NON-ACADEMIC INSTITUTIONAL VARIABLES RELATED TO DEGREE COMPLETION OF NON-TRADITIONAL AGE UNDERGRADUATE STUDENTS

DISSERTATION

Presented to the Graduate Council of the

University of North Texas in Partial

Fulfillment of the Requirements

For the Degree of

DOCTOR OF EDUCATION

By

Rebecca Ann Walts, B.A., B.S., M.S.

Denton, Texas

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A study was conducted at The University of Texas at Arlington to obtain measurements of non-traditional age undergraduate students using the Mattering Scales for Adult Students in Higher Education (MHE). The MHE is designed to assess the perceptions of adult students on how much they matter to the institution they are attending. The study also sought to determine if "mattering" and other selected non-academic variables associated with the university environment are perceived by non-traditional age students to effect their likelihood of completing their baccalaureate degree. Nine hundred non-traditional age undergraduate students (26 years of age and older) were surveyed. A 32.4% response rate was achieved and 99.3% of the survey respondents indicated they intend to persist to graduation.

Of the five subscales surveyed by the MHE, significant statistical differences were found to exist in the Administration, Interaction With Peers, Multiple Roles, and Faculty subscales denoting an interaction between gender and minority status. Significant statistical differences were also found by gender on the Advising subscale and by minority status on the Faculty subscale.

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CHAPTER 1

INTRODUCTION

Background of the Study

The American college student population has changed greatly over the last 20 years. As of 1993, 85% of all college students commute to school versus living on campus. According to Jacoby (1996), fewer than 15% of college students are 18 to 22 years old (considered by some as "college age"), live on-campus, and study full-time. Currently, half of all college students are over 25 years of age and study on a part-time basis. A majority of today's college students also work full- or part-time while attending school. The higher education literature and popular press frequently refers to these new college students as "non-traditional" students. So dramatic are the changes in demographics in the past 20 years that the growth and survival of many universities are now dependent upon their ability to attract and retain these non-traditional age students (Hughes, 1983).

If the recruitment of non-traditional age students is so important to many institutions' growth and well-being, what changes have these universities made to adapt to today's non-traditional students? For example, do today's non-traditional age students receive the same consideration from administrators and access to student service programs and university facilities as traditional age residential students have in the past and continue to receive? Since a majority of today's faculty and administrators studied full-

time in residential settings, is their mind-set appropriate for who today's students are and who their institutions need to serve? Today, less then 20% of all college students are receiving their education under the conditions that were prevalent 20 years ago (Wittkopf, 1994). Thus, a study that determines the effect of non-academic variables on non-traditional age students' persistence could assist administrators in improving non-traditional age student satisfaction and retention rates. If institutional characteristics have differing effects on non-traditional age students than they do on traditional age students, this information has important implications for program development and revision of current policy to increase student degree persistence and, ultimately, graduation rates.

The concept of "mattering" was conceived by Rosenberg and McCullough (1981) to help define the degree to which individuals feel they are important to others or how much they "matter." Mattering is defined in the literature as "the beliefs people have, whether right or wrong, that they matter to someone else, that they are the object of someone else's attention, and that others care about them and appreciate them" (Schlossberg, Lynch, & Chickering, 1989, p. 21). Schlossberg, Lynch, and Chickering (1989) felt that adult learners would be helped to feel they matter if institutions made policy and programmatic changes that reflected the five dimensions of mattering identified by Rosenberg and McCullough (1981): attention, importance, dependence, ego-extension, and appreciation (Schlossberg, Waters, & Goodman, 1995). Schlossberg and Warren (1985) determined that a feeling (perception) of mattering can keep adult students engaged. "The Mattering Scales for Adult Students in Higher Education"

(MHE), developed by Schlossberg, Lassalle, and Golec (1989), can be used to determine the extent to which adult learners feel they matter to an institution. The MHE can also be used to determine if those high in mattering (i.e., those who feel the educational environment is responsive to their needs) have a lower dropout/stopout rate than those adult learners who score low on the mattering scales (Schlossberg, 1989). Knowing if non-traditional students perceive that they matter to the university may help college officials develop and improve programs and/or policies to assist students in persisting to graduation. This increased student retention not only will help more students achieve their educational goals but also help the institution maintain an enrollment compatible with its fiscal requirements.

