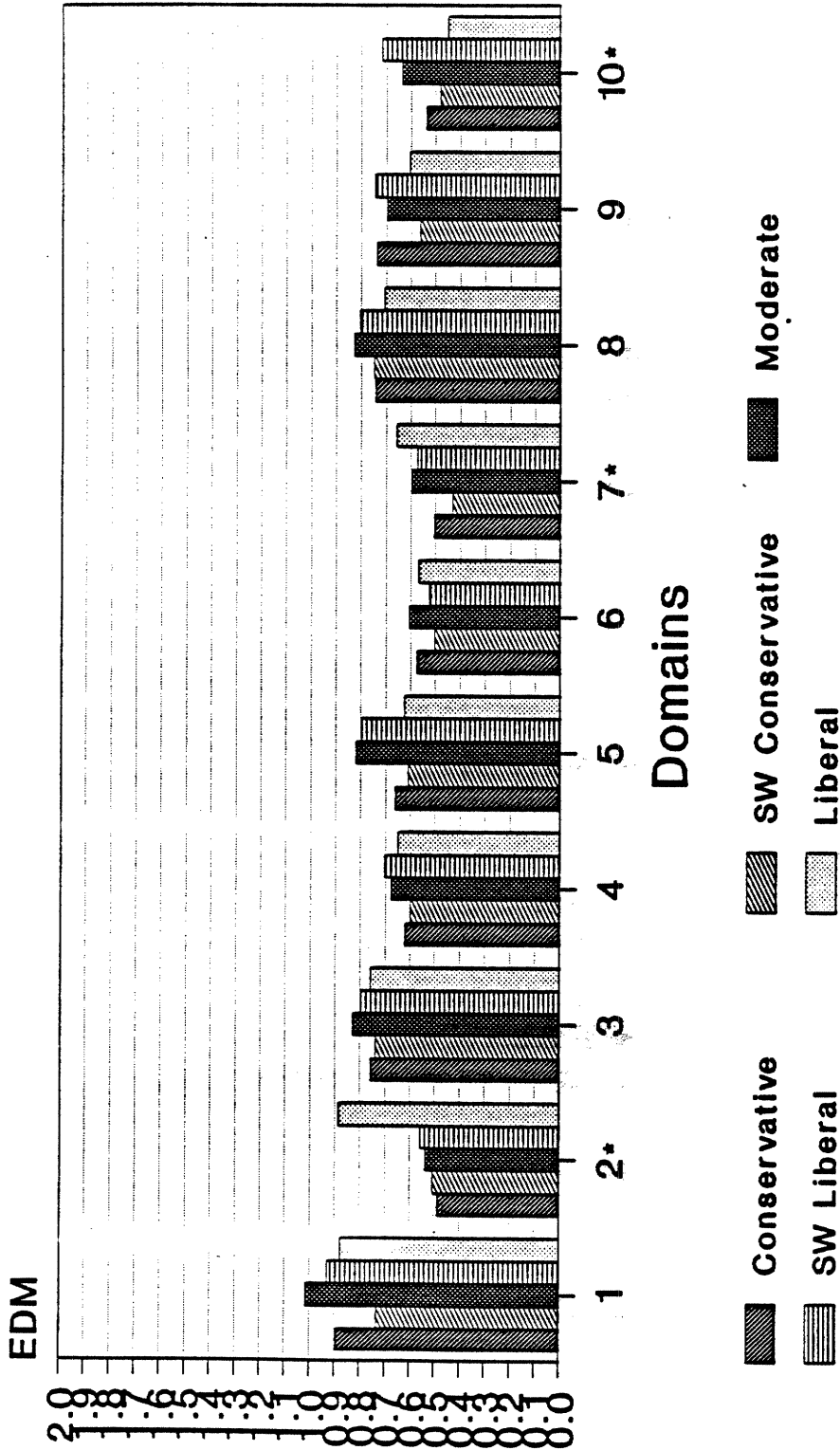
*Significant difference at .05 level
Fig. 16. EDM By Grade Point Average for UNT Students



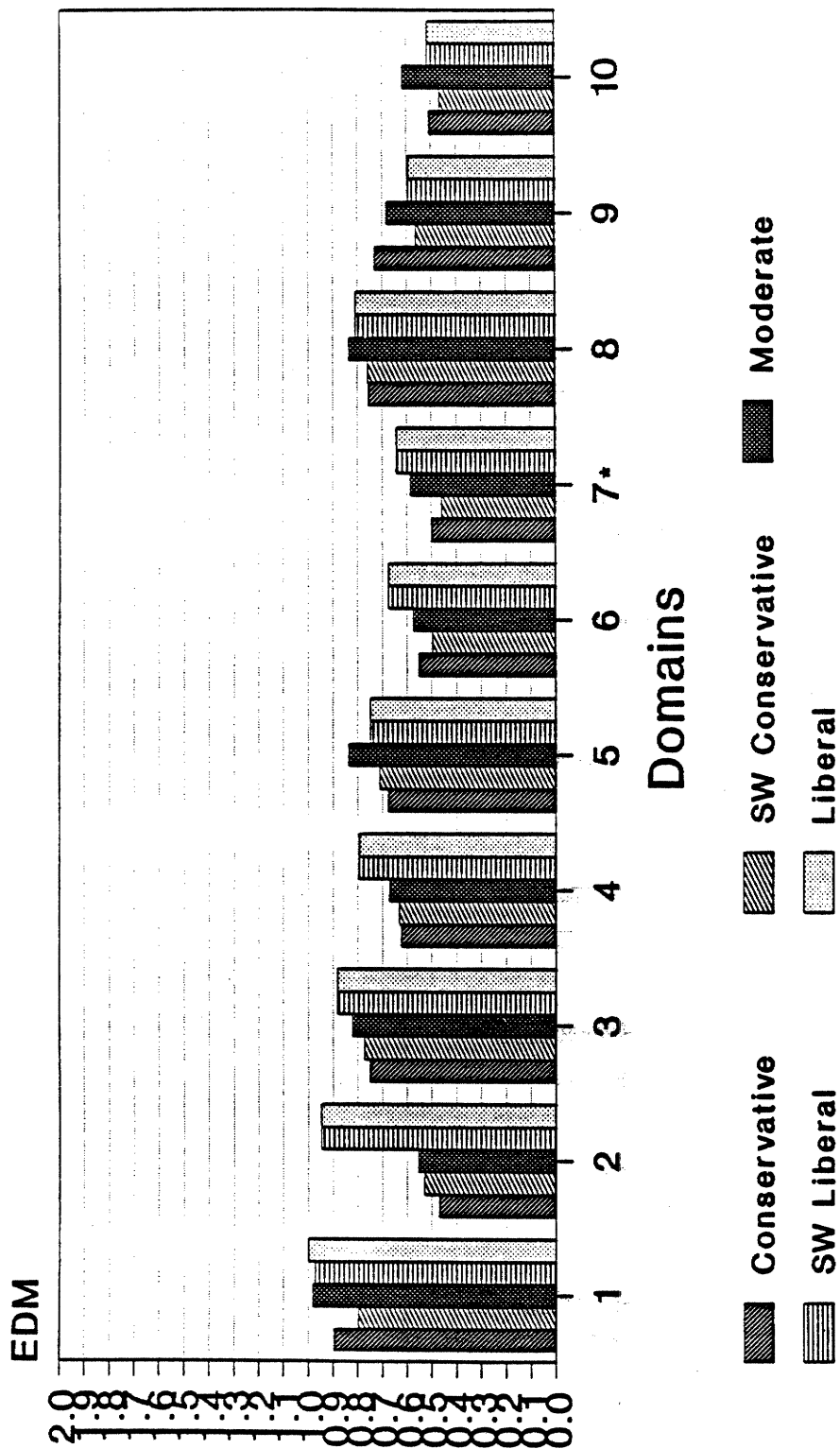
*Significant difference at .05 level
Fig. 17. EDM By Grade Point Average for UNT, TWU, and Students Combined



*Significant difference at .05 level
**Fig. 18. EDM By Political Description
 for TWU Students**



*Significant difference at .05 level
**Fig. 19. EDM By Political Description
 for UNT Students**



*Significant difference at .05 level
**Fig. 20. EDM By Political Description
 for UNT, TWU, and Students Combined**

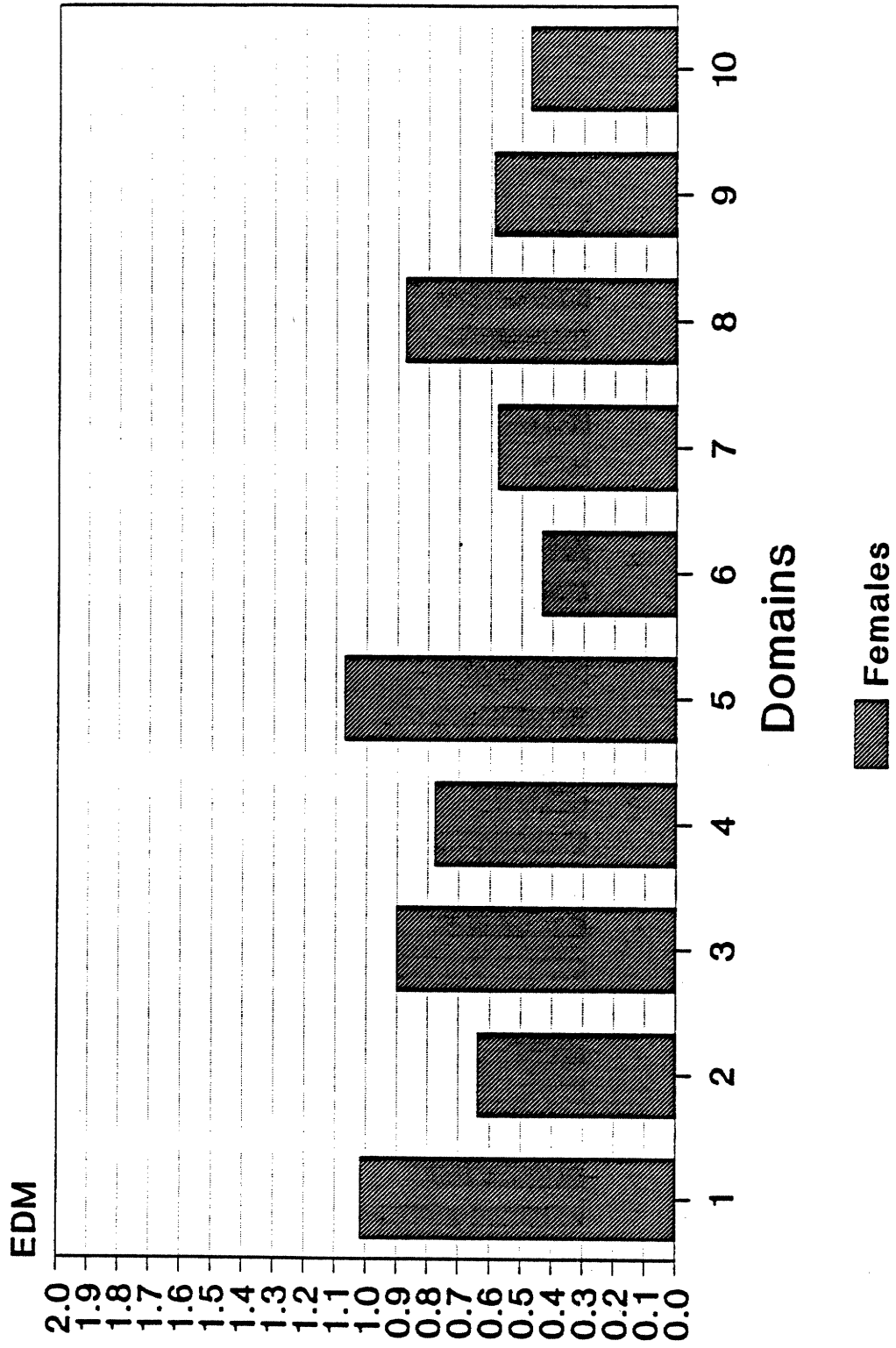
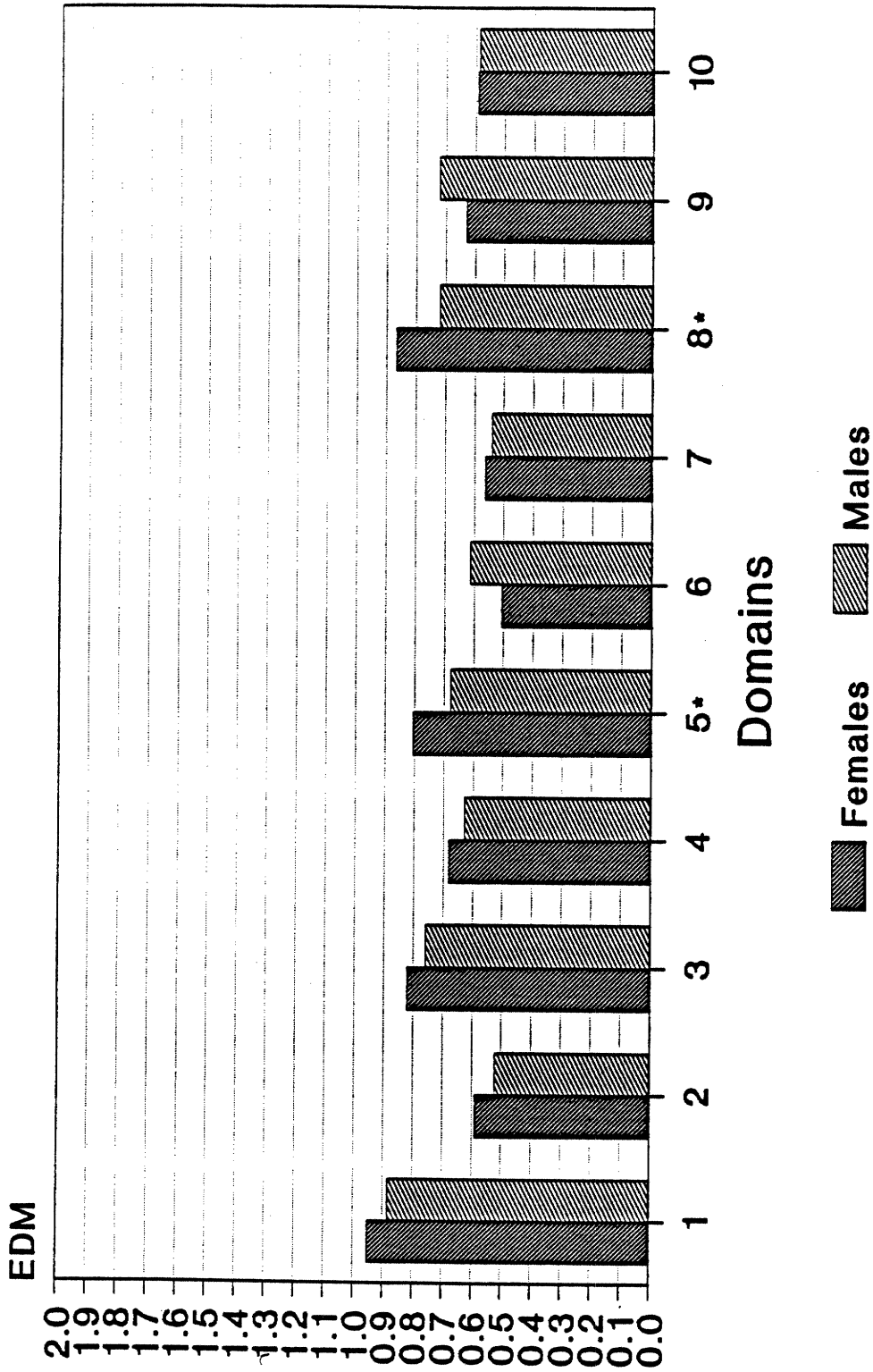
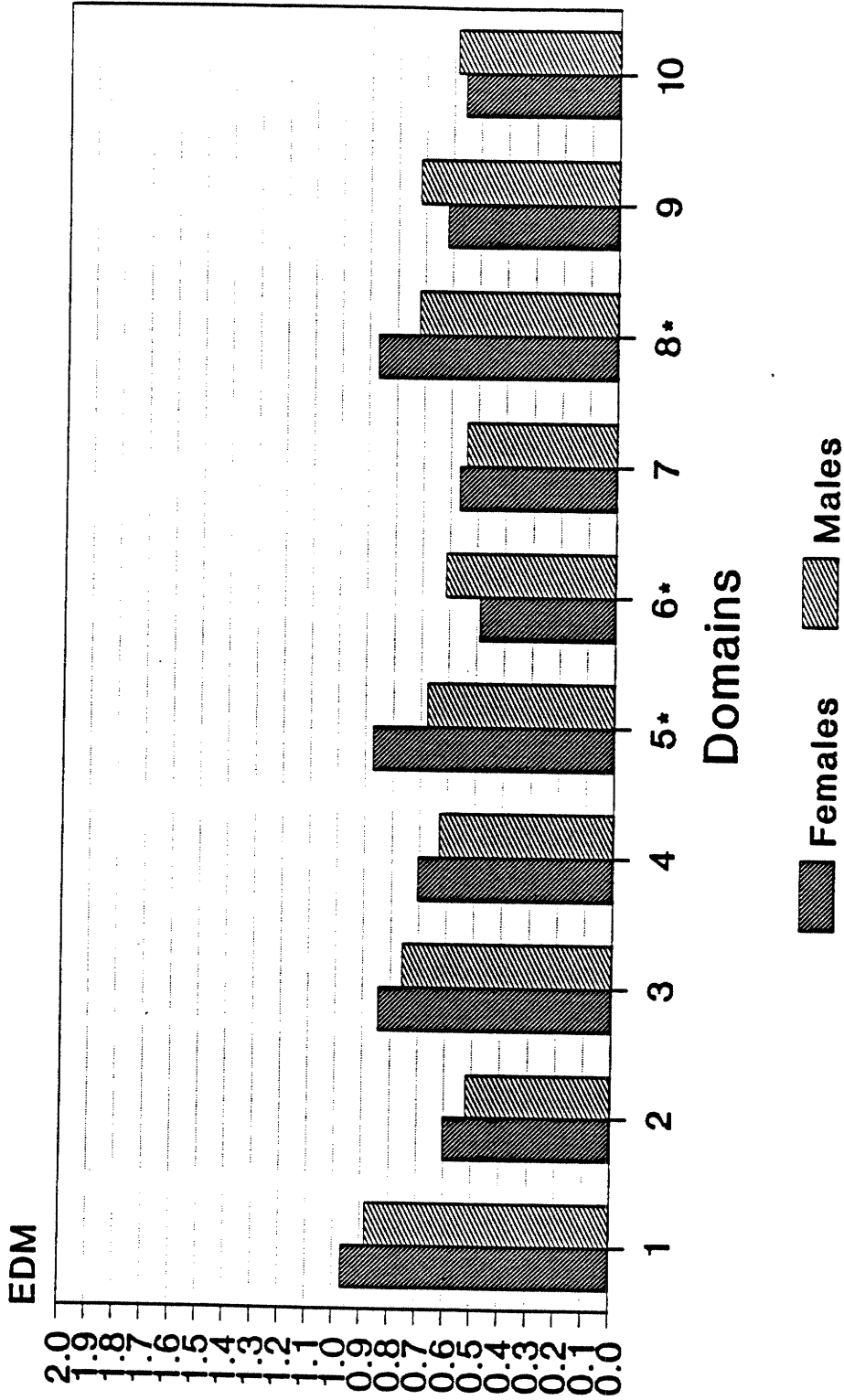