Statement of the Problem

The problem to be addressed in this study is the perception of non-traditional adult students on how much they matter to the institution they are attending and to determine if "mattering" and other selected non-academic variables associated with the university environment are perceived by these students to effect their likelihood for completing their degree. The University of Texas at Arlington (UT-Arlington) has a large number of students who are considered non-traditional age. As of Fall 1997, 42.9% of the student population would be considered non-traditional age (UT-Arlington, 1997). Additionally, the mean age of the student population has been 26 year of age since 1991 (UT-Arlington, 1996).

Non-traditional age students (26 and older) have more life experiences than traditional age students. Due to these life experiences, non-traditional age students are more likely to select a university for the non-academic variables, when institutional characteristics (cost of attending and proximity to a student's residence) are held constant (Ordovensky, 1995). Further, "the rising costs of higher education are causing urban residents to want higher education more readily available in the metropolitan areas where they are currently living" (Dluhy & Maidique, 1993, p. 150).

Purpose of the Study

The purpose of this study is to examine non-academic variables that effect non-traditional age college students at UT-Arlington and to determine their perceived importance in the degree persistence process. With the exclusion of academic degree programs, non-academic variables related to characteristics of the university environment were examined to determine if they are considered important by non-traditional age students. Specifically, the study sought to determine if selected variables related to administration—advising, interaction with peers, multiple life roles, and interaction with faculty—are important to students of UT-Arlington with respect to their perceived likelihood of completing their degrees at UT-Arlington.

Research Questions

In order to accomplish this study's purpose, the research design was guided by the following research questions:

1. Which non-academic variables and/or characteristics of the university environment will non-traditional age undergraduate students consider to be important to their Bachelor's degree completion at UT-Arlington?

2. Are the MHE scores of non-traditional age undergraduate students at UT-Arlington related to their perception of the likelihood that they will complete their baccalaureate degrees?

3. Are there differences in mattering scores by gender and ethnicity?

Significance of the Study

Enrollment at UT-Arlington has been declining. Fall 1997 enrollment is down 6.1% from Fall 1996, Fall 1996 enrollment was down 6.8% from Fall of 1995, and Fall 1995 enrollment was down 5.0% from the Fall of 1994 (UT-Arlington, 1997). UT-Arlington has a freshman to sophomore retention rate of 51.7% (Fall 1993), a five-year graduation rate of 19.6% (Fall 1990), and a six-year graduation rate of 28.3% (Fall 1989) (UT- Arlington, 1996). It would be valuable to determine which non-academic variables effect student satisfaction, and whether these variables influence the non-traditional age student population in persistence to degree completion. The MHE identifies critical aspects of an institution's response to the needs of adult learners, determines whether their needs are met, and highlights areas where adult learners perceive deficiencies in the college's offerings (Schlossberg, Lassalle, & Golec, 1989). This instrument provides a means for evaluation of the institutional environment and specific aspects of campus activities. Therefore, an assessment of non-traditional age

students using the MHE would help provide UT-Arlington with valuable information about a population that is important to the university.

There are many colleges located in the Dallas-Fort Worth area (two-year, four-year, public, private, church-related, and vocational/technical schools) from which students may select;. therefore, UT-Arlington is located in a competitive marketplace. Through enrollment management, administrators can proceed with more accurate long-range planning. Further, since budgets are determined in advance by current enrollment, a more stable financial picture may result. If non-academic variables are better understood as to their importance and effect on student satisfaction and persistence to degree completion, retention and graduation rates could be improved.

Additionally, much research has been devoted to the personal gains that residential students achieve while attending institutions of higher education. Administrators need to be able to provide the same gains to non-traditional age students by providing adequate programs, facilities, and services to the "new majority" of students (Arnold, Kuh, Vesper, & Schuh, 1993). This research will contribute to the understanding of how these "new majority" or non-traditional age students perceive that they matter to their institution.

Definition of Terms

The following terms have been defined for this study:

Adult student—the same as a non-traditional age undergraduate student.

Characteristics of the university environment—those characteristics of the university environment that are unique to it. These include such aspects as the current administration, the traditions of the university, its location, and the physical layout of the campus.

Commuter students—students who do not live in university-owned housing and must commute by automobile or bus to the campus in order to attend class, use campus services, and/or participate in on-campus programs and activities.

Degreed undergraduate students—refers to college students who have already received a Bachelor's degree and are enrolled in an undergraduate degree program.

Mattering—how much adult students perceive their importance to the university they attend.

Minority students—those students who are considered non-white on demographic information voluntarily reported to the UT-Arlington Registrar's Office.

Non-academic dimensions—same as non-academic variables.

Non-academic variables (dimensions)—those variables (dimensions) defined in the MHE. Five scales were designed to assess perceptions of adult learners in the areas of administration, advising, peers, multiple roles, and faculty.

Non-minority students--those students who are considered white on demographic information voluntarily reported to the UT-Arlington Registrar's Office.

Non-traditional age students—refers to college students who are 26 years of age and older and enrolled in an undergraduate degree program

Traditional age students—refers to college students who are 18 to 22 years of age and enrolled in an undergraduate degree program.

Limitations

One limitation of the study will be that the individuals who will be surveyed may have limited experience with some aspects of the campus environment (i.e., administration, advising, and faculty) and therefore provide responses based on inaccurate information. Further, this study is limited to those students over 26 years of age and who have completed at least 30 hours at UT-Arlington. Non-traditional age undergraduate students with fewer than 30 completed hours have been excluded from the study.

Delimitations

A delimitation of the study will be the ability to generalize any results to other institutions since this research is specific to non-traditional age students attending UT-Arlington.

CHAPTER 2

REVIEW OF THE LITERATURE

In order to provide a comprehensive background of non-traditional age students in higher education, nine areas of literature were reviewed. These areas included: 1) historical background of non-traditional age students in higher education; 2) factors that have influenced the increase of non-traditional age students in higher education; 3) characteristics of non-traditional age commuter students; 4) educational concerns of non-traditional age students; 5) American higher education is structured to serve residential, traditional age students; 6) studies pertaining to differential needs of non-traditional age students versus residential traditional age students; 7) implications for specific student services and programs; 8) studies pertaining to college selection and persistence; and 9) studies conducted at UT-Arlington. Although this study will not be examining the population of commuter students specifically, selected commuter student research is included since a majority of non-traditional age college students are also commuting students.

Historical Background of Non-traditional Age Students in Higher Education

Historically, colleges and universities were created to educate the country's 17 to 22 year old students (Werring, 1987). Even though traditional age students still attend American colleges and universities in record numbers, what has occurred in the

demographics of the participants in American higher education is nothing short of an "educational revolution" (Schlossberg, Lynch, & Chickering, 1989). There has been an "age shift" from limited numbers of non-traditional age students attending institutions of higher education, to an estimate that approximately one-third of all students at the undergraduate level in the 1980s were over the age of 25 (Kasworm, 1980). Estimates place adult students over the age of 30 to reach 500,000 by the year 2000 (Snyder & Hoffman, 1995). Adult students, also called the "new-majority," are defined as college students who are older than 25 years of age, live off-campus, work more than 20 hours per week, have families, and attend school part-time (Arnold et al., 1993). It is estimated that, in the 1990s, undergraduates over the age of 26 would outnumber the traditional age students (18-22) in higher education (Schlossberg, Lynch, & Chickering, 1989).