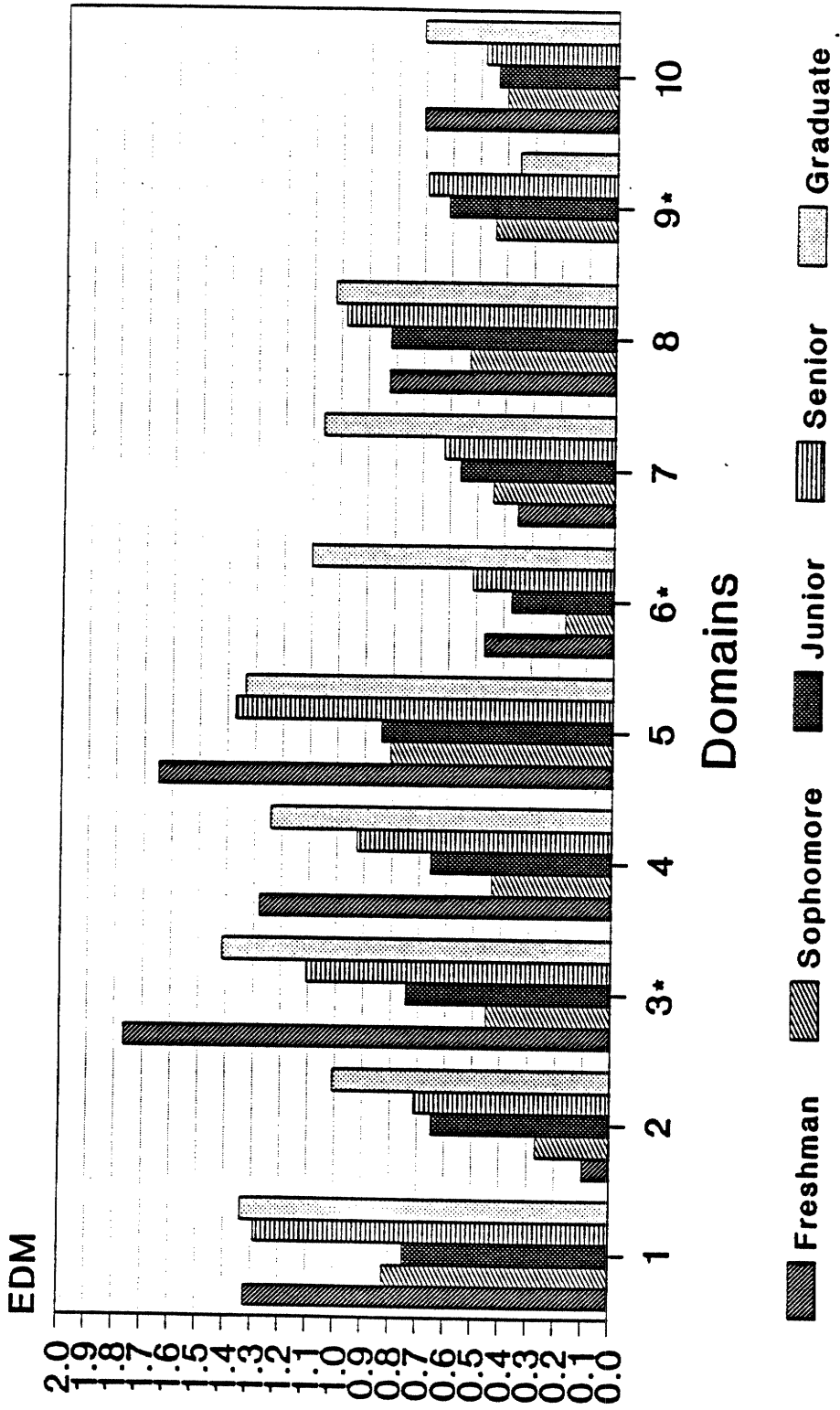
Fig. 21. EDM By Gender for TWU Students



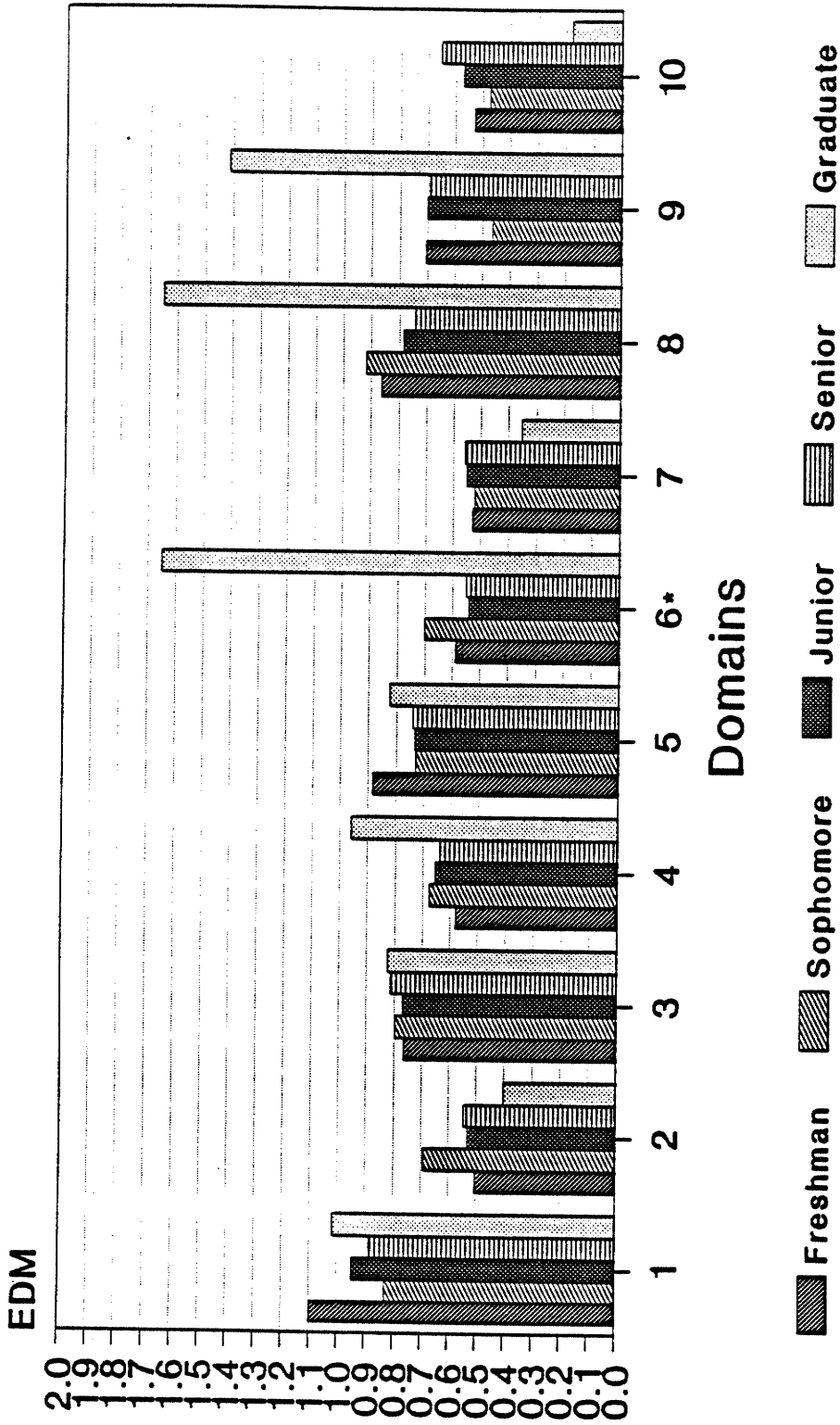
*Significant difference at .05 level
Fig. 22. EDM By Gender for UNT Students



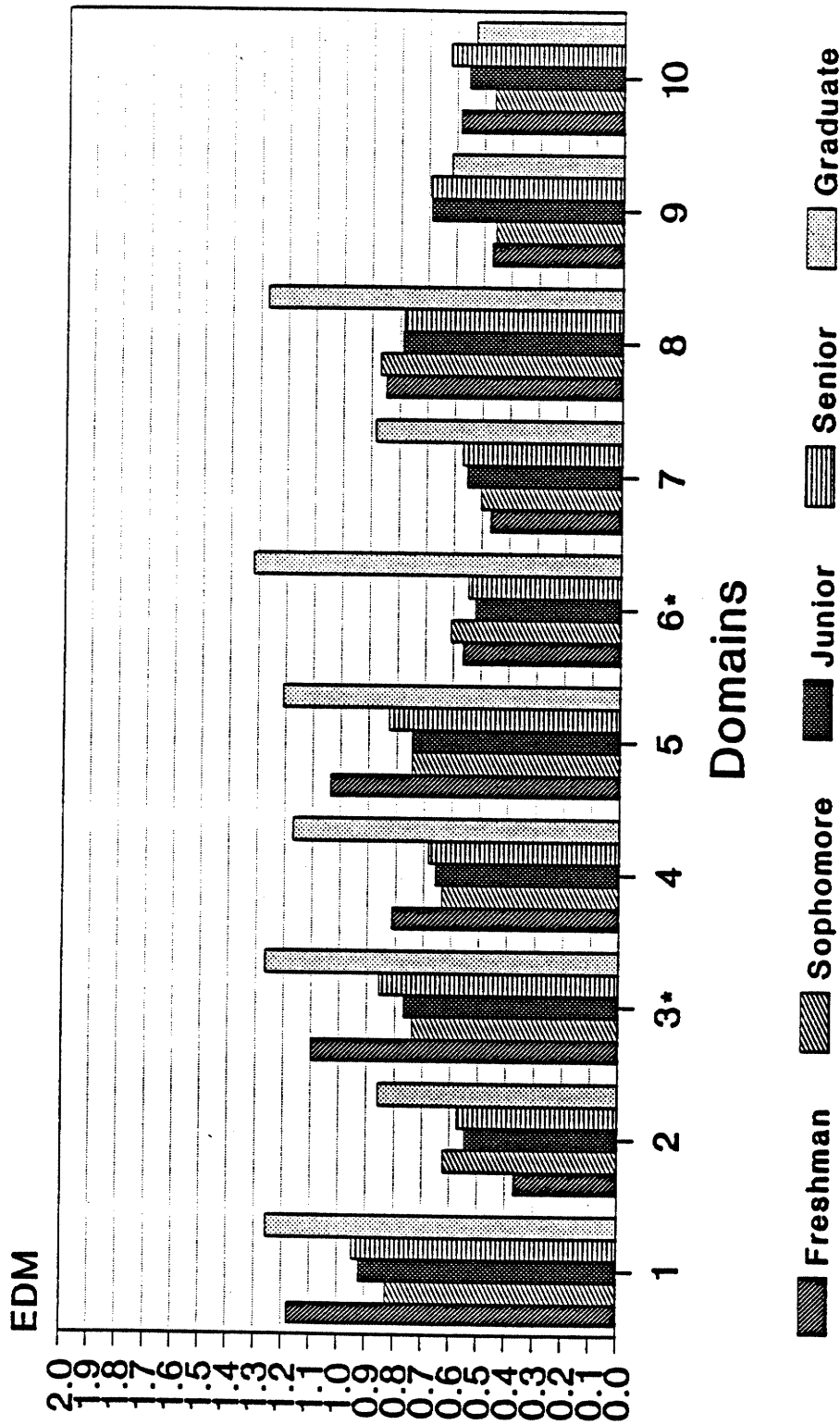
*Significant difference at .05 level
Fig. 23. EDM By Gender for UNT, TWU,
and Students Combined



*Significant difference at .05 level
Fig. 24. EDM By Classifications for TWU Students



*Significant difference at .05 level
**Fig. 25. EDM By Classifications for
 UNT Students**



*Significant difference at .05 level
Fig. 26. EDM By Classifications for UNT, TWU, and Students Combined

APPENDIX D
FREQUENCY INFORMATION FOR ALL SIXTY-SIX
ACTIVITY AREA ITEMS

The data presented in Appendices D, E, and F are consistent with the analysis by Stephenson (1990).

Stephenson, W. Robert. (1990). A study of student reaction to the use of mini tabs in introductory statistics course. The American Statistician, 44, 3 (August): 231-235.

Table 11.--Frequencies of Responses to Questionnaire Items

Group	Important						Done Well					
	1	2	3	4	5	Mean	1	2	3	4	5	Mean
1. Sponsor films, speakers, exhibitions and musical and dramatic productions for students and the community.												
TWU	2	-	18	51	34	4.10	-	9	26	51	14	3.70
UNT	6	16	111	265	134	3.95	4	58	209	192	30	3.38
COMB	8	16	129	316	168	3.97	4	67	235	243	44	3.43
2. Remove from teaching assignments faculty who consistently receive unsatisfactory student course ratings.												
TWU	1	2	9	34	60	4.42	15	33	31	5	-	2.31
UNT	4	22	54	178	271	4.30	86	170	161	28	11	2.36
COMB	5	24	63	212	331	4.32	101	203	192	33	11	2.35
3. Provide incentives and training to assist students in developing and practicing leadership skills.												
TWU	1	1	5	36	63	4.50	6	20	28	35	7	3.18
UNT	3	10	60	240	219	4.24	14	96	221	130	15	3.08
COMB	4	11	65	276	282	4.29	20	116	249	165	22	3.09
4. Conduct research under contracts funded by business, industry, foundations and government agencies to assist the training of graduate students and to keep faculty up-to-date.												
TWU	1	2	10	39	54	4.35	1	6	45	24	5	3.32
UNT	4	9	78	221	217	4.21	6	44	247	93	25	3.21
COMB	5	11	88	260	271	4.23	7	50	292	117	30	3.23

Table 11.--Continued

Group	Important					Done Well					Mean	
	1	2	3	4	5	1	2	3	4	5		
5. Employ trained students to assist in academic advising.												
TWU	3	14	30	33	25	3.60	8	16	36	9	2	2.73
UNT	11	48	118	213	142	3.80	28	86	199	101	27	3.03
COMB	14	62	148	246	167	3.77	36	102	235	110	29	2.99
6. Operate non-profit public television stations as a community and educational service.												
TWU	1	8	32	36	28	3.78	7	9	35	23	3	3.08
UNT	9	50	223	161	88	3.51	16	58	218	106	34	3.19
COMB	10	58	255	197	116	3.55	23	67	253	129	37	3.18
7. Offer selected undergraduate degree programs in business, humanities, the arts, behavioral and social sciences, physical sciences, mathematics and professional fields.												
TWU	-	-	2	33	70	4.65	3	3	15	44	34	4.04
UNT	3	4	39	161	326	4.51	7	18	76	225	172	4.08
COMB	3	4	41	194	396	4.53	10	21	91	269	206	4.07
8. Offer short courses and provide technical assistance to help students and the general public use the findings of university research in areas such as energy conservation and crop production.												
TWU	1	5	33	33	31	3.85	7	18	36	8	3	2.75
UNT	4	24	177	203	122	3.79	29	71	228	55	4	2.83
COMB	8	29	210	236	153	3.80	36	89	264	63	7	2.82

Table 11.--Continued

Group	Important						Done Well					
	1	2	3	4	5	Mean	1	2	3	4	5	Mean
9. Publish for sale scholarly books, pamphlets and reports to share the results of faculty and student research.												
TWU	-	1	31	48	25	3.92	3	13	48	11	1	2.92
UNT	7	22	179	229	95	3.72	25	72	248	47	8	2.85
COMB	7	23	210	277	120	3.75	28	85	296	58	9	2.86
10. Earn a profit by leasing university facilities such as football stadiums, activity centers, meeting rooms and exhibition space to private corporations.												
TWU	5	12	33	30	26	3.57	1	16	45	11	3	2.99
UNT	23	59	110	198	142	3.71	21	70	214	74	20	3.01
COMB	28	71	143	228	168	3.68	22	86	259	85	23	3.00
11. Provide counseling and related services to assist students in coping with problems such as depression, stress and alcohol and drug abuse.												
TWU	-	-	2	19	85	4.78	1	9	18	32	32	3.92
UNT	6	7	28	155	334	4.52	15	73	151	166	53	3.37
COMB	6	7	30	174	419	4.56	16	82	169	198	85	3.46
12. Conduct research in areas such as energy, agriculture, electronics, government, economics, and education to contribute to the future growth and wealth of the state and nation.												
TWU	1	-	11	39	52	4.37	2	8	45	23	5	3.25
UNT	5	13	81	201	233	4.21	12	53	249	108	18	3.15
COMB	6	13	92	240	285	4.23	14	61	294	131	23	3.17

Table 11.--Continued

Group	Important						Done Well					
	1	2	3	4	5	Mean	1	2	3	4	5	Mean
13. Accept international students who meet university admission standards.												
TWU	-	3	9	37	56	4.39	1	-	18	48	32	4.11
UNT	14	28	82	201	208	4.05	15	17	92	204	162	3.98
COMB	14	31	91	238	264	4.11	16	17	110	252	194	4.00
14. Provide academic transcripts which include information about honors, awards, and activities when requested by students.												
TWU	1	-	9	33	63	4.48	7	16	23	32	8	3.21
UNT	4	6	45	225	250	4.34	12	63	190	131	43	3.30
COMB	5	6	54	258	3.3	4.36	19	79	213	163	51	3.28
15. Include information about the use of computers in all undergraduate degree programs to develop computer literacy.												
TWU	-	-	5	28	73	4.64	3	25	34	25	6	3.06
UNT	-	7	36	187	303	4.47	23	84	144	179	57	3.33
COMB	-	7	41	215	376	4.50	26	109	178	204	63	3.29
16. Let non-profit organizations use university facilities such as football stadiums, activity centers and exhibition space if they pay all costs.												
TWU	-	5	28	42	28	3.90	-	8	52	12	2	3.11
UNT	15	48	125	192	151	3.78	11	36	261	68	21	3.13
COMB	15	53	153	234	179	3.80	11	44	313	80	23	3.13

Table 11.--Continued

Group	Important					Done Well					Mean	
	1	2	3	4	5	1	2	3	4	5		
17. Provide opportunities for students to be involved in important university decisions including those related to the budget.												
TWU	4	9	26	30	34	3.79	12	19	33	6	2	2.54
UNT	11	57	105	201	158	3.82	64	111	199	31	10	2.55
COMB	15	66	131	231	192	3.82	76	130	232	37	12	2.55
18. Conduct research and provide technical assistance to meet the special needs of Texas' ethnic and racial minorities.												
TWU	2	9	26	33	36	3.87	5	16	42	13	7	3.01
UNT	41	45	149	175	121	3.55	35	39	275	67	15	2.97
COMB	43	54	175	208	157	3.60	40	55	317	80	22	2.98
19. Require all undergraduate degree programs to include liberal education courses such as humanities, fine arts, social and behavioral sciences, physical sciences and mathematics.												
TWU	3	11	13	40	38	3.94	2	5	28	44	14	3.68
UNT	21	68	91	183	170	3.77	20	35	127	210	145	3.69
COMB	24	79	104	223	208	3.80	22	40	155	254	119	3.69
20. Provide current information to students about services offered by the university.												
TWU	0	0	0	29	76	4.72	5	21	21	30	25	3.48
UNT	-	3	14	190	32	4.57	30	108	123	190	63	3.29
COMB	-	3	14	219	402	4.60	35	129	144	220	88	3.32