The twentieth century saw the greatest expansion of institutions of higher education; however, for several reasons, the greatest change occurred after World War II (Kaplin, 1985). First, an increase in the use and development of science and technology demanded a more technically-trained individual, prompting the creation and growth of institutions of higher education to train teachers of the new technologies (Domonkos, 1989).

Second, higher education growth was vastly effected by the G.I. Bill of 1944, which brought veterans on to campuses for the first time (Brodzinski, 1980; Kaplin, 1985). The G.I. Bill offered former military personnel the financial assistance necessary to benefit from higher education (Eddy, 1993). It was estimated that, during the period

of 1945 to 1946, 27.6% of the undergraduate population were veterans (Kasworm, 1980).

Governmental interaction was also seen in the form of subsidies in research projects, construction, and tuition benefits (Domonkos, 1989). Further, the federal government became involved in higher education through several landmark legal cases. The key case in forging student status was *Dixon v. Alabama State Board of Education* in which the court:

> . . . rejected the notion that education in state schools is a "privilege" to be dispensed on whatever conditions the state in its sole discretion deems advisable; it also implicitly rejected the *in loco parentis* concept under which the law had bestowed on schools all the powers over students that parents had over minor children. (Kaplin, 1985, p. 224)

Therefore, since many students now attending colleges and universities were student-veterans and were non-traditional age students (over 25 years old), it became necessary to lower the age of majority (Kaplin, 1985).

Due to projections for smaller numbers of students in the traditional 18 to 22 year old age groups, administrators that were interested in institutional survival sought out students by expanding curricular offerings and by adapting mission statements to expand their focus (Snyder & Hoffman, 1995). Some of the curricular changes included vocational certification programs, night and weekend classes, and off-campus class locations to accommodate non-traditional students (Bean & Metzner, 1985).

Today's universities must respond to the increasing demands placed on them by society. Universities are expected to respond to many contemporary societal problems such as: economic competitiveness, improved education for the public at-large, providing governmental leadership, collaboration with industry, and research (Hathaway, Mulhollan, & White, 1995). To respond to these needs, today's metropolitan university has evolved (Johnson & Bell, 1995). Besides the likelihood of being located in an urban area, the metropolitan university has characteristics that differ from institution to institution, yet each contains one unifying aspect: a commitment to the surrounding area and a willingness to accept a leadership role in responding to community needs through a variety of mechanisms such as flexible course offerings, adaptation to the student population, and research relevant to the urban area, state, and country (Johnson & Bell, 1995). Further, four types of universities exist today to serve our populations. They are institutions created as a part of a central city prior to World War II, institutions created as independent universities after World War II, institutions established as branches of a major university system to serve a metropolitan area, and institutions originally created for a special purpose who have expanded their mission to serve a population center (Johnson & Bell, 1995).

Factors That Have Influenced the Increase in Non-Traditional Age Students in Higher Education

Economic, Institutional, Curricular, Social, and Political

There are several factors that have contributed to the increase in non-traditional age students. Institutional, curricular, political, economic, and social factors have led to

the dramatic rise in the enrollment levels of students in higher education (Bean & Metzner, 1985). Some adults return to school with a specific career goal in mind, while others return for socialization in an educational environment (Aslanian, 1989; Rhatigan, 1986). Non-traditional age students are coming back to campuses due to job layoffs, potential career enhancement, and for personal growth (Breese & O'Toole, 1995). According to Chickering (1974) the increased complexity of society, coupled with the variety of jobs requiring advanced technical skills, have created a new developmental potential for older students not previously available.

The number of adult students in higher education has increased steadily since the 1950s (Kasworm, 1980). Adult student involvement can be attributed to a concern for lifelong learning, mid-life career changes, the necessity to obtain technical expertise to avoid obsolescence in the job market, a diminishing youth population, and recruitment by universities of a previously untapped market of students (Buckey, Freeark, & O'Barr, 1976; Kasworm, 1980; Snyder, 1995).

In a study of 2,000 adult Americans conducted by Aslanian (1989), 60% of the respondents considered career transition as the reason for their learning. Aslanian further reports that changes in the family, such as divorce, death or serious illness of a loved one, and career changes, such as loss of employment or geographic moves, accounted for 90% of the reasons this adult population attended an institution of higher learning. A transition from one lifestyle to another has caused many women to participate in higher education (Breese & O'Toole, 1995).

Of all of the influences, economic factors have been the most prevalent reason older students return to pursue additional education (Rhatigan, 1986). Aslanian (1989, p. 6) states:

> . . . societal changes have created upheaval in individual lives. The accelerating pace of change has made adult life far from a stagnant experience. Many lives have become more turbulent as change affects population, mobility, technology, occupations, housing income, family, life expectancy, and government.

Further, an individual's work-life expectancy has increased. Schlossberg, Lynch, and Chickering (1989, p. xii) state:

> At the turn of the century, men could expect to work until they were forty-eight and women until they were fifty. Now worklife expectancy extends into the sixties, and new retirement legislation legitimizes continued employment until age seventy or beyond. The one life/one career pattern that has prevailed until now is giving way to a pattern of pursuing multiple careers.

According to Miller (1986), there are several institutional factors for the increase in non-traditional age students versus the traditional age residential students. In order to increase and maintain enrollment, students have been recruited who might not normally attend a university (Bean & Metzner, 1985; Miller, 1986). To attract students from an older, adult population requires a more sophisticated approach than is currently used with traditional age students (Berner, 1980). Berner (1980, p. 57) states that the marketing ". . . involves identifying the potential student (customer) and informing him that the college has the class or program he needs (selling the product)." Berner

suggests surveying the different occupations and services where there is no current educational program available in order to design one. Use of the survey approach created the paralegal training program, for example, that is in use today (Berner, 1980).

According to Astin (1977) institutions, both public and private, have helped increase the number of commuter students on many campuses. Institutions, expanded their residential facilities during the late 1950s and early 1960s (Astin, 1977). This construction was spurred on by assistance from the state and federal government. Astin (1977, p. 249) states:

> This trend was almost entirely reversed in the late 1960s and early 1970s, . . . by at least two factors. First was the students movement of the 1960s, which prompted many students to opt for living in private rooms rather than dormitories to escape parietal rules, a tendency encouraged when many institutions abandoned residence requirements. Second was the moratorium on federal and, in many cases, state support for dormitory construction.

The type of program or curriculum that non-traditional age students choose to participate in are varied. Some adults find that traditional college majors and programs meet their educational needs (Shannon, 1986). However, according to Greenland (1992), many adults are attracted to programs such as the "University Without Walls," which utilizes flexibility for attracting returning students.

Social factors have also contributed to the increase in non-traditional age students in higher education. Major social changes, such as wars and single parent households, have sent a diverse student population to institutions of higher education (Bean &

Metzner, 1985; Schlossberg, Lynch, & Chickering, 1989). "Since World War II there has been both an explosion in numbers and in the cultural, economic, and ethnic backgrounds among students seeking admission to, and success through, the two-year and four-year colleges and universities of the United States" (Chickering, 1974, p. 4). Further, Chickering notes that, due to this change in the social fabric of our country, a new developmental period, that of a young adult, has been formed.

Political factors have also influenced the increased enrollments of older students (Bean & Metzner, 1985). After the Allied victory in World War II, additional support for democratic institutions resulted (Bean & Metzner, 1985). Another political factor, which characterized "education for all," as reported by the Truman Commission Report of 1947 entitled *Higher Education for American Democracy*, spurred enrollment (Trivett, 1974). As mentioned previously, the G.I. Bill of 1944 became a means of access for veterans who would not have had the opportunity in past years to attend college (Kaplin, 1985). The effect of the G.I. Bill was vast. "In 1940 there were approximately 1.5 million degree students enrolled in institutions of higher education; by 1955 the figure had grown to more than 2.5 million and by 1965 to more than 5.5 million" (Kaplin, 1985, p. 6).