Table 11.--Continued

Group	Important						Done Well					
	1	2	3	4	5	Mean	1	2	3	4	5	Mean
21. Sponsor competitive intercollegiate athletic programs for men and women.												
TWU	2	2	27	39	33	3.96	4	14	36	23	11	3.26
UNT	6	16	93	199	221	4.15	19	52	147	192	85	3.55
COMB	8	16	120	238	254	4.12	23	66	183	215	96	3.51
22. Provide advising and administrative services to help qualified students receive financial assistance.												
TWU	-	-	1	25	79	4.74	18	17	14	31	16	3.10
UNT	3	3	29	168	329	4.54	40	82	141	171	65	3.28
COMB	3	3	30	193	408	4.57	58	99	155	202	81	3.25
23. Actively recruit and offer financial aid to ethnic and racial minorities.												
TWU	7	8	27	24	38	3.75	8	12	30	25	13	3.26
UNT	46	65	149	148	123	3.45	28	50	241	99	38	3.15
COMB	53	73	176	172	161	3.50	36	62	271	124	51	3.17
24. Provide library hours until at least 2:00 a.m.												
TWU	5	12	26	25	36	3.72	18	15	29	10	6	2.63
UNT	14	50	90	138	240	4.02	116	112	129	36	18	2.34
COMB	19	62	116	163	276	3.97	134	127	158	46	24	2.38
25. Actively recruit and offer financial aid to students with academic and artistic talents.												
TWU	-	4	8	32	61	4.43	7	18	33	27	4	3.03
UNT	5	21	67	202	236	4.21	22	58	232	117	28	3.16
COMB	5	25	75	234	297	4.25	29	76	265	144	32	3.14

Table 11.--Continued

Group	Important						Done Well					
	1	2	3	4	5	Mean	1	2	3	4	5	Mean
26. Encourage advancement in the creative arts by sponsoring arts events, exhibitions and performances.												
TWU	1	1	14	35	54	4.37	3	12	30	36	14	3.48
UNT	5	11	119	237	157	4.00	9	34	233	150	48	3.41
COMB	5	12	133	272	211	4.06	12	46	263	186	62	3.42
27. Award degrees only to students who pass a standard test in writing skills to ensure that graduates can write clearly and effectively.												
TWU	8	11	9	34	43	3.89	4	10	25	32	21	3.61
UNT	46	91	114	164	117	3.40	32	63	236	58	21	2.93
COMB	54	102	123	198	160	3.48	36	73	261	90	42	3.06
28. Provide limited use of university resources such as secretarial help, computer time and copy services to faculty who serve as paid consultants to business and industry, government and community agencies.												
TWU	15	12	37	20	21	3.19	6	5	49	14	1	2.99
UNT	56	82	218	103	68	3.09	17	49	273	46	10	2.96
COMB	71	94	255	123	89	3.10	23	54	322	60	11	2.96
29. Change the name of this university to better reflect the characteristics specific to this institution.												
TWU	59	19	16	5	7	1.89	11	5	19	9	12	3.11
UNT	230	128	104	33	34	2.08	57	30	153	50	74	3.15
COMB	289	147	120	38	41	2.05	68	35	172	59	86	3.14

Table 11.--Continued

Group	Important						Done Well					
	1	2	3	4	5	Mean	1	2	3	4	5	Mean
30. Contract with private corporations to provide on-campus services currently run by universities such as bookstores, copying and food services.												
TWU	16	13	29	23	25	3.26	12	8	40	13	6	2.91
UNT	53	72	144	147	116	3.38	35	59	199	83	52	3.14
COMB	69	85	173	170	141	3.36	47	67	239	96	58	3.10
31. Make special efforts to recruit and retain qualified women faculty.												
TWU	2	2	16	36	49	4.22	1	7	24	44	16	3.73
UNT	22	50	159	196	104	3.58	9	38	246	138	23	3.28
COMB	24	52	175	232	153	3.69	10	45	270	185	39	3.36
32. Provide career and job placement services to university students.												
TWU	-	-	-	23	82	4.78	6	18	18	36	18	3.44
UNT	-	1	16	153	361	4.65	21	62	173	171	60	3.38
COMB	-	1	16	176	443	4.67	27	80	191	207	78	3.39
33. Provide adequate space for students to study on campus.												
TWU	-	1	2	31	71	4.64	5	14	19	47	17	3.56
UNT	1	4	21	170	336	4.57	30	101	109	192	74	3.35
COMB	1	5	23	201	407	4.58	35	115	128	239	91	3.39
34. Reward faculty for good teaching.												
TWU	1	1	5	33	65	4.52	6	13	40	18	5	3.04
UNT	4	5	55	182	284	4.39	26	76	233	79	16	2.96
COMB	5	6	60	215	349	4.41	32	89	273	97	21	2.97

Table 11.--Continued

Group	Important						Done Well					
	1	2	3	4	5	Mean	1	2	3	4	5	Mean
35. Sponsor recreational athletic programs for all students.												
TWU	2	2	27	40	34	3.97	6	9	39	25	10	3.27
UNT	10	19	97	222	184	4.04	19	45	210	165	41	3.34
COMB	12	21	124	262	218	4.03	25	54	249	190	51	3.33
36. Offer small classes (25 or less).												
TWU	1	4	15	32	53	4.26	4	20	24	31	16	3.37
UNT	6	21	90	187	227	4.15	110	153	146	68	13	2.43
COMB	7	25	105	219	280	4.16	114	173	170	99	29	2.58
37. Require students who are not residents of Texas to pay the full costs of their education.												
TWU	7	11	32	25	29	3.56	4	11	39	19	10	3.24
UNT	54	86	160	133	97	3.25	30	43	206	100	50	3.33
COMB	61	97	192	158	126	3.30	34	54	245	119	60	3.23
38. Sponsor research to attract and keep well qualified faculty and students.												
TWU	1	1	10	36	56	4.39	-	14	38	23	4	3.22
UNT	4	9	66	215	237	4.27	16	58	224	129	14	3.15
COMB	5	10	76	251	293	4.29	16	72	262	152	18	3.16
39. Offer remedial instruction in reading, writing and mathematics to students who need help with these skills.												
TWU	1	1	30	30	73	4.65	4	15	35	26	13	3.31
UNT	13	22	49	182	264	4.25	16	67	199	122	46	3.26
COMB	14	23	49	212	337	4.31	20	82	234	148	59	3.27

Table 11.--Continued

Group	Important						Done Well					
	1	2	3	4	5	Mean	1	2	3	4	5	Mean
40. Provide instructor evaluations to help students select courses.												
TWU	1	4	5	30	64	4.46	15	32	17	11	8	2.58
UNT	8	12	57	185	269	4.31	95	125	138	69	24	2.56
COMB	9	16	62	215	333	4.33	110	157	155	80	32	2.56
41. Sponsor an effective student government to serve all students.												
TWU	1	1	17	37	49	4.26	7	15	39	18	12	3.14
UNT	7	13	97	200	213	4.13	41	84	198	106	40	3.04
COMB	8	14	114	237	262	4.15	48	99	237	124	52	3.06
42. Provide high quality modern laboratories to support student and faculty research.												
TWU	1	1	11	29	64	4.45	5	12	42	18	6	3.10
UNT	-	10	71	213	235	4.27	24	93	212	113	24	3.04
COMB	1	11	82	242	299	4.30	29	105	254	131	30	3.05
43. Offer selected courses by telecommunication, radio or correspondence.												
TWU	3	7	17	39	38	3.98	16	18	28	10	4	2.58
UNT	20	45	142	202	123	3.68	22	56	242	83	19	3.05
COMB	23	52	159	241	161	3.73	38	74	270	93	23	2.98
44. Reward faculty for good research.												
TWU	1	2	16	41	44	4.20	4	7	45	15	3	3.08
UNT	4	11	102	236	177	4.08	8	33	280	88	13	3.15
COMB	5	13	118	277	221	4.10	12	40	325	103	16	3.14

Table 11.--Continued

Group	Important						Done Well					
	1	2	3	4	5	Mean	1	2	3	4	5	Mean
45. Provide tenure (reasonable assurance of continuing employment) to faculty who maintain professional standards approved by the Board of Regents.												
TWU	1	3	19	40	4	4.12	1	5	45	22	5	3.32
UNT	13	23	91	244	161	3.97	10	27	225	133	35	3.32
COMB	14	26	110	284	202	4.00	11	32	270	155	30	3.32
46. Provide library resources and services to support the educational program.												
TWU	-	2	2	29	71	4.62	2	8	22	40	24	3.79
UNT	-	4	41	215	271	4.42	7	39	165	202	78	3.62
COMB	-	6	43	244	342	4.45	9	47	187	242	102	3.65
47. Provide programs to acquaint students with the campus and to assist them in adjusting to the collegiate environment.												
TWU	-	2	4	41	58	4.48	5	10	31	37	16	3.49
UNT	5	10	55	240	222	4.25	20	96	165	164	51	3.26
COMB	5	12	59	281	280	4.29	25	106	196	201	67	3.30
48. Offer non-credit courses and workshops for the general public in areas such as health, recreation and hobbies.												
TWU	1	4	17	39	45	4.16	5	18	42	8	2	2.79
UNT	17	57	98	221	139	3.77	28	84	205	87	20	2.97
COMB	18	61	115	260	184	3.83	33	102	247	95	22	2.94

Table 11.--Continued

Group	Important						Done Well					
	1	2	3	4	5	Mean	1	2	3	4	5	Mean
49. Make special efforts to recruit and retain qualified minority faculty.												
TWU	2	10	27	36	29	3.77	4	18	42	12	4	2.92
UNT	53	73	161	144	101	3.31	46	52	265	63	20	2.91
COMB	55	83	188	180	130	3.39	50	70	307	75	24	2.91
50. Sponsor student publications such as the campus newspaper and literary magazines to inform the campus community and to provide examples of student literary work.												
TWU	-	-	7	50	48	4.39	4	17	22	36	21	3.53
UNT	1	9	62	237	224	4.26	10	36	133	226	94	3.72
COMB	1	9	69	287	272	4.29	14	53	155	262	115	3.69
51. Provide special assistance such as Braille texts, tutoring services, or sign language to physically handicapped students.												
TWU	-	-	3	35	67	4.61	2	12	39	14	13	3.30
UNT	-	6	33	205	288	4.46	19	56	208	115	24	3.16
COMB	-	6	36	240	355	4.48	21	68	247	129	37	3.19
52. Provide students immediate medical care and continuing education on health-related problems.												
TWU	-	-	10	35	60	4.48	5	23	34	21	12	3.13
UNT	3	4	53	202	269	4.37	27	71	186	148	46	3.24
COMB	3	4	63	237	329	4.39	32	94	220	169	58	3.22

Table 11.--Continued

Group	Important						Done Well					
	1	2	3	4	5	Mean	1	2	3	4	5	Mean
53. Offer selected courses and degree programs at off-campus locations or branch campuses.												
TWU	1	1	13	38	51	4.32	5	15	35	20	20	3.37
UNT	14	37	108	204	167	3.89	37	95	202	64	17	2.83
COMB	15	38	121	242	218	3.96	42	110	237	84	37	2.93
54. Include information about the achievements and needs of Texas' ethnic and racial minorities as part of all undergraduate degree programs.												
TWU	10	13	40	20	22	3.30	3	16	51	12	2	2.93
UNT	81	82	182	117	65	3.01	44	58	256	30	10	2.76
COMB	71	95	222	137	87	3.05	47	74	307	42	12	2.79
55. Have regular members of the faculty closely supervise all classes taught by teaching assistants.												
TWU	-	7	23	26	49	4.11	9	27	38	8	3	2.64
UNT	14	45	78	201	195	3.97	78	134	179	46	5	2.47
COMB	14	52	101	227	244	4.00	87	161	217	54	8	2.50
56. Make special efforts to recruit and retain recognized scholars and researchers for university faculties.												
TWU	-	-	11	41	52	4.39	-	17	39	18	3	3.09
UNT	3	11	93	225	119	1.14	26	67	248	79	6	2.93
COMB	3	11	104	266	251	4.18	26	84	287	97	9	2.96

Table 11.--Continued

Group	Important						Done Well					
	1	2	3	4	5	Mean	1	2	3	4	5	Mean
57. Limit enrollment to students who graduated in the upper half of their high school class or who have above average scores on standardized aptitude tests.												
TWU	32	32	24	11	6	2.30	11	8	42	7	1	2.70
UNT	93	148	104	108	80	2.88	31	82	240	68	11	2.87
COMB	125	180	128	119	86	2.78	42	90	282	75	12	2.85
58. Provide counseling and health services to help students avoid or cope with unwanted pregnancies.												
TWU	1	3	14	34	53	4.29	6	17	35	12	7	2.96
UNT	14	17	82	219	200	4.08	33	73	250	48	17	2.86
COMB	15	20	96	253	253	4.11	39	90	285	60	24	2.88
59. Offer courses and workshops in areas such as study skills and academic survival skills.												
TWU	-	1	8	39	57	4.45	6	19	35	22	12	3.16
UNT	3	10	82	227	211	4.19	21	77	219	111	28	3.11
COMB	3	11	90	266	268	4.23	27	96	254	133	40	3.11
60. Offer selected master's and doctoral degree programs in business, engineering, education, architecture, social work, public administration, agriculture and forestry.												
TWU	-	-	15	31	39	4.42	1	15	29	29	11	3.40
UNT	-	4	49	211	268	4.40	12	27	161	183	80	3.63
COMB	-	2	64	242	327	4.40	13	42	190	212	91	3.59

Table 11.--Continued

Group	Important						Done Well					
	1	2	3	4	5	Mean	1	2	3	4	5	Mean
61. Admit to regular university courses high school students who are recommended by their principals.												
TWU	7	16	20	35	27	3.56	5	11	45	8	1	2.84
UNT	41	95	119	181	95	3.37	22	40	207	113	16	3.15
COMB	48	111	139	216	122	3.40	27	51	252	121	17	3.11
62. Develop programs in veterinary medicine, dentistry, optometry, and other professional areas not currently available at any Texas university.												
TWU	1	4	17	34	48	4.19	14	14	31	8	4	2.63
UNT	8	25	100	190	208	4.06	75	97	157	26	7	2.43
COMB	9	29	117	224	256	4.09	89	111	188	34	11	2.46
63. Offer selected master's and doctoral degree programs in the humanities, fine arts, social and behavioral sciences, physical sciences and mathematics.												
TWU	-	1	8	40	56	4.44	3	6	37	25	14	3.48
UNT	4	11	83	224	209	4.17	9	25	205	145	68	3.53
COMB	4	12	91	264	265	4.22	12	31	242	170	82	3.52
64. Actively recruit and offer financial aid to students with athletic talents.												
TWU	11	14	43	24	11	3.10	3	6	53	12	3	3.08
UNT	35	66	142	176	112	3.50	22	54	191	133	62	3.34
COMB	46	80	185	200	123	3.43	25	60	244	145	65	3.31

Table 11.--Continued

Group	Important						Done Well					
	1	2	3	4	5	Mean	1	2	3	4	5	Mean
65. Provide academic advisement to assist students in achieving educational goals.												
TWU	-	-	3	26	75	4.69	8	18	28	27	12	3.18
UNT	1	2	36	193	298	4.48	29	84	178	163	43	3.22
COMB	1	2	39	219	373	4.52	37	102	206	190	55	3.21
66. Provide special tutoring and advisement to ethnic and racial minority students to help them get through their educational programs.												
TWU	7	8	27	31	32	3.70	9	10	49	9	5	2.89
UNT	57	61	136	158	118	3.41	25	53	269	66	17	2.99
COMB	64	69	163	189	150	3.46	34	63	318	75	22	2.98
Note: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree.												

APPENDIX E

MEANS, STANDARD DEVIATIONS, AND RANKS FOR ALL SIXTY-SIX
ACTIVITY AREA ITEMS BY INSTITUTION, FOR STUDENT
PERCEPTIONS OF THE IMPORTANCE OF EACH ITEM
AND THE DEGREE TO WHICH THE
ACTIVITY IS DONE WELL

Table 12.--Means, Standard Deviations, and Ranks for Importance and Done Well for all Sixty-Six Items in the Survey

Item Group	Importance			Done Well		
	Mean	Rank	SD	Mean	Rank	SD
1. TWU	4.10	41	.81	3.52	4	1.13
UNT	3.95	41	.83	3.13	10	1.17
COMB	3.97	40	.82	3.19	9	1.17
2. TWU	4.42	23	.80	1.87	61	1.18
UNT	4.30	16	.87	2.03	63	1.20
COMB	4.32	16	.86	2.20	63	1.19
3. TWU	4.50	13	.72	2.93	18	1.32
UNT	4.24	22	.77	2.75	24	1.24
COMB	4.29	21	.77	2.78	24	1.25
4. TWU	4.35	29	.81	2.59	32	1.54
UNT	4.21	23	.81	2.52	38	1.48
COMB	4.23	25	.81	2.53	36	1.49
5. TWU	3.60	58	1.08	1.88	60	1.48
UNT	3.80	44	1.00	2.53	36	1.43
COMB	3.77	48	1.01	2.42	40	1.46
6. TWU	3.78	53	.96	2.26	45	1.60
UNT	3.51	54	.93	2.59	35	1.49
COMB	3.55	54	.94	2.54	35	1.51
7. TWU	4.65	6	.52	3.85	2	2.27
UNT	4.51	6	.71	3.81	1	1.32
COMB	4.53	6	.69	3.82	1	1.31
8. TWU	3.85	51	.94	1.89	59	1.50
UNT	3.79	45	.88	2.05	62	1.43
COMB	3.80	45	.89	2.03	62	1.45
9. TWU	3.92	47	.76	2.11	54	1.45
UNT	3.72	49	.85	2.14	59	1.41
COMB	3.75	49	.84	2.14	58	1.41
10. TWU	3.57	59	1.12	2.18	49	1.48
UNT	3.71	50	1.11	2.25	53	1.51
COMB	3.68	52	1.11	2.24	55	1.50