Another political factor in educational history was the launch of the Sputnik space capsule by the Russians (Kasworm, 1980). This became a political embarrassment to the United States which resulted in the increase in the number of adults students entering colleges and universities to pursue science-related fields (Bean & Metzner, 1985; Kasworm, 1980). Bean & Metzner (1985, p. 287) state:

This event gave impetus to the passage of the National Defense Act of 1958, followed by the Higher Education Act of 1965. Both acts endorsed the political view that encouraging college attendance promoted the general welfare of the nation and that the federal government, in addition to state governments, had a legitimate role in financially supporting higher education institutions. More recently, Basic Educational Opportunity Grants, which were part of the Higher Education Act Amendments of 1972, the Pell Grants which followed, and a variety of state financial aid programs indicated the continued political legitimacy of providing resources to many non-traditional students.

The Americans with Disabilities Act of 1990 removed architectural and programmatic barriers that had previously made it difficult, if not impossible, for individuals with disabilities to attend institutions of higher education. Accommodations are now being made on an individual basis, accompanied by documentation by the appropriate medical professional, to assist people with disabilities in attending colleges and universities to the extent that note takers, extended test taking time, a change of venue for tests, and sign language interpreters, for example, are made available to students at no charge (UT-Arlington, 1995a).

Demographics

The last factor discussed in the literature concerning the increase in the number of non-traditional age students attending institutions of higher learning is demographics. By definition, the word "non-traditional" denotes a change in how college students are viewed. Gone are the days of a college or university with only full-time students of 18

to 22 years of age (Hughes, 1983). According to Brodzinski (1980), the majority of our population will soon be classified as middle-aged. This increase in the average age for the population also signals a decrease in the number of traditional-age students (Aslanian, 1989; Hesburgh, 1983; Snyder & Hoffman, 1995). Most important, higher education will need to respond to non-traditional age students by providing the necessary student services to assist older students with their educational goals (Werring, 1987). In the past, adults participated in higher education, however, their studies were usually confined to non-credit, evening, or off-campus programs, hence, the non-traditional age student maintained a low campus profile (Knox, 1980). Programs need to be increasingly representative of the total population and student services practitioners must have a comprehensive understanding of adult learning development (Knox, 1980).

One of the fastest growing groups of students is that of "reentry women"—women over the age of 24 (Harrington, 1993; Kasworm, 1980). While social integration models have always been important for retention in traditional-aged students (Tinto, 1975; Pascarella, 1980), this particular group, according to Harrington (1993), has an external support group through friends, family, or their employers. In a tutorial session for returning students, sponsored by Duke University, it was determined that a majority of the women in the group have husbands and children in professional career positions, all of whom have proved to be encouraging influences in their return to higher education (Buckey et al., 1976).

Women attending college is not a new phenomenon. Between 1960 and 1972, the number of women age 25 to 34 who entered higher education tripled (Kasworm, 1980).

Further, it can only be estimated, since statistics for this age group were not yet tabulated, that women age 35 years and older had similar enrollment increases during the same time period (Woman's Bureau, 1974).

Characteristics of Non-Traditional Age Commuter Students

Commuter students today represent the majority of students attending institutions of higher education on most campuses (Jacoby, 1996). It is estimated that 80% of undergraduate students are commuter students (Likins, 1991; Stewart & Rue, 1983). According to Jacoby (1996, p. 31):

> . . . almost half of all college students are over twenty-five and attend part-time. In addition, 40 percent of all bachelor's degrees are awarded each year to part-time students. Over two-thirds of all students work while attending college, with significantly more commuter students working more than 30 hours per week and/or at more than one job.