Table 12.--Continued

Item Group	Importance			Done Well			
	Mean	Rank	SD	Mean	Rank	SD	
11.	TWU	4.78	2	.46	3.47	6	1.58
	UNT	4.52	5	.76	2.91	20	1.48
	COMB	4.56	5	.72	3.00	16	1.51
12.	TWU	4.37	28	.75	2.57	3	1.51
	UNT	4.21	24	.85	2.60	34	1.39
	COMB	4.23	26	.84	2.60	31	1.41
13.	TWU	4.39	26	.77	3.88	1	1.21
	UNT	4.05	35	.99	3.66	2	1.43
	COMB	4.11	33	.97	3.70	2	1.40
14.	TWU	4.48	16	.73	2.65	31	1.58
	UNT	4.34	14	.74	2.72	25	1.51
	COMB	4.36	14	.74	2.71	26	1.52
15.	TWU	4.64	9	.57	2.74	27	1.31
	UNT	4.47	8	.68	3.05	14	1.36
	COMB	4.50	8	.67	3.00	15	1.36
16.	TWU	3.90	48	.86	2.19	48	1.51
	UNT	3.78	46	1.04	2.35	49	1.51
	COMB	3.80	46	1.02	2.32	50	1.51
17.	TWU	3.79	52	1.12	1.76	65	1.42
	UNT	3.82	43	1.04	1.99	64	1.33
	COMB	3.82	43	1.05	1.95	64	1.35
18.	TWU	3.87	50	1.04	2.40	38	1.49
	UNT	3.55	53	1.16	2.41	44	1.39
	COMB	3.60	53	1.14	2.41	41	1.41
19.	TWU	3.94	46	1.08	3.26	12	1.43
	UNT	3.77	48	1.14	3.44	4	1.35
	COMB	3.80	47	1.13	3.41	4	1.36
20.	TWU	4.72	4	.45	3.38	8	1.33
	UNT	4.57	2	.58	3.18	8	1.24
	COMB	4.60	2	.56	3.21	7	1.26

Table 12.--Continued

Item	Group	Importance			Done Well		
		Mean	Rank	SD	Mean	Rank	SD
21.	TWU	3.96	45	.92	2.73	28	1.53
	UNT	4.15	28	.88	3.30	6	1.34
	COMB	4.12	31	.89	3.20	8	1.39
22.	TWU	4.74	3	.46	2.84	20	1.59
	UNT	4.54	4	.68	3.08	12	1.35
	COMB	4.57	4	.65	3.04	14	1.39
23.	TWU	3.75	55	1.22	2.73	29	1.60
	UNT	3.45	56	1.22	2.71	26	1.40
	COMB	3.50	55	1.22	2.71	25	1.44
24.	TWU	3.72	56	1.19	1.97	57	1.54
	UNT	4.02	37	1.11	1.81	65	1.38
	COMB	3.97	41	1.13	1.83	65	1.41
25.	TWU	4.43	21	.79	2.57	33	1.43
	UNT	4.21	25	.88	2.71	27	1.38
	COMB	4.25	23	.87	2.69	27	1.39
26.	TWU	4.32	32	.86	3.15	14	1.40
	UNT	4.00	38	.83	3.04	15	1.32
	COMB	4.06	36	.84	3.06	13	1.33
27.	TWU	3.89	49	1.27	3.16	13	1.57
	UNT	3.40	58	1.24	2.26	52	1.47
	COMB	3.48	56	1.26	2.41	42	1.52
28.	TWU	3.19	64	1.29	2.13	53	1.51
	UNT	3.09	63	1.13	2.21	55	1.43
	COMB	3.10	63	1.16	2.20	56	1.44
29.	TWU	1.89	66	1.22	1.69	66	1.86
	UNT	2.08	66	1.21	2.16	58	1.81
	COMB	2.05	66	1.21	2.09	60	1.82
30.	TWU	3.26	63	1.35	2.21	47	1.57
	UNT	3.38	59	1.24	2.53	37	1.57
	COMB	3.36	61	1.26	2.48	38	1.57

Table 12.--Continued

Item Group	Importance			Done Well			
	Mean	Rank	SD	Mean	Rank	SD	
31.	TWU	4.22	35	.91	3.30	11	1.45
	UNT	3.58	52	1.04	2.81	22	1.36
	COMB	3.69	51	1.04	2.89	21	1.38
32.	TWU	4.78	1	.42	3.14	15	1.48
	UNT	4.65	1	.55	3.10	11	1.34
	COMB	4.67	1	.53	3.11	10	1.37
33.	TWU	4.64	8	.57	3.46	7	1.22
	T	4.57	3	.63	3.20	7	1.31
	COMB	4.58	3	.62	3.24	6	1.30
34.	TWU	4.52	12	.72	2.39	40	1.51
	UNT	4.39	12	.77	2.39	45	1.40
	COMB	4.41	11	.76	2.39	45	1.42
35.	TWU	3.97	44	.91	2.80	25	1.49
	UNT	4.04	36	.92	3.02	16	1.31
	COMB	4.03	37	.92	2.98	17	1.34
36.	TWU	4.26	34	.91	3.05	16	1.46
	UNT	4.15	29	.92	2.24	54	1.21
	COMB	4.16	29	.91	2.37	46	1.29
37.	TWU	3.56	60	1.20	2.56	34	1.59
	UNT	3.25	62	1.22	2.61	32	1.57
	COMB	3.30	62	1.22	2.60	33	1.57
38.	TWU	4.39	27	.78	2.42	39	1.56
	UNT	4.27	18	.80	2.61	31	1.40
	COMB	4.29	22	.80	2.58	34	1.43
39.	TWU	4.65	7	.64	2.93	19	1.44
	UNT	4.25	21	.96	2.76	23	1.46
	COMB	4.31	17	.92	2.79	23	1.46
40.	TWU	4.46	17	.84	2.04	55	1.51
	UNT	4.31	15	.86	2.17	57	1.40
	COMB	4.33	15	.86	2.15	57	1.41

Table 12.--Continued

Item Group	Importance			Done Well			
	Mean	Rank	SD	Mean	Rank	SD	
41.	TWU	4.26	33	.83	2.72	30	1.48
	UNT	4.13	31	.89	2.69	28	1.39
	COMB	4.15	30	.88	2.69	28	1.40
42.	TWU	4.45	19	.79	2.47	36	1.51
	UNT	4.27	17	.76	2.67	29	1.33
	COMB	4.30	18	.77	2.63	30	1.36
43.	TWU	3.98	43	1.03	1.87	62	1.50
	UNT	3.68	51	1.04	2.42	43	1.45
	COMB	3.73	50	1.04	2.33	49	1.47
44.	TWU	4.20	36	.84	2.17	50	1.57
	UNT	4.08	32	.82	2.50	40	1.41
	COMB	4.10	34	.82	2.45	39	1.45
45.	TWU	4.12	40	.88	2.47	37	1.59
	UNT	3.97	39	.93	2.62	33	1.52
	COMB	4.00	38	.92	2.60	32	1.54
46.	TWU	4.62	10	.63	3.50	5	1.39
	UNT	4.42	10	.67	3.34	5	1.29
	COMB	4.45	10	.66	3.37	5	1.31
47.	TWU	4.48	14	.67	3.30	10	1.30
	UNT	4.25	20	.79	3.05	13	1.27
	COMB	4.29	20	.77	3.09	11	1.27
48.	TWU	4.16	38	.90	2.01	56	1.44
	UNT	3.77	47	1.05	2.37	46	1.45
	COMB	3.83	44	1.04	2.31	51	1.45
49.	TWU	3.77	54	1.03	2.23	46	1.47
	UNT	3.31	61	1.21	2.43	41	1.36
	COMB	3.39	60	1.20	2.40	43	1.38
50.	TWU	4.39	24	.61	3.36	9	1.33
	UNT	4.26	19	.74	3.48	3	1.27
	COMB	4.29	19	.72	3.46	3	1.28

Table 12.--Continued

Item Group	Importance			Done Well			
	Mean	Rank	SD	Mean	Rank	SD	
51.	TWU	4.61	11	.90	2.01	56	1.44
	UNT	4.46	9	.66	2.51	39	1.51
	COMB	4.48	9	.65	2.51	37	1.53
52.	TWU	4.48	15	.67	2.83	21	1.38
	UNT	4.37	13	.74	2.91	19	1.37
	COMB	4.39	13	.73	2.90	20	1.37
53.	TWU	4.32	31	.80	3.05	17	1.47
	UNT	3.89	42	1.01	2.21	56	1.43
	COMB	3.96	42	.99	2.35	47	1.47
54.	TWU	3.30	62	1.21	2.34	41	1.36
	UNT	3.01	64	1.22	2.06	60	1.40
	COMB	3.05	64	1.22	2.11	59	1.40
55.	TWU	4.11	39	.97	2.13	52	1.00
	UNT	3.97	40	1.04	2.05	61	1.26
	COMB	4.00	39	1.03	2.06	61	1.27
56.	TWU	4.39	25	.67	2.29	42	1.52
	UNT	4.14	30	.82	2.35	48	1.37
	COMB	4.18	28	.80	2.34	48	1.40
57.	TWU	2.30	65	1.18	1.77	64	1.48
	UNT	2.88	65	1.33	2.33	50	1.36
	COMB	2.78	65	1.32	2.24	54	1.40
58.	TWU	4.29	29	.87	2.17	51	1.58
	UNT	4.08	33	.94	2.27	51	1.40
	COMB	4.11	32	.93	2.25	53	1.43
59.	TWU	4.45	18	0.68	2.83	22	1.42
	UNT	4.19	26	.80	2.66	30	1.38
	COMB	4.23	24	.79	2.68	29	1.39
60.	TWU	4.42	22	.73	2.75	26	1.60
	UNT	4.40	11	.69	3.15	9	1.50
	COMB	4.40	12	.69	3.09	12	1.52

Table 12.--Continued

Item Group	Importance			Done Well			
	Mean	Rank	SD	Mean	Rank	SD	
61.	TWU	3.56	61	1.22	1.90	58	1.49
	UNT	3.37	60	1.19	2.36	47	1.56
	COMB	3.40	59	1.19	2.29	52	1.56
62.	TWU	4.19	37	.91	1.78	63	1.53
	UNT	4.06	34	.95	1.65	66	1.38
	COMB	4.09	35	.94	1.67	66	1.41
63.	TWU	4.44	20	.68	2.82	24	1.63
	UNT	4.17	27	.82	2.99	18	1.51
	COMB	4.22	27	.80	2.96	19	1.53
64.	TWU	3.10	42	1.11	2.26	44	1.51
	UNT	3.50	55	1.15	2.90	21	1.47
	COMB	3.43	58	1.15	2.80	19	1.53
65.	TWU	4.69	5	.52	2.82	23	1.49
	UNT	4.48	7	.66	3.00	17	1.27
	COMB	4.52	7	.64	2.97	18	1.30
66.	TWU	3.70	57	1.18	2.26	43	1.47
	UNT	3.41	57	1.25	2.42	42	1.39
	COMB	3.46	57	1.24	2.39	44	1.40

Note: If two items have the same means but different standard deviations, the one with the smaller standard deviation is listed first.

*The ranks given for the important to do means are computed so that the highest mean rank is listed first. There are several tied means. In these cases, the one with the smaller standard deviation is listed first.

APPENDIX F

MEANS AND OTHER t -TEST INFORMATION FOR ALL SIXTY-SIX
ACTIVITY AREA ITEMS BY INSTITUTION, FOR STUDENT
PERCEPTIONS OF THE IMPORTANCE OF EACH ITEM
AND THE DEGREE TO WHICH THE
ACTIVITY IS DONE WELL

Table 13.--Item t-Test for Independent Samples of the University of North Texas and Texas Woman's University

Item	Group	Importance				Done Well					
		\bar{N}	Mean	\bar{t}	df	Prob.	\bar{N}	Mean	\bar{t}	df	Prob.
1.	TWU	105	4.0952	1.66	635	.097	105	3.5238	3.17	635	.002*
	UNT	532	3.9492				532	3.1297			
2.	TWU	106	4.4151	1.21	633	.226	531	2.0264	-1.26	633	.209
	UNT	529	4.3043				531	2.0264			
3.	TWU	106	4.5000	3.16	636	.002*	104	2.9327	1.35	634	.178
	UNT	532	4.2444				532	2.7519			
4.	TWU	106	4.3491	1.66	633	.097	104	2.5865	.43	631	.669
	UNT	529	4.2060				529	2.5180			
5.	TWU	105	3.6000	-1.87	635	.061	103	1.8835	-4.14	630	.001*
	UNT	532	3.8026				529	2.5255			
6.	TWU	105	3.7810				105	2.2571			

Table 13.--Continued

Item Group	Importance				Done Well					
	<u>N</u>	<u>Mean</u>	<u>t</u>	df	Prob.	<u>N</u>	<u>Mean</u>	<u>t</u>	df	Prob.
UNT	531	3.5066	2.74	634	.006*	532	2.5940	-2.09	635	.037*
7. TWU	105	4.6476	1.93	636	.055	104	3.8462	.25	635	.800
UNT	533	4.5066				533	3.8105			
8. TWU	103	3.8544	.70	632	.484	105	1.8857	-1.09	636	.275
UNT	531	3.7872				533	2.0544			
9. TWU	105	3.9238	2.29	635	.023*	105	2.1143	-.20	635	.840
UNT	532	3.7199				532	2.1447			
10. TWU	106	3.5660	-1.21	636	.227	104	2.1827	-.44	634	.660
UNT	532	3.7086				532	2.2538			
11. TWU	106	4.7830	3.50	6.34	.001*	104	3.4712	3.52	633	.001*
UNT	530	4.5170				531	2.9058			

Table 13.--Continued

Item	Group	Importance				Done Well					
		<u>N</u>	Mean	<u>t</u>	df	Prob.	<u>N</u>	Mean	<u>t</u>	df	Prob.
12.	TWU	105	4.3689	1.78	634	.076	105	2.5714	-.20	636	.838
	UNT	533	4.2083				533	2.6023			
13.	TWU	105	4.3905	3.29	636	.001*	533	3.6604	1.45	636	.148
	UNT	533	4.0525				533	3.6604			
14.	TWU	106	4.4811	1.77	634	.078	104	2.6538	-.41	634	.685
	UNT	530	4.3415				532	2.7199			
15.	TWU	106	4.6415	2.36	637	.019*	104	2.7404	-2.15	634	.032*
	UNT	533	4.4747				532	3.0526			
16.	TWU	103	3.9029	1.09	632	.275	105	2.1905	-.96	633	.337
	UNT	531	3.7834				530	2.3453			
17.	TWU	103	3.7864	-.33	633	.745	104	1.7596	-1.57	634	.117

Table 13.--Continued

Item	Group	Importance				Done Well					
		N	Mean	t	df	Prob.	N	Mean	t	df	Prob.
	UNT	532	3.8233				532	1.9868			
18.	TWU	106	3.8679	2.66	635	.008*	104	2.4038	-.03	634	.979
	UNT	531	3.5461				532	2.4079			
19.	TWU	105	3.9424	1.39	636	.165	105	3.2571	-1.29	636	.197
	UNT	533	3.7749				533	3.4447			
20.	TWU	105	4.7238	2.52	636	.012*	105	3.3810	1.53	635	.128
	UNT	533	4.5741				532	3.1767			
21.	TWU	103	3.9612	-2.02	634	.044	105	2.7333	-3.84	636	.001*
	UNT	533	4.1538				533	3.2964			
22.	TWU	105	4.7429	2.99	635	.003*	105	2.8381	-1.60	635	.111
	UNT	532	4.5357				532	3.0752			

Table 13.--Continued

Item	Group	Importance				Done Well					
		\bar{N}	Mean	\bar{t}	df	Prob.	\bar{N}	Mean	\bar{t}	df	Prob.
23.	TWU	104	3.7500	2.33	633	.020*	105	2.7333	.18	634	.015*
	UNT	531	3.4463				531	2.7062			
24.	TWU	104	3.7212	-2.44	634	.015*	104	1.9712	1.09	634	.276
	UNT	532	4.0150				532	1.8064			
25.	TWU	105	4.4286	2.36	634	.019*	105	2.5714	-.94	635	.348
	UNT	531	4.2109				532	2.7105			
26.	TWU	105	4.3238	3.60	632	.001*	105	3.1524	.77	634	.444
	UNT	529	4.0019				531	3.0433			
27.	TWU	105	3.8857	3.62	635	.001*	105	3.1619	5.69	635	.001*
	UNT	532	3.4041				532	2.2613			
28.	TWU	105	3.1905	.85	630	.397	105	2.1333	-.48	632	.629

Table 13.--Continued

Item	Group	Importance				Done Well					
		\bar{N}	Mean	\bar{t}	df	Prob.	\bar{N}	Mean	\bar{t}	df	Prob.
	UNT	527	3.0854				529	2.2079			
29.	TWU	106	1.8868	-1.50	633	.135	103	1.6893	-2.42	631	.016*
	UNT	529	2.0794				530	2.1623			
30.	TWU	106	3.2642	-.85	636	.397	104	2.2115	-1.88	633	.060
	UNT	532	3.3778				531	3.5838			
31.	TWU	105	4.2190	5.85	634	.001*	104	3.2981	3.34	633	.001*
	UNT	531	3.5838				531	2.8060			
32.	TWU	105	4.7810	2.39	634	.017*	105	3.1429	.31	635	.757
	UNT	531	4.6460				532	3.0977			
33.	TWU	105	4.6381	1.01	635	.313	105	3.4571	1.89	634	.060
	UNT	532	4.5714				531	3.1959			

Table 13.--Continued

Item	Group	Importance				Done Well					
		\bar{N}	Mean	\bar{t}	df	Prob.	\bar{N}	Mean	\bar{t}	df	Prob.
34.	TWU	105	4.5238	1.64	633	.103	104	2.3942	.01	634	.993
	UNT	530	4.3906				532	2.3929			
35.	TWU	105	3.9714	-.66	635	.511	104	2.7981	-1.55	633	.122
	UNT	532	4.0357				531	3.0207			
36.	TWU	105	4.2571	1.15	634	.251	105	3.0476	6.03	635	.001*
	UNT	531	4.1450				532	2.2387			
37.	TWU	104	3.5577	2.35	632	.019*	105	2.5619	-.27	634	.791
	UNT	530	3.2509				531	2.6064			
38.	TWU	104	4.3942	1.51	633	.132	105	2.4190	-1.27	635	.205
	UNT	531	4.2655				532	2.6128			
39.	TWU	105	4.6476				105	2.9333			

Table 13.--Continued

Item	Group	Importance				Done Well					
		\bar{N}	Mean	\bar{t}	df	Prob.	\bar{N}	Mean	\bar{t}	df	Prob.
	UNT	530	4.2491	4.09	633	.001*	531	2.7589	1.12	634	.264
40.	TWU	104	4.4615	1.66	6.33	.098	105	2.0381	-.88	635	.379
	UNT	531	4.3089				532	2.1711			
41.	TWU	105	4.2571	1.35	633	.176	105	2.7238	.24	634	.808
	UNT	530	4.1302				531	2.6874			
42.	TWU	106	4.4528	2.21	633	.027*	104	2.4712	-1.34	634	.182
	UNT	529	4.2722				532	2.6654			
43.	TWU	104	3.9808	2.69	634	.007*	105	1.8667	-3.55	635	.001*
	UNT	532	3.6823				532	2.4192			
44.	TWU	104	4.2019	1.41	632	.159	105	2.1714	-2.15	635	.032*
	UNT	530	4.0774				532	2.5019			

Table 13.--Continued

Item	Group	Importance				Done Well					
		<u>N</u>	<u>Mean</u>	<u>t</u>	df	Prob.	<u>N</u>	<u>Mean</u>	<u>t</u>	df	Prob.
45.	TWU	104	4.1250	1.55	634	.122	105	2.4667	-.96	635	.337
	UNT	532	3.9718				532	2.6241			
46.	TWU	104	4.6250	2.92	633	.004*	104	3.5000	1.13	634	.261
	UNT	531	4.4181				532	3.3421			
47.	TWU	105	4.4762	2.78	635	.006*	105	3.2952	1.78	633	.075
	UNT	532	4.2481				530	3.0528			
48.	TWU	106	4.1604	3.60	636	.001*	104	2.0096	-2.33	633	.020*
	UNT	532	3.7669				531	2.3710			
49.	TWU	104	3.7692	3.59	634	.001*	105	2.2286	-1.39	636	.166
	UNT	532	3.3139				533	2.4334			
50.	TWU	105	4.3905	1.63	636	.103	105	3.3619	-.86	636	.387

Table 13.--Continued

Item	Group	Importance				Done Well					
		N	Mean	t	df	Prob.	N	Mean	t	df	Prob.
	UNT	533	4.2645			533	3.4803				
51.	TWU	105	4.6095	2.21	635	.027*	105	2.5143	.03	635	.976
	UNT	532	4.4568				532	2.5094			
52.	TWU	105	4.4762	1.30	634	.193	105	2.8286	-.57	635	.570
	UNT	531	4.3748				532	2.9117			
53.	TWU	104	4.3173	4.03	632	.001*	105	3.0476	5.47	635	.001*
	UNT	530	3.8925				532	2.2068			
54.	TWU	105	3.2952	2.22	630	.028*	105	2.3429	1.87	635	.062
	UNT	527	3.0057				532	2.0639			
55.	TWU	105	4.1143	1.29	636	.197	105	2.1333	.62	636	.535
	UNT	533	3.9719				533	2.0488			

Table 13.--Continued

Item	Group	Importance				Done Well					
		N	Mean	<u>t</u>	df	Prob.	N	Mean	<u>t</u>	df	Prob.
56.	TWU	104	4.3942	2.97	633	.003*	104	2.2885	-.41	634	.684
	UNT	531	4.1412				532	2.3496			
57.	TWU	105	2.3048	-4.10	636	.001*	105	1.7714	-3.78	636	.001*
	UNT	533	2.8762				533	2.3302			
58.	TWU	105	4.2857	2.08	635	.038*	105	2.1714	-.63	635	.531
	UNT	532	4.0789				532	2.2669			
59.	TWU	105	4.4476	3.11	636	.002*	105	2.8286	1.16	636	.246
	UNT	533	4.1876				533	2.6567			
60.	TWU	105	4.4190	.30	635	.762	105	2.7524	-2.48	636	.013*
	UNT	532	4.3966				533	3.1538			
61.	TWU	105	3.5619				105	1.8952			

Table 13.--Continued

Item	Group	Importance				Done Well					
		<u>N</u>	<u>Mean</u>	<u>t</u>	<u>df</u>	<u>Prob.</u>	<u>N</u>	<u>Mean</u>	<u>t</u>	<u>df</u>	<u>Prob.</u>
	UNT	531	3.3653	-.54	634	.124	531	2.3635	-2.83	634	.005*
62.	TWU	104	4.1923	1.27	633	.205	105	1.7810	.88	636	.381
	UNT	531	4.0640				533	1.6492			
63.	TWU	105	4.4381	3.11	634	.002*	105	2.8190	-1.05	636	.293
	UNT	531	4.1733				533	2.9906			
64.	TWU	103	3.0971	-3.25	632	.001*	105	2.2571	-4.10	635	.001*
	UNT	531	3.4972				532	2.9041			
65.	TWU	104	4.6923	3.09	632	.002*	105	2.8190	-1.33	635	.185
	UNT	530	4.4811				532	3.0038			
66.	TWU	105	3.6952	2.13	633	.034*	105	2.2571	-1.08	635	.280

Table 13.--Continued

Item Group	Importance			Done Well				
	<u>N</u>	Mean	<u>t</u> df	Prob.	<u>N</u>	Mean	<u>t</u> df	Prob.
UNT	530	3.4132			532	2.4192		

Note: N varies due to missing data.

*Denotes significance at .05 level.

APPENDIX G

**DOCUMENTS RELATIVE TO THE RESEARCH PROCEDURE AND
A COPY OF THE QUESTIONNAIRE USED IN THE STUDY**

Mr. Felix U. Kamuche, Jr.
Doctoral Candidate
University of North Texas
Post Office Box 8466
UNT Station
Denton, TX 76203-0466

July 31, 1990

Dr. Richard C. Richardson, Jr., Director
National Center for Post-Secondary
Governance and Finance
College of Education
Arizona State University
Tempe, AZ 85287-1611

RE: Request for original instruments

Dear Dr. Richardson:

As per our telephone conversation of July 30, I am writing to request the use of the original instruments used in your dissertation, "Student Perceptions of University Effectiveness." It would be of great assistance if the actual questions and a copy of your study could be sent to me. I found your topic to be similar enough to the topic of my proposed dissertation that the use of these instruments would be of great assistance in my research. The proposed title of my dissertation is "The Perceptions of College Students on the Effectiveness of Institutions of Higher Learning in the Federation of North Texas."

This study is being supervised by Dr. Bill Miller, my major advisor and a department chair at College of Education at the University of North Texas, Denton, as a part of my doctoral dissertation.

It was with pleasure that I read your dissertation and would appreciate your assistance in this matter. If there are any questions, please feel free to call me at (817) 381-0508.

Sincerely,

Mr. Felix U. Kamuche, Jr.

FK:rj

xc: Dr. Bill Miller, Committee Chairman



NATIONAL CENTER FOR POSTSECONDARY GOVERNANCE AND FINANCE

RESEARCH CENTER AT ARIZONA STATE UNIVERSITY

College of Education, Tempe, Arizona 85287-1611
(602) 965-4946 FAX: (602) 965-4993

Richard C. Richardson, Jr., Associate Director

Executive Office
University of Maryland
Room 4114, CSS Building (224)
College Park, MD 20742-2415

Richard P. Chis
Executive Director

Russell Edgerie
Chairman
National Advisory Board

RESEARCH CENTERS AT:

Arizona State University

University of Maryland
College Park

Teachers College,
Columbia University

August 3, 1990

Mr. Felix Kamuche, Jr.
Doctoral Candidate
University of North Texas
P.O. Box 8466
UNT Station
Denton, Texas 76203-0466

Dear Mr. Kamuche:

You have my approval to use the survey instrument reproduced in the dissertation by Dr. Gary Lewis Kleemann for your own dissertation study. Permission includes the right to duplicate the survey, to attach your own cover, and to make such other modifications to either of the surveys in the Kleemann dissertation to make them suitable for your study. Please include a statement at the bottom of the first or second page of your survey acknowledging the source of your survey and the fact that it is being used with our permission.

On this letter I have included the current address of Dr. Gary Kleemann, who developed the programs for analyzing the survey in addition to the ones recorded in his dissertation. You may wish to correspond with him about his experiences and what he learned.

When you have completed your work, Dr. Kleemann and I would appreciate a copy of your results. Good luck with your study.

Sincerely,

Richard C. Richardson, Jr.

RCR:aes

cc: Dr. Gary Kleemann
Coordinator, Associated Students
Arizona State University, MU 208C
Tempe, Arizona 85287-1001

Mr. Felix U. Kamuche, Jr.
Doctoral Candidate
University of North Texas
Post Office Box 8466
UNT Station
Denton, TX 76203-0466

August 10, 1990

Dr. Gary Kleemann
Coordinator, Associated Students
Arizona State University, MU 208C
Tempe, Arizona 85287-1001

RE: Request for original instruments

Dear Dr. Kleemann:

In reference to communication with Dr. Richard C. Richardson, Jr., I am requesting the use of the original instruments used in the study, "Student Perceptions of University Effectiveness." In my letter to Dr. Richardson, I mentioned that I found the topic to be similar enough to the topic of my proposed dissertation that the use of these instruments would be of great assistance in my research. The proposed title of my dissertation is "The Perceptions of College Students on the Effectiveness of Institutions of Higher Learning in the Federation of North Texas.

This study is being supervised by Dr. Bill Miller, Department Chair of the College of Education in the University of North Texas and my Major Professor, as a part of my doctoral dissertation.

Your assistance in forwarding a copy of the original instruments and any other materials which you feel may facilitate my research would be greatly appreciated. If there are any questions, please feel free to call me at (817) 381-0508.

Sincerely,

Mr. Felix U. Kamuche, Jr.

FK:rj

xc:Dr. Bill Miller, Committee Chairman

Matthew Ortega, President
Jeanette Wiclomcier, Executive Vice President

Cherie Verhines, Campus Affairs Vice President
Frank McCune, Activities Vice President

ASSOCIATED STUDENTS
OF ARIZONA STATE UNIVERSITY


August 13, 1990

Mr. Felix Kamuche, Jr.
Doctoral Candidate
University of North Texas
P.O. Box 8466
UNT Station
Denton, Texas 76203-0466

Dear Mr. Kamuche:

Per our telephone conversation today, I am enclosing the materials you requested. I wish you success in your endeavors and I am looking forward to seeing the results of your study.

Sincerely,


Gary L. Kleemann
Coordinator, Associated Students
Arizona State University

Validation Letter

August 18, 1990

University of North Texas
Post Office Box 8466
Denton, TX 76203

Dear Sir:

I am conducting a study under the supervision of Dr. Bill Miller at the University of North Texas, Denton, Texas. The study concerns the perceptions of university effectiveness by students in colleges of business. Your cooperation is important to the completion of this questionnaire.

Enclosed is a questionnaire designed for this study. This instrument is a revised version of one by Dr. Richardson, Dr. Kimball, Dr. Wolf, and Dr. Kleemann from their study, Missions and Priorities of Arizona Universities: A Research Report. I have the expressed permission of Dr. Richardson and Dr. Kleemann to modify and use the instrument for the purpose of this study.

Please feel free to make suggestions as to any additions or deletions you consider important. Your review of the questionnaire will go a long way to help establish validity for the instrument.

Your early response and return of this questionnaire will be appreciated.

Sincerely,

Felix U. Kamuche, Jr.
Doctoral Candidate

October 31, 1990

Dear Student:

I would like to ask you to take a few minutes to participate in an important research activity which is designed to identify indicators of effectiveness in your university. Approximately thirty minutes of class time will be required to complete the attached questionnaire.

The questionnaire allows you to express your judgement regarding the level of achievement and importance of each indicator listed in determining the effectiveness of your institution. Please complete the questionnaire and turn it in at the end of the session. Do not include your name on the questionnaire. Your responses will remain confidential and all answers will be reported in summary form.

The data collected should be of great value to your university. I appreciate your willingness to participate in this unique opportunity to share your views.

Sincerely yours,

Felix Kamuche, Jr.
Doctoral Candidate

Box 8466, UNT
Denton, Texas 76203
October 31, 1990

Dr. Henry Hays
Office of the Dean
College of Business Administration
University of North Texas

Dear Dr. Hays:

I am a doctoral candidate majoring in Higher Education Administration with a minor in Business Administration at the University of North Texas. Dr. Bill Miller is my major advisor. My proposed study, "University Effectiveness with Respect to Perceived Student Satisfaction: A Comparative Study of Selected Factors," should provide valuable data regarding students' perceptions of the university's effectiveness. The study will assess the level of support for various activities and missions of two universities as well as the perceptions of how well these activities are being carried out.

I am requesting permission to administer the enclosed instrument to a small number of classes between November 8 and November 30, 1990. Approximately thirty minutes of class time will be required for students to complete the questionnaire. All responses will be held in strict confidence and no individuals' names will be associated with the data presentation.

Your response, at your earliest convenience, is greatly appreciated.

Sincerely,

Felix Kamuche, Jr.
Doctoral Candidate

October 31, 1990

Dear Faculty Member:

I would like to ask your permission for students in your class to participate in an important research activity which is designed to identify indicators of effectiveness in your university. Approximately thirty minutes of class time will be required to complete the attached questionnaire.

The questionnaire allows students to express their judgement regarding the level of achievement and importance of each indicator listed in determining the effectiveness of your institution. Please have students complete the questionnaire and turn it in at the end of the session. Students are not to include their names on the questionnaire. Their responses will remain confidential and all answers will be reported in summary form.

The data collected should be of great value to your university. I hope you will be willing to allow your students to participate in this unique opportunity to share their views.

Sincerely yours,

Felix Kamuche, Jr.
Doctoral Candidate

Box 8466, UNT
Denton, Texas 76203
October 31, 1990

Dr. Derrel Bulls
Office of the Chair
Department of Business and Economics
Texas Woman's University
Denton, Texas 76204

Dear Dr. Bulls:

I am a doctoral candidate majoring in Higher Education Administration with a minor in Business Administration at the University of North Texas. Dr. Bill Miller is my major advisor. My proposed study, "University Effectiveness with Respect to Perceived Student Satisfaction: A Comparative Study of Selected Factors," should provide valuable data regarding students' perceptions of the university's effectiveness. The study will assess the level of support for various activities and missions of two universities as well as the perceptions of how well these activities are being carried out.

I am requesting permission to administer the enclosed instrument to a small number of classes between November 8 and November 30, 1990. Approximately thirty minutes of class time will be required for students to complete the questionnaire. All responses will be held in strict confidence and no individuals' names will be associated with the data presentation.

Your response, at your earliest convenience, is greatly appreciated.

Sincerely,

Felix Kamuche, Jr.
Doctoral Candidate

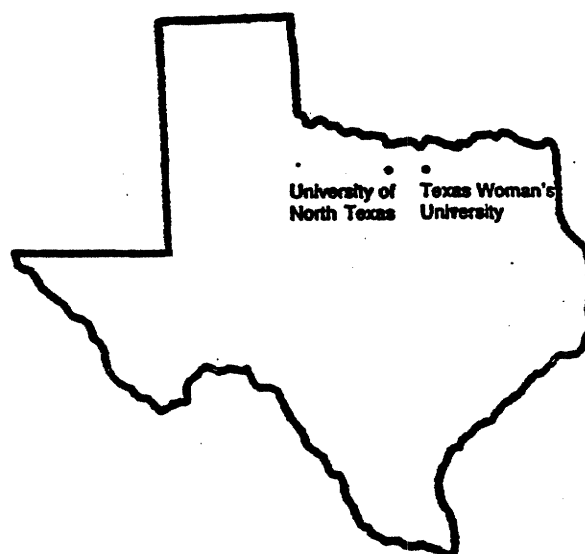
Chart of Factor Loadings 10 Factor Solution

		FACTOR LOADINGS
Activity Domain 1: Programs and Services for Students		
Item 32	Career and placement services	.58
Item 20	Provide information to students	.56
Item 33	Adequate study space	.55
Item 22	Financial assistance services	.54
Item 65	Academic advising	.51
Item 47	Orientation programs for students	.42
Item 11	Counseling for students	.41
Item 52	Medical care for students	.40
Item 51	Assist handicapped	.40
Item 41	Sponsor student government	.36
Item 40	Provide instructor evaluations	.34
Item 17	Involve students in important decisions	.32
Item 2	Remove poor teachers	.32
Item 14	Provide transcripts with honors indicated	.31
Item 7	Offer undergraduate degree programs	.31
Item 36	Offer small classes	.30
Activity Domain 2: Emphasizing Minorities and Women		
Item 49	Recruit minority faculty	.78
Item 23	Recruit minorities	.78
Item 66	Tutoring for minorities	.74
Item 18	Conduct research for minorities	.71
Item 54	Information on minorities—degree	.66
Item 31	Recruit and retain women faculty	.52
Item 13	Accept international students	.34
Activity Domain 3: Quality of Research and Teaching		
Item 44	Reward good research	.65
Item 38	Sponsor research—keep quality faculty	.52
Item 42	Provide quality labs	.49
Item 34	Reward good teaching	.46
Item 56	Recruit scholars & researchers	.44
Item 46	Provide library resources and services	.33
Activity Domain 4: Research and Knowledge Dissemination		
Item 12	Conduct research	.53
Item 4	Conduct contract research	.52
Item 8	Short courses—use research	.42
Item 9	Publish books	.40
Item 15	Computer literacy	.31
Item 3	Provide leadership training	.30
Item 6	Operate public TV stations	.30

Activity Domain 5: Workshops and Counseling to Broaden Access		
Item 59	Offer workshops—study skills	.49
Item 48	Offer workshops—health, recreation, hobbies	.42
Item 58	Provide pregnancy counseling & health svcs.	.42
Item 15	Include computer literacy in degree programs	.31
Item 43	Offer courses by telecommunication, etc.	.30
Item 39	Offer remedial instruction	.30
Activity Domain 6: Athletics		
Item 21	Sponsor intercollegiate athletics	.74
Item 64	Recruit athletes	.60
Item 35	Sponsor intramurals	.51
Activity Domain 7: Support Cultural Activities		
Item 26	Sponsor art events, performances, etc.	.55
Item 1	Sponsor films, exhibitions, productions, etc.	.43
Activity Domain 8: Offer Graduate Programs		
Item 63	Offer graduate programs—humanities	.55
Item 60	Offer graduate programs—professional	.43
Item 62	Develop professional graduate programs	.39
Activity Domain 9: Leasing Facilities		
Item 10	Lease facilities for profit	.52
Item 16	Nonprofit use of facilities	.46
Activity Domain 10: Increasing Standards		
Item 57	Limit enrollment	.38
Item 27	Require writing test to graduate	.32

Source: Gary L. Kleemann and R. C. Richardson, Jr.
1985. Student characteristics and perceptions of university
effectiveness. The Review of Higher Education 8-9.

An Opinion Survey



ADAPTED FROM "PRIORITIES FOR ARIZONA UNIVERSITIES:
A STATEWIDE SURVEY" WITH PERMISSION OF
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Introduction

This study is being done to find out how students feel about the priorities of the university they attend. The statements in this booklet represent a wide range of activities universities can do; not all of these activities may currently be done at your university. Please answer all of the questions as well as you can. If you wish to comment on any question or to explain an answer, please use the space at the back of this booklet.

DIRECTIONS

Please answer each of the statements in this booklet as shown in the following examples.

Each statement asks you to answer two questions:
 1. Is this important to do? Here you show how much you agree that the activity is important for your university to do. Everyone should answer this question.

2. Is this being done well? Here you show how much you agree that the activity is now being done well at this university. If the activity is not being done currently at your university or if you have no information about the activity, a separate response is provided.

Please read the following examples carefully, and place checkmark ABOVE desired answer as shown.

Example 1

All questions are about this university, that is, the one at which you are presently enrolled. Checkmark above one number after important to do and one after being done well. This university should ...	Not Being Done or No Opinion Strongly Agree Agree Disagree Strongly Disagree				
	1. Provide special tutoring and advising for students having difficulty with their academic programs.	Important To Do	2	4	0
	Being Done Well	2	4	0	0

This first example shows that the person answering is neutral about the importance of this activity but

strongly disagrees that his/her university is currently offering such tutoring and advising very well.

Example 2

2. Operate a teaching hospital to advance knowledge and to help train medical and other health science students.	Important To Do	2	4	0	0
	Being Done Well	2	4	0	0

This second example shows that the person answering strongly agrees that operating a teaching hospital

is important to do, but does not believe this activity is currently being done.

Example 3

3. Publish books of interest to Texas.	Important To Do	2	4	0	0
	Being Done Well	2	4	0	0

This third example shows that the person answering does not believe publishing books is important but

does feel that this activity is being done well.

All questions are about this university, that is, the one at which you are presently enrolled.

Cross through one number after important to do and one after being done well.

This university should . . .

		Not Being Done or No Opinion				
		Disagree		Agree		
		Strongly Disagree				Strongly Agree
1. Sponsor films, speakers, exhibitions and musical and dramatic productions for students and the community.	Important To Do	1	2	3	4	
	Being Done Well	1	2	3	4	0
2. Remove from teaching assignments faculty who consistently receive unsatisfactory student course ratings.	Important To Do	1	2	3	4	
	Being Done Well	1	2	3	4	0
3. Provide incentives and training to assist students in developing and practicing leadership skills.	Important To Do	1	2	3	4	
	Being Done Well	1	2	3	4	0
4. Conduct research under contracts funded by business, industry, foundations and government agencies to assist the training of graduate students and to keep faculty up-to-date.	Important To Do	1	2	3	4	
	Being Done Well	1	2	3	4	0
5. Employ trained students to assist in academic advising.	Important To Do	1	2	3	4	
	Being Done Well	1	2	3	4	0
6. Operate non-profit public television stations as a community and educational service.	Important To Do	1	2	3	4	
	Being Done Well	1	2	3	4	0

All questions are about this university, that is, the one at which you are presently enrolled. Cross through one number after important to do and one after being done well. This university should ...	Not Being Done or No Opinion					
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	
7. Offer selected undergraduate degree programs in business, humanities, the arts, behavioral and social sciences, physical sciences, mathematics and professional fields.	Important To Do	1	2	3	4	5
	Being Done Well	1	2	3	4	5
8. Offer short courses and provide technical assistance to help students and the general public use the findings of university research in areas such as energy conservation and crop production.	Important To Do	1	2	3	4	5
	Being Done Well	1	2	3	4	5
9. Publish for sale scholarly books, pamphlets and reports to share the results of faculty and student research.	Important To Do	1	2	3	4	5
	Being Done Well	1	2	3	4	5
10. Earn a profit by leasing university facilities such as football stadiums, activity centers, meeting rooms and exhibition space to private corporations.	Important To Do	1	2	3	4	5
	Being Done Well	1	2	3	4	5
11. Provide counseling and related services to assist students in coping with problems such as depression, stress and alcohol and drug abuse.	Important To Do	1	2	3	4	5
	Being Done Well	1	2	3	4	5
12. Conduct research in areas such as energy, agriculture, electronics, government, economics, and education to contribute to the future growth and wealth of the state and nation.	Important To Do	1	2	3	4	5
	Being Done Well	1	2	3	4	5

<p>All questions are about this university, that is, the one at which you are presently enrolled.</p> <p>Cross through one number after important to do and one after being done well.</p> <p>This university should . . .</p>		Not Being Done or No Opinion				
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<p>13. Accept international students who meet university admission standards.</p>	Important To Do	1	2	3	4	5
	Being Done Well	1	2	3	4	5
<p>14. Provide academic transcripts which include information about honors, awards, and activities when requested by students.</p>	Important To Do	1	2	3	4	5
	Being Done Well	1	2	3	4	5
<p>15. Include information about the use of computers in all undergraduate degree programs to develop computer literacy.</p>	Important To Do	1	2	3	4	5
	Being Done Well	1	2	3	4	5
<p>16. Let non-profit organizations use university facilities such as football stadiums, activity centers and exhibition space if they pay all costs.</p>	Important To Do	1	2	3	4	5
	Being Done Well	1	2	3	4	5
<p>17. Provide opportunities for students to be involved in important university decisions including those related to the budget.</p>	Important To Do	1	2	3	4	5
	Being Done Well	1	2	3	4	5
<p>18. Conduct research and provide technical assistance to meet the special needs of Texas' ethnic and racial minorities.</p>	Important To Do	1	2	3	4	5
	Being Done Well	1	2	3	4	5

<p>All questions are about this university, that is, the one at which you are presently enrolled.</p> <p>Cross through one number after important to do and one after being done well.</p> <p>This university should . . .</p>	Not Being Done or No Opinion					
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	
<p>19. Require all undergraduates degree programs to include liberal education courses such as humanities, fine arts, social and behavioral sciences, physical sciences and mathematics.</p>	Important To Do	1	2	3	4	5
	Being Done Well	1	2	3	4	5
<p>20. Provide current information to students about services offered by the university.</p>	Important To Do	1	2	3	4	5
	Being Done Well	1	2	3	4	5
<p>21. Sponsor competitive intercollegiate athletic programs for men and women.</p>	Important To Do	1	2	3	4	5
	Being Done Well	1	2	3	4	5
<p>22. Provide advising and administrative services to help qualified students receive financial assistance.</p>	Important To Do	1	2	3	4	5
	Being Done Well	1	2	3	4	5
<p>23. Actively recruit and offer financial aid to ethnic and racial minorities.</p>	Important To Do	1	2	3	4	5
	Being Done Well	1	2	3	4	5
<p>24. Provide this university library hours at least until 2:00 a.m.</p>	Important To Do	1	2	3	4	5
	Being Done Well	1	2	3	4	5

All questions are about this university, that is, the one at which you are presently enrolled.

Cross through one number after Important to do and one after being done well.

This university should ...

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Not Being Done or No Opinion
25. Actively recruit and offer financial aid to students with academic and artistic talents.	Important To Do	1	2	3	4	5	
	Being Done Well	1	2	3	4	5	0
26. Encourage advancement in the creative arts by sponsoring arts events, exhibitions and performances.	Important To Do	1	2	3	4	5	
	Being Done Well	1	2	3	4	5	0
27. Award degrees only to students who pass a standard test in writing skills to ensure that graduates can write clearly and effectively.	Important To Do	1	2	3	4	5	
	Being Done Well	1	2	3	4	5	0
28. Provide limited use of university resources such as secretarial help, computer time and copy services to faculty who serve as paid consultants to business and industry, government and community agencies.	Important To Do	1	2	3	4	5	
	Being Done Well	1	2	3	4	5	0
29. Change the name of this university to better reflect the characteristics specific to this institution.	Important To Do	1	2	3	4	5	
	Being Done Well	1	2	3	4	5	0
30. Contract with private corporations to provide on-campus services currently run by universities such as bookstores, copying and food services.	Important To Do	1	2	3	4	5	
	Being Done Well	1	2	3	4	5	0

All questions are about this university, that is, the one at which you are presently enrolled. Cross through one number after important to do and one after being done well. This university should . . .	Not Being Done or No Opinion						
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree		
31. Make special efforts to recruit and retain qualified women faculty.	Important To Do	1	2	3	4	5	
	Being Done Well	1	2	3	4	5	0
32. Provide career and job placement services to university students.	Important To Do	1	2	3	4	5	
	Being Done Well	1	2	3	4	5	0
33. Provide adequate space for students to study on campus.	Important To Do	1	2	3	4	5	
	Being Done Well	1	2	3	4	5	0
34. Reward faculty for good teaching.	Important To Do	1	2	3	4	5	
	Being Done Well	1	2	3	4	5	0
35. Sponsor recreational athletic programs for all students.	Important To Do	1	2	3	4	5	
	Being Done Well	1	2	3	4	5	0
36. Offer small classes (25 or less).	Important To Do	1	2	3	4	5	
	Being Done Well	1	2	3	4	5	0

<p>All questions are about this university, that is, the one at which you are presently enrolled.</p> <p>Cross through one number after important to do and one after being done well.</p> <p>This university should . . .</p>	Not Being Done or No Opinion						
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree		
<p>37. Require students who are not residents of Texas to pay the full costs of their education.</p>	Important To Do	1	2	3	4	5	
	Being Done Well	1	2	3	4	5	0
<p>38. Sponsor research to attract and keep well qualified faculty and students.</p>	Important To Do	1	2	3	4	5	
	Being Done Well	1	2	3	4	5	0
<p>39. Offer remedial instruction in reading, writing and mathematics to university students who need help with these skills.</p>	Important To Do	1	2	3	4	5	
	Being Done Well	1	2	3	4	5	0
<p>40. Provide instructor evaluations to help students select courses.</p>	Important To Do	1	2	3	4	5	
	Being Done Well	1	2	3	4	5	0
<p>41. Sponsor an effective student government to serve all students.</p>	Important To Do	1	2	3	4	5	
	Being Done Well	1	2	3	4	5	0
<p>42. Provide high quality modern laboratories to support student and faculty research.</p>	Important To Do	1	2	3	4	5	
	Being Done Well	1	2	3	4	5	0

<p>All questions are about this university, that is, the one at which you are presently enrolled.</p> <p>Cross through one number after important to do and one after being done well.</p> <p>This university should . . .</p>	Not Being Done or No Opinion						
	Disagree		Neutral		Agree		
	Strongly Disagree	1	2	3	4	5	0
<p>43. Offer selected courses by telecommunication, radio or correspondence.</p>	Important To Do	1	2	3	4	5	0
	Being Done Well	1	2	3	4	5	0
<p>44. Reward faculty for good research.</p>	Important To Do	1	2	3	4	5	0
	Being Done Well	1	2	3	4	5	0
<p>45. Provide tenure (reasonable assurance of continuing employment) to faculty who maintain professional standards approved by the Board of Regents.</p>	Important To Do	1	2	3	4	5	0
	Being Done Well	1	2	3	4	5	0
<p>46. Provide library resources and services to support the educational program.</p>	Important To Do	1	2	3	4	5	0
	Being Done Well	1	2	3	4	5	0
<p>47. Provide programs to acquaint students with the campus and to assist them in adjusting to the collegiate environment.</p>	Important To Do	1	2	3	4	5	0
	Being Done Well	1	2	3	4	5	0
<p>48. Offer non-credit courses and workshops for the general public in areas such as health, recreation and hobbies.</p>	Important To Do	1	2	3	4	5	0
	Being Done Well	1	2	3	4	5	0

<p>All questions are about this university, that is, the one at which you are presently enrolled.</p> <p>Cross through one number after important to do and one after being done well.</p> <p>This university should . . .</p>	<p style="text-align: right;">Not Being Done or No Opinion</p>						
	<p style="text-align: center;">Strongly Agree</p>		<p style="text-align: center;">Agree</p>		<p style="text-align: center;">Neutral</p>		
<p style="text-align: center;">Disagree</p>		<p style="text-align: center;">Neutral</p>		<p style="text-align: center;">Agree</p>			
<p style="text-align: center;">Strongly Disagree</p>		<p style="text-align: center;">Disagree</p>		<p style="text-align: center;">Agree</p>			
<p>49. Make special efforts to recruit and retain qualified minority faculty.</p>	<p>Important To Do</p>	1	2	3	4	5	
	<p>Being Done Well</p>	1	2	3	4	5	0
<p>50. Sponsor student publications such as the campus newspaper and literary magazines to inform the campus community and to provide examples of student literary work.</p>	<p>Important To Do</p>	1	2	3	4	5	
	<p>Being Done Well</p>	1	2	3	4	5	0
<p>51. Provide special assistance such as Braille texts, tutoring services, or sign language to physically handicapped students.</p>	<p>Important To Do</p>	1	2	3	4	5	
	<p>Being Done Well</p>	1	2	3	4	5	0
<p>52. Provide students immediate medical care and continuing education on health-related problems.</p>	<p>Important To Do</p>	1	2	3	4	5	
	<p>Being Done Well</p>	1	2	3	4	5	0
<p>53. Offer selected courses and degree programs at off-campus locations or branch campuses.</p>	<p>Important To Do</p>	1	2	3	4	5	
	<p>Being Done Well</p>	1	2	3	4	5	0
<p>54. Include information about the achievements and needs of Texas' ethnic and racial minorities as part of all undergraduate degree programs.</p>	<p>Important To Do</p>	1	2	3	4	5	
	<p>Being Done Well</p>	1	2	3	4	5	0

<p>All questions are about this university, that is, the one at which you are presently enrolled.</p> <p>Cross through one number after important to do and one after being done well.</p> <p>This university should ...</p>	Not Being Done or No Opinion						
	Strongly Agree		Agree		Neutral		
	Disagree		Strongly Disagree				
<p>55. Have regular members of the faculty closely supervise all classes taught by teaching assistants.</p>	Important To Do	1	2	3	4	5	
	Being Done Well	1	2	3	4	5	0
<p>56. Make special efforts to recruit and retain recognized scholars and researchers for university faculties.</p>	Important To Do	1	2	3	4	5	
	Being Done Well	1	2	3	4	5	0
<p>57. Limit enrollment to students who graduated in the upper half of their high school class or who have above average scores on standardized aptitude tests.</p>	Important To Do	1	2	3	4	5	
	Being Done Well	1	2	3	4	5	0
<p>58. Provide counseling and health services to help students avoid or cope with unwanted pregnancies.</p>	Important To Do	1	2	3	4	5	
	Being Done Well	1	2	3	4	5	0
<p>59. Offer courses and workshops in areas such as study skills and academic survival skills.</p>	Important To Do	1	2	3	4	5	
	Being Done Well	1	2	3	4	5	0
<p>60. Offer selected master's and doctoral degree programs in business, engineering, education, architecture, social work, public administration, agriculture and forestry.</p>	Important To Do	1	2	3	4	5	
	Being Done Well	1	2	3	4	5	0

All questions are about this university, that is, the one at which you are presently enrolled. Cross through one number after important to do and one after being done well. This university should . . .	Not Being Done or No Opinion					
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	
61. Admit to regular university courses high school students who are recommended by their principals.	Important To Do	1	2	3	4	5
	Being Done Well	1	2	3	4	5
62. Develop programs in veterinary medicine, dentistry, optometry, and other professional areas not currently available at any Texas university.	Important To Do	1	2	3	4	5
	Being Done Well	1	2	3	4	5
63. Offer selected master's and doctoral degree programs in the humanities, fine arts, social and behavioral sciences, physical sciences and mathematics.	Important To Do	1	2	3	4	5
	Being Done Well	1	2	3	4	5
64. Actively recruit and offer financial aid to students with athletic talents.	Important To Do	1	2	3	4	5
	Being Done Well	1	2	3	4	5
65. Provide academic advisement to assist students in achieving educational goals.	Important To Do	1	2	3	4	5
	Being Done Well	1	2	3	4	5
66. Provide special tutoring and advisement to ethnic and racial minority students to help them get through their educational programs.	Important To Do	1	2	3	4	5
	Being Done Well	1	2	3	4	5

Now we have some questions to get information about your background. We know that people of different backgrounds differ in their opinions. Young people are different than old, and men and women answer differently. You can help us understand these differences by answering the following questions about yourself. Thank you.

Please check the appropriate number which is beside your answer to each question.

67. What is your gender?
 1() Female
 2() Male
68. What is your age? _____years
69. What is your marital status?
 1() Single, never married
 2() Single but previously married
 3() Married
70. What is your classification?
 1() Freshman
 2() Sophomore
 3() Junior
 4() Senior
 5() Graduate
71. Check the item that best describes your major:
 01() Accounting
 02() Business Computer Applications
 03() Banking/Finance
 04() Insurance
 05() Real Estate
 06() Personnel
 07() Management
 08() Production & Operations Management
 09() Marketing
 10() General Business
 11() Business Education, Secretarial Admin.
 12() Not A Business Major
72. Are you currently receiving financial aid (such as BEOG, GSL, work-study, etc.)?
 1() Yes
 2() No
73. My residence is:
 1() On campus
 2() Less than 1 mile from campus
 3() 1-5 miles from campus
 4() 6-10 miles from campus
 5() Over 10 miles from campus
74. Do you reside with your parents?
 1() Yes
 2() No
75. Politically, how do you think of yourself?
 1() Conservative
 2() Somewhat conservative
 3() Middle-of-the-road
 4() Somewhat liberal
 5() Liberal
76. How do you describe yourself?
 1() Black
 2() Hispanic
 3() American Indian
 4() Asian/Oriental
 5() White, not Hispanic
 6() Other_____
77. How many credit hours are you currently enrolled for?
 1() 1-3 hours
 2() 4-6 hours
 3() 7-9 hours
 4() 10-12 hours
 5() 13 or more hours
78. How many courses are you currently enrolled for?
 1() One course
 2() Two courses
 3() Three courses
 4() Four courses
 5() Five or more courses
79. What is your overall Grade Point Average?
 1() 3.5-4.0
 2() 3.0-3.49
 3() 2.5-2.99
 4() 2.0-2.49
 5() Below 2.00
80. Are you classified as an in-state or out-of-state resident?
 1() In-state
 2() Out-of-state

81. Do you have either a part-time or full-time job?
1() Yes
2() No
82. Please check all of the services listed below that you have personally used.
- 01() Counseling services
 - 02() Career Planning and Placement
 - 03() Financial Aids
 - 04() Health Services
 - 05() Intramurals
 - 06() Library
 - 07() Student Government
 - 08() Campus newspaper
 - 09() Courses or workshops in areas such as study skills or academic survival skills
 - 10() Academic advancement

BIBLIOGRAPHY

- A work revolution in U.S. industry. 1983. Business Week (16 May): 10-110.
- Adetoro, A. S. 1983. Factors associated with quality of academic programs and types of jobs secured by graduates of handcrafted textile. Design programs of universities and polytechnics in Nigeria. Ph.D. diss., University of North Texas.
- Anderson, C. R. 1984. Management: Skills, functions and organization performance. Dubuque, IA: William C. Brown.
- Anderson, R. E. 1983. Finance and effectiveness: A study of college environments. Princeton, NJ: Educational Testing Service.
- Angrist, S. S., and E. M. Almquist. 1975. Careers and contingencies: How college women juggle with gender. New York: Duneller.
- Argyris, C. 1964. Integrating the individual and the organization. New York: Wiley.
- _____. 1982. Reasoning, learning, and action. San Francisco: Jossey-Bass.
- Argyris, Chris. 1962. Interpersonal competence and organizational effectiveness. Homewood, IL: Irwin.
- Argyris, C., and D. A. Schon. 1978. Organizational learning: A theory of action perspective. Reading, MA: Addison-Wesley.
- Arnowitz, S. 1986. The myth of full employment. The Nation 242, 5 (February 8): 135-38.
- Aronson, E. 1984. The social animal. 4th ed. New York: Freeman.
- Ary, D. L. C. Jacobs, and A. Razavieh. 1985. Introduction to research in education 3d ed. New York: Holt, Rinehart and Winston.

Astin A. W. 1977. Four critical years: Effects of college on beliefs, attitudes, and knowledge. San Francisco: Jossey-Bass.

_____. 1982. Why not try some new ways of measuring quality? Educational Record 63, 2 (Spring) 10-15.

Astin, Alexander W. 1964. Personal and environmental factors associated with college dropouts among high aptitude students. Journal of Educational Psychology 55 (Spring): 219-227.

_____. 1965. The effect of different college environments on the vocational choices of high aptitude students. Journal of Counseling Psychology 12 (Spring): 28-34.

_____. 1968. The college environment. Washington: American Council on Education.

_____. 1972. College dropouts: A national profile. Washington: American Council on Education.

_____. 1975. Preventing students from dropping out. San Francisco: Jossey-Bass.

Astin, A. W., and R. A. Scherrei. 1980. Maximizing leadership effectiveness. San Francisco: Jossey-Bass.

Astuto, T. A., and D. L. Clark. 1986. Achieving effective schools. In The management of schools, ed. E. Hoyle and A. Mahon, 57-72. London: Kogan Page.

Azumi, J. E. 1987. Effective school characteristics, school improvement, and school outcomes: What are the relationships. Paper presented at the Annual Meeting of the American Educational Research Association, Washington, D. C.

Baker, Robert W., and Louis J. Nidorf. 1964. Patterns of occurrence of psychological disturbances in college students as a function of year level. Journal of Clinical Psychology 10 (October): 530-531.

Balderston, Frederick E. 1974. Managing today's universities. San Francisco: Jossey-Bass.

Banning, J. H., ed. 1978. Campus ecology: A perspective for student affairs. Cincinnati, OH: National Association of Student Personnel Administrators.

- Barger, Ben, and Everette Hall. 1964. Personality patterns and achievement in college, Educational and Psychological Measurement, 24 (Spring): 339-346.
- Barnard, Chester. 1938. The functions of the executive. Cambridge, MA: Harvard University Press.
- Barney, Jay. (1978. The electronic revolution in the watch industry: A decade of environmental changes and corporate strategies. In Organizational adaptation to environment, ed. Robert H. Miles, 1-63. Working Paper No. 7, Government and Business Relations Series. New Haven, CT: Yale University.
- Barro, Stephen M. 1973. Toward operational accountability systems for colleges and universities. In Addresses and proceedings, 32-47. Oakland, CA: Western College Association.
- Bass, B. M. 1981. Stogdill's handbook of leadership. New York: Free Press.
- Bateman, T. S., and D. W. Organ. 1983. Job satisfaction and the good soldier: The relationship between affect and employee 'citizenship.' Academy of Management Journal 26, 4 (December): 487-595.
- Baughner, D., ed. 1981. Measuring effectiveness. New directions for program evaluation, No. 11. San Francisco: Jossey-Bass.
- Beer, M. 1980. Organizational change and development: A systems review. Santa Monica, CA: Goodyear Publishing.
- Bell, D. 1973. The coming of the post-industrial society. New York: Basic Books.
- Bennis, W. G. 1966. Changing organizations. New York: McGraw-Hill.
- Beyer, Janice M., and Reuben Snipper. 1974. Objective versus subjective indicators of quality in graduate education. Sociology of Education 47, 4 (Fall): 541-557.
- Blackburn, R. S. 1982. Dimensions of structure: A review and reappraisal. Academy of Management Review 7 (January): 59-66.
- Blanchard, K., and S. Johnson. 1982. The one minute manager. New York: Berkley Books.

- Blau, P. 1973. The organization of academic work. New York: Wiley Interscience.
- Blau, P., and R. Scott. 1962. Formal organizations. San Francisco: Chandler.
- Bleudorn, A. C. 1980. Cutting the gordian knot: A critique of the effectiveness in organization research. Sociology and Social Research 64 (July): 477-496.
- Blood, D. F., and W. C. Budd. 1972. Educational measurement and evaluation. New York: Harper and Row.
- Bloom, Allan. 1987. The closing of the American mind. New York: Simon and Schuster.
- Bogdan, Jr. C., and S. K. Biklen. Qualitative research for education: An introduction to theory and methods. Boston: Allyn and Bacon.
- Bolman, L. G., and T. E. Deal. 1984. Modern approaches to understanding and managing organizations. San Francisco: Jossey-Bass.
- Borg, Walter, and Meredith D. Gall. 1971. Educational research: An introduction. New York: David McKay Company, Inc.
- Bowen, H. R. 1977. Investment in learning: The individual and social value of American higher education. San Francisco: Jossey-Bass.
- _____. 1980. The costs of higher education. San Francisco: Jossey-Bass.
- Boyer, E. 1986. College: The undergraduate experience in America. New York: Carnegie Commission for the Advancement of Teaching.
- Breatnach, S. B. 1984. Trends: Mothers and others of invention. Washington Post, July 16.
- Brubacher, J. S., and W. Rudy. 1976. Higher education in transition. New York: Harper and Row.
- Cameron, K. S. 1978a. Measuring organizational effectiveness in institutions of higher education. Administrative Science Quarterly 23, 4 (December): 604-632

- _____. 1978b. Organization effectiveness: Its measurement and prediction in higher education. Ph.D. diss., Yale University.
- _____. 1980. Critical questions in assessing organizational effectiveness. Organizational Dynamics 9 (Autumn): 66-80.
- _____. 1981a. The enigma of organizational effectiveness. New directions for program evaluation: Assessing effectiveness. San Francisco: Jossey-Bass.
- _____. 1981b. Domains of organizational effectiveness in colleges and universities. Academy of Management Journal 24, 1 (March): 25-47.
- _____. 1984. Organizational adaptation and higher education. Journal of Higher Education 55, 2 (March/April): 122-144.
- _____. 1986a. Effectiveness as Paradox: Consensus and conflict in conceptions of organizational effectiveness. Management Science 32(5): 539-553.
- _____. 1986b. A study of organizational effectiveness and its predictors. Management Science. 32(1): 87-112.
- Cameron, K. S., and D. A. Whetten. 1981. Perceptions of organizational effectiveness over organizational life cycles. Administrative Science Quarterly 26, 4 (December): 525-544.
- Cameron, K. S., and D. A. Whetten. 1983a. Organizational effectiveness: A comparison of multiple models. New York: Academic Press.
- Cameron, K. S., and D. A. Whetten, eds. 1983b. Organizational effectiveness: One model or several? In Organizational effectiveness: A comparison of multiple models, ed. K. S. Cameron and D. H. Whetten, 1-24. New York: Academic Press.
- Campbell, Donald T., and Julian C. Stanley. 1963. Experimental and quasi-experimental designs for research. Boston: Houghton Mifflin Company.
- Campbell, J. P. 1977. On the nature of organizational effectiveness. In New perspectives on organizational effectiveness, 13-55. San Francisco: Jossey-Bass.

- Campbell, J. P., E. A. Bownas, N. G. Peterson, and M. D. Dunnette. 1974. The measurement of organizational effectiveness: A review of relevant research and opinion. San Diego: Naval Personnel Research and Development Center.
- Campbell, J. P., M. D. Dunnette, E. E. Lawler, and K. E. Weick, Jr. 1970. Managerial behavior, performance, and effectiveness. New York: McGraw-Hill.
- Caplow, Theodore. 1964. Principles of organization. New York: Harcourt Brace Jovanovich.
- Carnegie Commission on Higher Education. 1973a. Governance of higher education: Six priority problems. New York: McGraw-Hill.
- _____. 1973b. Higher education: Who pays? Who benefits? Who should pay?. New York: McGraw-Hill.
- _____. 1973c. Opportunities for women in higher education: Their current participation, prospects for future, and recommendations for future action. Berkeley, CA: Carnegie Commission on Higher Education.
- Carnegie Council on Policy Studies in Higher Education. 1980. Three thousand futures: The next twenty years for higher education. San Francisco: Jossey-Bass.
- Carnegie Foundation. 1982. The control of the campus. Princeton, NJ: Princeton University Press.
- Cartter, Allan M. 1966. An assessment of quality in graduate education. Washington: American Council on Education.
- Cattell, Raymond B. 1985. The meaning and strategic use of factor analysis. Handbook of multivariate experimental psychology, ed. Raymond Cattell, 174-243. Chicago: Rand McNally.
- Centra, John A. 1980. Determining faculty effectiveness. San Francisco: Jossey-Bass.
- Child, John A. 1974. What determines organizational performance? Organizational Dynamics 4 (Summer): 2-18.
- Clark, Burton R. 1983. The higher education system. New York: University of California Press.

- Clarke, A. C. 1986. July 20, 2019: Life in the 21st century. New York: Macmillan.
- Cohen, M. D., and J. G. March. 1974. Leadership and ambiguity. New York: McGraw-Hill.
- Coleman, J. S., E. Q. Campbell, C. J. Hobson, J. McPartland, A. M. Mood, F. D. Weinfeld, and R. L. York. 1966. Equality of educational opportunity. Washington, DC: United States Office of Education, National Center for Educational Statistics.
- Comrey, A. L. 1973. A first course in factor analysis. New York: Academic Press.
- Connolly, T., E. M. Conlon, and S. J. Deutsch. 1980. Organizational effectiveness: A multiple constituency approach. Academy of Management Review 5, 2 (April): 211-218.
- Conway, J. A. 1984. The myth, mystery, and mastery of participative decision making in education. Educational Administration Quarterly 20(3): 11-40.
- Cope, R. G. 1981. Strategic planning, management, and decision making. AAHE-ERIC/Higher Education Research Report (No. 9). Washington, DC: American Association of Higher Education.
- Cope, Robert G. 1978. Why students stay, why they leave. Reducing the dropout rate. In New directions for student services, ed. Lee Noel, Vol. 3. San Francisco: Jossey-Bass.
- Cope, Robert G., and William Hannah. 1975. Revolving college doors: The causes and consequences of dropping out, and transferring. New York: John Wiley and Sons.
- Cornish, Edward. 1990. Issues of the 90's: A short list of global concerns. Futurist 24 (Jan/Feb): 29-36.
- Corson, J. J. 1975. The governance of colleges and universities. New York: McGraw-Hill.
- Creamer, D. G., ed. 1980. Student development in higher education. Cincinnati, OH: ACPA Media.
- Crockett, David S. 1977. Trends in higher education. Unpublished report, American College Testing Program.

- Crosby, P. 1979. Quality is free: The art of making quality certain. New York: McGraw-Hill.
- Cummings, Larry L. 1977. Emergence of the instrumental organization. In New perspectives on organizational effectiveness, ed. Paul S. Goodman and Johannes M. Pednning, 56-62. San Francisco: Jossey-Bass.
- Cunningham, Mary. 1982. Admissions variables and the prediction of success in an undergraduate fieldwork program. Journal of Education for Social Work 18 (Spring): 27-34.
- Cyert, R. M. 1975. The management of nonprofit organizations--with emphasis on universities. Lexington, MA: Lexington Books.
- Cyert, R. M., and J. G. March. 1963. A behavioral theory of the firm. Englewood Cliffs, NJ: Prentice-Hall.
- Daft, R. 1983. Organization theory and design. St. Paul, MN: West.
- Daft, Richard L., and John C. Wigenton. 1979. Language and organization. Academy of Management Review 4, 2 (April): 179-191.
- Damanpour, F., and W. M. Evan. 1984. Organizational innovation and performance: The problem of "organizational lag." Administrative Science Quarterly 29(3), 392-409.
- Davis, J. R. 1977. Going to college. Boulder: Westview Press.
- Davis, K. 1976. Social responsibility is inevitable. California Management Review 19 (Fall): 14-20.
- Deal, T. E. 1984. Searching for the Wizard: The quest for excellence in education. Issues in Education 2(1): 56-67.
- DeCarlo, J. F., and P. R. Lyons. 1979. A comparison of selected personal characteristics of minority and nonminority-owned female entrepreneurs. Journal of Small Business Management 17(4): 22-29.
- DeCoster, D. A., and P. Mable, eds. 1981. Understanding today's students: New directions for student services. No. 16. San Francisco: Jossey-Bass.

- Delworth, U., G. R. Hanson, and Associates. 1980. Student services: A handbook for the profession. San Francisco: Jossey-Bass.
- Didsbury, H. R. 1984. Creating a global agenda. Bethesda, MD: World Future Society.
- Donaldson, L. 1985. In defence of organization theory. Cambridge, England: Cambridge University Press.
- Doucette, D. S. 1983. Formulating operational missions for community colleges: A research model. Ph.D. diss., Arizona State University.
- Douglas, Lawrence H. 1984. In search of excellence on college campuses. Chronicle of Higher Education 19 (September 19): 72.
- Douvan, E. 1976. The role of models in women's professional development. Psychology of Women Quarterly 1 (Fall): 5-20.
- Downey, Kirk, Don Hellreigel, and John Slocum. 1975. Environmental uncertainty: The concept and its operationalization. Administrative Science Quarterly 20, 4 (December): 613-629.
- Dressel, Paul L. 1972. Return to responsibility: Constraints on autonomy in higher education. San Francisco: Jossey-Bass
- Dressel, P. L. 1976a. Handbook of academic administration. San Francisco: Jossey-Bass.
- _____. 1976b. Handbook of academic evaluation: Assessing institutional effectiveness, student progress, and professional performance for decision-making in higher education. San Francisco: Jossey-Bass.
- Drucker, P. 1985. Innovation and entrepreneurship. New York: Harper and Row.
- Dubin, Robert. 1976. Organizational effectiveness: Some dilemmas of perspective. Organization and Administrative Sciences 7(2): 7-14.
- Duncan, R. B. 1972. Characteristics of organizational environments and perceived environmental uncertainty. Administrative Science Quarterly 17, 2 (September): 313-327.

- Eddy, J., W. Miller, B. Martin, and Stilson. 1988. Higher education administration: Selected resources for management and leadership. Denton, TX: North Texas State University.
- Estrada, F. Leobardo. 1988. Anticipating the demographic future: Dramatic changes are on the way. Change 20 (May/June): 14-19.
- Etzioni, A. 1961. A comparative analysis of complex organizations, rev. ed. New York: Free Press.
- _____. 1964. Modern organizations. Englewood Cliffs, NJ: Prentice-Hall.
- Farwell, Elwin D., Jonathan R. Warren, and T. R. McConnell. 1962. Student personality characteristics associated with groups of colleges and fields of study. College and University 37 (Spring): 229-241.
- Feldman, K. A., and T. M. Newcomb. 1969. The impact of college on students. San Francisco: Jossey-Bass.
- Ferguson, G. A. 1981. Statistical analysis in psychology and education. New York: McGraw-Hill.
- Fielder, F. 1967. A theory of leadership effectiveness. New York: McGraw-Hill.
- Fields, Cheryl. 1988. The Hispanic pipeline: Narrow, leaking, and needing repair. Change 3 (May/June): 20-27.
- Forester, T. 1985. The information technology revolution. Cambridge: MIT Press.
- Fullerton, H. N. 1985. The 1995 labor force: BLS's latest projections. Monthly Labor Review 108, 11 (November): 17-25.
- Galbraith, J. 1975. Organization design: An informative processing view. Reading, MA: Addison-Wesley.
- Galbraith, J. R. 1973. Designing complex organizations. Reading, MA: Addison-Wesley.
- Galbraith, J. R., and R. K. Kazanjian. 1986. Strategy implementation: Structure, systems, and process. St. Paul, MN: West Publishing.

- Gardner, J. N. 1961. Excellence: Can we be equal and excellent too? New York: Harper.
- Georgopoulos, B. S., and A. S. Tannenbaum. 1957. A study of organizational effectiveness. American Sociological Review 22, 5 (October): 534-540.
- Georgopoulos, B. S., and A. S. Tannenbaum. 1971. Study of organizational effectiveness. Assessment of organizational effectiveness. Pacific Palisades, CA: Goodyear.
- Ghorpade, Jaisingh V. 1968. Study of relative effectiveness of joint stock and cooperative sugar factories. Ph.D. diss., University of California, Los Angeles.
- Ghorpade, J., ed. 1971. Assessment of organizational effectiveness. Pacific Palisades, CA: Goodyear.
- Gibson, J. L., J. M. Ivancevich, and J. H. Donnelly. 1973. Organizations: structure, processes, behavior. Dallas, TX: Business Publications.
- Gigliotti, Linda I. 1987. An adaptation of Cameron's model of Organizational Effectiveness at the academic department level in two-year community college. Working paper, series no. 1-87. Broome Community College, Binghamton, NY, Institute for Community College Research.
- Gladstein, D. L. 1984. Groups in context: A model of task group effectiveness. Administrative Science Quarterly 29, 4 (December): 499-517.
- Goldstein, I. L. 1986. Training in organizations: Needs assessment, development, and evaluation. 2d ed. Monterey, CA: Brooks/Cole.
- Goodman, P. S. 1979. Assessing organizational change: The Rushton Quality of Work Experiment. New York: Wiley.
- Goodman, P. S., and associates. 1982. Change in organizations. San Francisco: Jossey-Bass.
- Goodman, P. S., and L. B. Kurke. 1982. Studies of change in organizations: A status report. In Change in organizations: New perspectives on theory, research, and practice, ed. P. S. Goodman and associates, 5. San Francisco: Jossey Bass.

- Goodman, P. S., and J. M. Pennings, eds. 1977. New perspectives on organization effectiveness. San Francisco: Jossey Bass.
- Goodman, Paul S., Robert S. Atkin, and F. David Schoorman. 1983. On the demise of organizational effectiveness studies. In Organizational effectiveness: A comparison of multiple models, 163-183. New York: Academic Press.
- Greenfield, T. B. 1986. The decline and fall of science in educational administration. Interchange 8: 57-80.
- Gregory, K. L. 1983. Native-view paradigms: Multiple cultures and culture conflicts in organizations. Administrative Science Quarterly 28, 3 (September): 359-376.
- Greiner, L. E. 1972. Evolution and revolution as organizations grow. Harvard Business Review 50 (July-August): 37-46.
- Grieve, Douglas. 1970. A study of student attrition: Part I. Cleveland: Cuyahoga Community College.
- Gross, Edward. 1968. Universities as organizations: A research approach. American Sociological Review 33, 4 (August): 518-544.
- Gross, E., and P. V. Grambsch. 1968. University goals and academic power. Washington, DC: American Council on Education.
- Gross, E., and P. V. Grambsch. 1974. Changes in university organization, 1964-1971. New York: McGraw-Hill.
- Guzzardi, W., Jr. 1979. Demographic good news for the eighties. Fortune 124 (November): 92-106.
- Habayeb, R. A. 1987. Systems Effectiveness. New York: Pergamon Press.
- Hackman, J. Richard, and Wendell S. Dysinger. 1970. Commitment to college as a factor in student attrition. Sociology of Education 43 (Summer): 311-324.
- Hage, J. 1980. Theories of organizations: Form, process, and transformation. New York: Wiley.
- _____. 1988. Futures of organizations. New York: Lexington Books.

- Hallenbeck, Theodore R. 1978. College student satisfaction: An indication of institutional vitality. NASPA Journal 16 (Autumn): 19-25.
- Hall, Richard P. 1982. Organizations: Structure and process, 3d ed. Englewood Cliffs, NJ: Prentice Hall.
- _____. 1978. Conceptual, methodological, and moral issues in the study of organizational effectiveness. Working Paper. SUNY-Albany Department of Sociology.
- Hannan, M. T., and J. Freeman. 1977. Obstacles to comparative studies. In New Perspectives on organizational effectiveness, 106-131. San Francisco: Jossey-Bass.
- Harlacher, E. L. 1984. Counterpoint. AACHC Journal 2 (August/September): 18-28.
- Hartmark, Leif. 1975. Accountability, efficiency, and effectiveness in the State University of New York. SUNY-Albany: Comparative Development Studies Center.
- Hatley, R. V. 1988. Some historical and future perspectives on the role of America's schools, their effectiveness, and their leaders. UCEA Review 41 (June): 4-7.
- Hecklinger, Fred J. 1972. The undecided student--Is he less satisfied with college? Journal of College Personnel 13 (May): 247-251.
- Hirsch, P. M. 1975. Organizational effectiveness and the institutional environment. Administrative Science Quarterly 20, 3 (September): 327-344.
- Hopkins, Frank. 1990. The future: Opportunity not destiny. Futurist 24 (January/February): 37-38.
- Hull, F., and J. Hage. 1982. Organizing for innovation: Beyond Burns and Stalker's organic type. Sociology 16 (4): 564-577.
- Iffert, R. E. 1957. Retention and withdrawal of college students. Washington, DC: Government Printing Office.
- Joerges, Bernward. 1990. Global 2000. Futurist 19 (January/February): 3-20.

- Jones, David B. 1991. The use of cluster analysis in programming: Strategic grouping of students. Journal of College Student Development 32, 4 (July): 292-296.
- Kahn, R. L. 1977. Organizational effectiveness: An overview. New perspectives on organizational effectiveness, Paul S. Goodman, Johannes M. Pennings, and Associates, eds., 235-248, San Francisco: Jossey-Bass.
- Kahn, H., and A. J. Weiner. 1967. The year 2000: A framework for speculation of the next 33 years. New York: MacMillan.
- Keeley, M. 1978. A social justice approach to job attitudes and task design. Administrative Science Quarterly 23, 2 (June): 272-292.
- Keller, George. 1983. Academic strategy. Baltimore: Johns Hopkins University Press.
- Kerlinger, Fred N. 1986. Foundations of behavioral research. New York: Holt, Rinehart and Winston.
- Kilmann, R. H. 1985. Beyond the quick fix. San Francisco: Jossey-Bass.
- Kirchhoff, Bruce A. 1975. Examination of a factor analysis as a technique for determining organizational effectiveness. Proceedings: Chicago Midwest AIDS Conference.
- _____. 1977. Organizational effectiveness measurement and policy research. Academy of Management Review 2, 3 (July): 347-355.
- Kleemann, G. L. 1984. Student perceptions of effectiveness at three state universities. Ph.D. diss., Arizona State University.
- Kleemann, Gary L., and R. C. Richardson, Jr. 1985. Student characteristics and perceptions of university effectiveness. The Review of Higher Education 9, 1: 5-20.
- Korn, W. 1987. Adjusting the 1986 follow-up results. Unpublished report. University of California, Los Angeles.

- Lawrence, Douglas H. 1984. In search of excellence on college campuses. Chronicle of Higher Education. 29 (September 19): 72.
- Lawrence, Paul R., and Jay W. Lorsch. 1969. Organization and environment. Homewood, IL: Irwin.
- Lawrence, Paul R., and Jay W. Lorsch. 1971. Pay and organizational effectiveness: A psychological view. New York: McGraw-Hill.
- Levitt, Theodore. 1983. The globalization of markets. Harvard Business Review 48 (May-June): 92-102.
- Lezotte, L. W. 1986. School effectiveness: Reflections and future directions. Paper presented at the Annual Meeting of the American Educational Research Association, San Francisco, April.
- Likert, Rensis. 1967. The human organization. New York: McGraw-Hill.
- _____. 1961. New patterns of management. New York: McGraw-Hill.
- Lintberg, C. 1984. The management of organizational transitions. Homewood, IL: Irwin.
- Litterer, J. A. 1973. The analysis of organizations. New York: Wiley.
- Locke, E. A., and G. P. Latham. 1984. Goal setting: A motivational technique that works. Englewood Cliffs, NJ: Prentice-Hall.
- Long, T. J., J. J. Convey, and A. R. Shwalek. 1985. Completing dissertations in the behavioral sciences and education. San Francisco: Jossey-Bass.
- Lutz, F. W. 1982. Tightening up loose coupling in organizations of higher education. Administrative Science Quarterly 27, 4 (December): 653-669.
- Mackenzie, K. D. 1978. Organizational structures. Arlington Heights, IL: AHM Publishing.
- Mahoney, T., and W. Weitzel. 1969. Managerial models of organizational effectiveness. Administrative Science Quarterly 14, 3 (September): 357-365.

- Mahoney, Thomas A., and Peter J. Frost. 1974. The role of technology in models of organizational effectiveness. Organizational Behavior and Human Performance 11, 122-138.
- March, James G., and J. P. Olsen. 1977. Ambiguity and choice in organizations. Bergen, Norway: Universitetsforlaget.
- Martin, Nancy K., and Dixon, Paul N. 1991. Factors influencing students' college choice. Journal of College Student Development 32, 3 (May): 253-257.
- Maslow, A. 1954. Motivation and personality. New York: Harper.
- McCorkle, C. O., Jr., and S. O. Archibald. 1982. Management and leadership in higher education. San Francisco: Jossey-Bass.
- McGregor, Douglas. 1960. Human side of enterprise. New York: McGraw Hill.
- Michael, S. R. 1982. Organizational change techniques: Their present, their future. Organizational Dynamics 11 (Summer): 67-80.
- Miles, M. B., and A. M. Huberman. 1985. Qualitative data analysis: A sourcebook of new methods. Beverly Hills: Sage.
- Miles, R., and C. Snow. 1978. Organizational strategy, structure and process. New York: McGraw-Hill.
- Miles, R. H. 1980. Macro organizational behavior. Santa Monica, CA: Goodyear Publishing.
- Miles, Robert H., and Kim Cameron. 1977. Coffin nails and corporate strategies: A quarter century view of organizational adaptation to environment in the U. S. tobacco industry. Working Paper No. 3, Business-Government Relations Series. New Haven, CT: Yale University.
- Mintzberg, Henry. 1978. The structuring of organizations. Englewood Cliffs, NJ: Prentice-Hall.
- Mintzberg, Henry. 1989. Mintzberg on management. New York: Macmillan.

- Miskel, C. G., R. Fevurly, and J. Stewart. 1979. Organizational structures and processes, perceived school effectiveness, loyalty, and job satisfaction. Educational Administration Quarterly 15, 97-118.
- Mitchell, T. R. 1979. Organizational behavior. In Annual Review of Psychology, ed. M. R. Rosenzweig and L. Porter, 30. Palo Alto, CA: Annual Review, Inc.
- _____. 1982. People in organizations: An introduction to organizational behavior. McGraw-Hill series in management. New York: McGraw-Hill.
- Molnar, J. J., and D. C. Rogers. 1976. Organizational effectiveness: An empirical comparison of the goal and system resource approaches. Sociological Quarterly 17 (Summer): 401-413.
- Morgan, G. 1980. Paradigms, metaphors, and puzzle solving in organizational theory. Administrative Science Quarterly 25. 4 (December): 605-622.
- Morgan, Gareth. 1986. Images of organization. London: Sage.
- Mott, Paul E. 1972. The characteristics of effective organizations. New York: Harper and Row.
- Naisbitt, J., and P. Aburdene. 1985. Reinventing the corporation. New York: Warner Books.
- Naisbitt, John , and Patricia Aburdene. 1990. Megatrends 2000: Ten new directions for the 1990s. New York: Morrow.
- Newman, F. 1971. Report on higher education. Washington, DC: HEW.
- Noel, Lee. 1976. College student retention--a campus-wide responsibility. National ACAC Journal 21, 1 (July): 33-36.
- _____. 1980. Retention or retrenchment: An institutional choice for the 1980s. Unpublished paper read before the American College Testing Program's National Seminar on Reducing the Dropout Rate, Irving, TX, February 26.
- Ouchi, W. G. 1980. Markets, bureaucracies, and clans. Administrative Science Quarterly 25, 129-141.

- Pace, C. R. 1984. The quality of college student experience. Los Angeles: Higher Education Research Institute.
- _____. 1979. Measuring outcomes of college: Fifty years of findings and recommendations for future assessment. San Francisco: Jossey-Bass.
- Pantages, Timothy J., and Carol F. Creedon. 1978. Studies of college attrition: 1950-1975. Review of Educational Research 48 (Winter): 48-101.
- Pascarella, E. 1985. Students' affective development within the college environment. Journal of Higher Education 56, 6 (November-December): 640-663.
- Pennings, Johannes M. 1975. The relevance of the structural-contingency model for organizational effectiveness. Administrative Science Quarterly 20, 3 (September): 393-410.
- _____. 1976. Dimensions of organizational influence and their effectiveness correlates. Administrative Science Quarterly 21, 4 (December): 688-699.
- Perrow, C. 1967. A framework for the comparative analysis of organizations. American Sociological Review 32 (April): 194-209.
- _____. 1970. Organizational analysis: A sociological view. Belmont, CA: Wadsworth Publishing.
- Personick, V. A. 1985. A second look at industry output and employment trends through 1995. Monthly Labor Review 108, 11 (November): 26-41.
- Peters, T., and N. Austin. 1985. A passion for excellence. New York: Random House.
- Peters, T. J., and R. H. Waterman. 1982. In search of excellence: Lessons from America's best-run companies. New York: Harper and Row.
- Peterson, R. E., and N. P. Uhl. 1975. Formulating college and university goals: A guide for using the institutional goals inventory. Princeton, NJ: Educational Testing Service.
- Pfeffer, J. 1981. Power in organizations. Marshfield, MA: Pitman Publishing.

- _____. 1982. Organizations and organization theory. Boston: Pitman.
- Pfeffer, Jeffrey. 1977. Usefulness of the concept. In New Perspectives on Organizational Effectiveness, ed. Paul S. Goodman and Johannes M. Pennings, 132-143. San Francisco: Jossey-Bass.
- Pfeffer, J., and G. R. Salancik. 1978. The external control of organizations: A resource dependence perspective. New York: Harper and Row.
- Porter, L. W., E. E. Lawler III, and J. R. Hackman. 1975. Behavior in organizations. New York: McGraw-Hill.
- Prediger, Dale J. 1965. Prediction of persistence in college. Journal of Counseling Psychology 12 (Spring): 62-67.
- Price, J. L. 1968. Organizational effectiveness: An inventory of propositions. Homewood, IL: Richard D. Irwin.
- _____. 1972a. The study of organizational effectiveness. Sociological Quarterly 13 (Winter): 3-15.
- _____. 1972b. Handbook of organizational measurement. Lexington, MA: D. C. Heath.
- Project on the status and education of women. 1982. The classroom climate: A chilly one for women? Washington, DC: Association of American Colleges.
- Ratsoy, E. W. 1983. Assessing effectiveness in educational organizations. The Canadian Administrator 23(3): 1-6.
- Rever, Phillip R., and Lawrence K. Kojaku. 1976. Access, attrition, test scores, and grades of college entrants and persisters: 1965-1973. Research in Higher Education 5 (December): 289-299.
- Richardson, R. C., Jr., D. S. Doucette, and R. R. Armenta. 1982. Missions of Arizona community colleges: A research description. Tempe, AZ: Department of Higher and Adult Education, Arizona State University. ERIC ED 246 715.

- Richardson, R. C., Jr., L. J. Kimball, W. S. Wolf, Jr., and G. L. Kleemann. 1984. Missions and priorities of Arizona Universities: A research report. Tempe: Arizona State University.
- Richardson, R. C., Jr., and G. L. Kleemann. 1983. Student attitudes toward university education in Arizona. Mimeographed paper for the Arizona Town Hall.
- Roelf, Pamela. 1975. Effects of changing age and sex composition of college student bodies. Resources in Education 10 (February): 102.
- Roscoe, John T. 1975. Fundamental research statistics for the behavioral sciences. New York: Holt, Rinehart and Winston, Inc.
- Rosenbaum, Army. 1990. The 1990s: Globalization, automation, education. Futures 19 (January): 36-40.
- Roueche, John E. and George A. Baker. 1985. The success connection: Toward equality with excellence. American Association of Community and Junior Colleges Journal 7, 18-22.
- Rushing, W. A., and M. N. Zald. 1976. Organizations and beyond: Selected essays of James D. Thompson. Lexington, MA: D. C. Heath.
- Salancik, G. R., and J. Pfeffer. 1977. An examination of need satisfaction models of job attitudes. Administrative Science Quarterly 22(3): 427-456.
- Savicki, Victor, Harry Schumer, and Robert E. Stanfield. 1970. Student role orientations and college dropouts. Journal of Counseling Psychology 17 (November): 559-566.
- Sax, Gilbert. 1968. Empirical foundations of educational reserch. Englewood Cliffs, NJ: Prentice-Hall.
- Schneider, B. 1983. An interactionist perspective on organizational effectiveness. In Organizational effectiveness: A comparison of multiple models, ed. K. S. Cameron and D. A. Whetten, 27-54. New York: Academic Press.
- Schoderbek, Peter, Charles Schoderbek, and Asterios Kefalas. 1990. Management systems: Conceptual considerations. Homewood, IL: Richard D. Irwin.

- Schoorman, F. D., and B. Schneider, eds. 1988. Facilitating work effectiveness. Lexington, MA: Lexington Books.
- Schreiber, C. T. 1983. Organizational effectiveness: Implications for the practice of management. In Organizational effectiveness: A comparison of multiple models, ed. K. S. Cameron and D. A. Whetten, 241-259. New York: Academic Press.
- Schuman, H., and S. Presser. 1981. Questions and answers in attitude surveys. New York: Academic Press.
- Scott, R. A., ed. 1984. Determining the effectiveness of campus services: New directions for institutional research No. 41. San Francisco: Jossey-Bass.
- Scott, Richard W. 1977. Effectiveness of organizational effectiveness studies. In New perspectives on organizational effectiveness, 63-95. San Francisco: Jossey-Bass.
- Scott, W. G. 1974. Organization theory: A reassessment. Academy of Management Journal 17(2): 242-254.
- Seashore, Stanley, E., and Ephraim Yuchtman. 1967. Factorial analysis of organizational performance. Administrative Science Quarterly 12 (December): 377-395.
- Seashore, Stanley E., B. P. Indik, and Basil S. Georgopolous. 1960. Relationships among criteria of job performance. Journal of Applied Psychology 44, 3 (June): 195-202.
- Selznick, P. 1969. Law, society and industrial justice. London: Russell Sage Foundation.
- Sexton, Dennis W., and Roy D. Goldman. 1975. High school transcript as a set of non reactive measures for predicting college success in major field. Journal of Educational Psychology 67 (February): 30-37.
- Sharp, Harry W., and Barbara Kirk. 1974. A longitudinal study of who seeks counseling when. College Student Journal 8 (January): 37-45.
- Sheffield, Wesley, and Victor P. Meskill. 1974. What can colleges do about student attrition? College Student Journal 8 (February-March): 37-45.

- Slocum, Walter L. 1956. Social factors involved in academic mortality. College and University 32 (Fall): 53-64.
- Smith, D. A. 1975. Comparison of new students at women's colleges and coeducational schools. Unpublished report, Scripps College, Claremont, CA.
- _____. 1990. Women's college and coed colleges. Is there a difference for women? Journal of Higher Education 6 (2): 181-194.
- Smith, K. G., T. R. Mitchell, and C. E. Summer. 1985. Top level management priorities in different stages of the organizational life cycle. Academy of Management Journal 28 (4): 799-820.
- Smith, K. K. 1982. Groups in conflicts: Prisons in disguise. Dubuque, IA: Kendall/Hunt.
- Spray, S. L. 1976. Organizational effectiveness: Theory, research, and application. Kent, OH: Kent State University Press.
- Stage, Frances K. 1991. Common elements of theory: A framework for college student development. Journal of College Student Development 32, 1 (January): 56-61.
- Starr, Ann M., Ellen L. Betz, and John W. Menne. 1971. College student satisfaction questionnaire manual. Ames, IA: Central Iowa Associates.
- Steers, R. M. 1975. Problems in the measurement of organizational effectiveness. Administrative Science Quarterly 20, 4 (December): 546-558.
- _____. 1977. Organizational effectiveness: A behavioral view. Santa Monica, CA: Goodyear Publishing.
- Stern, George G. 1970. People in Context. New York: John Wiley and Sons, Inc.
- Stephenson, W. Robert. (1990). A study of student reaction to the use of mini tabs in introductory statistics course. The American Statistician, 44, 3 (August): 231-235.
- Stickel, Sue A., and Bonett, Rhonda M. 1991. Gender differences in career self efficacy: Combining a career with home and family. Journal of College Student Development 32, 4 (July): 297-301.

- Strand, K. 1983. The case for women's colleges. Washington, DC: The Women's College Coalition.
- Sturtz, Sue Ann. 1971. An analysis of age differences in college student satisfaction. Journal of College Student Personnel 12 (May): 220-222.
- Tatsuoka, Maurice M. 1973. Multivariate analysis in educational research. In Review of research in education, ed. Fred N. Kerlinger, 32. Itasca, IL: F. E. Peacock Publishers.
- Taylor, F. W. 1967. The principles of scientific management. New York: W. W. Norton.
- Thompson, J. D. 1967. Organizations in action. New York: McGraw Hill.
- Tidball, M. E. 1973. Perspective on academic women and affirmative action. Educational Record 54, 2 (Spring): 130-135.
- _____. 1974. The search for talented women. Change 6, 4 (May): 51-52.
- _____. 1976. Of men and research. Journal of Higher Education 47 (July-August): 373-389.
- Tinto, V. 1986. The college dropout. Chicago: University of Chicago Press.
- Toffler, A. 1983. Previews and premises. New York: Bantam Books.
- _____. 1970. Future shock. New York: Random House.
- Tosi, H. L., J. R. Rizzo, and S. J. Carroll. 1986. Managing organizational behavior. Boston: Pittman.
- Uhl, N. P. ed. 1983. Using research for strategic planning: New directions for institutional research No. 37. San Francisco: Jossey-Bass.
- Van de Geer, John P. 1971. Introduction to multivariate analysis. San Francisco: Freeman.
- Van de Ven, A. H., and D. Ferry. 1980. Measuring and assessing organizations. New York: Wiley.

- Van de Ven, A., A. Delbecq, and R. Koenig. 1976. Determinants of coordination: Modes within organizations. American Sociological Review 41 (April): 322-328.
- Warner, W. Keith. 1967. Problems in measuring the goal attainment of voluntary organizations. Journal of Adult Education 19, 3-14.
- Warren, J. R. 1983. Meeting the new demand for standard. New directions for higher education. San Francisco: Jossey-Bass.
- Webb, Ronald J. 1974. Organizational effectiveness and the voluntary organization. Academy of Management Journal 17, 4 (December) 663-677.
- Weick, Karl E. 1979. The social psychology of organizing. Reading, MA: Addison-Wesley.
- Weick, K. E. 1976. Educational organizations as loosely coupled systems. Administrative Science Quarterly 21, 1 (March): 1-19.
- _____. 1977. Re-punctuating the problem. In New perspectives on organizational effectiveness, ed. Paul S. Goodman and Johannes M. Pennings, 193-225. San Francisco: Jossey-Bass.
- Wirthlin, R. B. 1975. Public perceptions of American business systems: 1966-1975. Journal of Contemporary Business 4 (Summer): 1-14.
- Women's College Coalition. 1981. A study of the learning environment at women's colleges. Washington, DC: Women's College Coalition.
- Yuchtman, Ephraim, and Stanley Seashore. 1967. A system resource approach to organizational effectiveness. American Sociological Review 32 (December): 891-903.
- Zammuto, R. F. 1982. Assessing organizational effectiveness: Systems change, adaptation, and strategy. Albany: SUNY-Albany Press.