Non-traditional age commuter students are a diverse group and therefore difficult to define and service (Educational Facilities Laboratory, 1977; Hughes, 1983). They can be from any part of the country, from rural or urban areas, wealthy or impoverished, or from a variety of ethnic backgrounds, male or female, unemployed, working full- or part-time, enrolled in degree, non-degree, vocational, or avocational programs (Bean & Metzner, 1985); second-degree students, career changers, and continuing education students (Knefelkamp & Stewart, 1983); graduate students, handicapped students, and veterans (Educational Facilities Laboratories, 1977). Commuter students also tend to be the first generation of college students in their families and may come from

backgrounds that are considered "blue-collar" versus the families of residential students which may be college graduates (Smith, 1989). Many commuter students are working professionals with college degrees who are interested in career advancement or pursuing personal goals (Rhatigan, 1986). There is a commonality to commuter students which are issues and concerns related to transportation that limit their time on campus, multiple life roles, and developing a sense of belonging on the campus (Jacoby, 1989).

Stewart and Rue (1983) helped define commuters students through the use of three distinguishing variables. The first variable is dependence versus independence and has the most bearing on the commuter students' interaction with the university. Dependent students live at home or with a relative who has some parental responsibilities. The second demographic variable is whether the commuter student is traditional or non-traditional. Traditional students would be those associated with the 18 to 22 year old age group. Non-traditional students are defined as those students who are 25 and older. The final variable is whether the commuter student is attending school full-or part-time. Bean and Metzner (1985) define a non-traditional student as older than 24, who does not live on campus, and is considered a part-time student, or a combination of the three factors.

The label "commuter student" has carried a negative connotation since the term was first used due to the constant comparison to residential students, which are considered the norm (Smith, 1989). Many misconceptions exist concerning commuter students. Commuter students are commonly called "townies" or day students (Stewart & Rue, 1983). This refers to a student who still lives at home and who has been given

provisional or conditional admission to the university (Stewart & Rue, 1983). Some administrators still equate commuter students with students of the 1960s who petitioned to live off-campus (Astin, 1977).

Commuter students have been considered a homogeneous population which has led to many myths being created about them (Rhatigan, 1986). These myths consider commuting students to be less committed to their education, less able academically, having no interest in campus activities, and, since many commuting students attend part-time, it costs less to provide instruction and student services (Rhatigan, 1986). The most pervasive reason why commuter student myths are in existence is because most student development theory and research is grounded on the assumption that attending school as a traditional, residential student is the normative college experience (Knefelkamp & Stewart, 1983; Pascarella, Duby, Terenzini, & Iverson, 1983). Additionally, of the research conducted on commuter students, the results have been generalized to the entire population. The population of commuter students is too diverse and contains too many sub populations to make generalizations (Smith, 1989).

Knefelkamp and Stewart (1983) discuss several assumptions about commuter students which effects their inclusion in research. The first assumption is that, by definition, a college student is one who resides in a residence hall (Likins, 1991). The second assumption is that any characteristic associated with residence hall living is positive (Likins, 1991). Third, those characteristics associated with residence hall living facilitates development and are attributable exclusively to this type of living arrangement. Lastly, commuter students are studied in terms of their differences from residential

students, rather than as a unique, diverse population (Knefelkamp & Stewart, 1983). It is suggested that commuter students need to be studied to better appreciate their diversity and to correct student development theory that seems to exclude them (Knefelkamp & Stewart, 1983; Likins, 1991)

Educational Concerns of Non-Traditional Age Students

Non-traditional age students may have different academic patterns than residential, traditional age students. One such pattern involves "stopping out" (Matthews, 1985). According to Stokes and Zusman (1992), stopouts are defined as students that are readmitted to the university after dropping out. Stokes and Zusman consider stopouts important for two reasons. First , they effect retention rates. It is hard to get a true picture of retention rates unless stopouts, those individuals who return, are considered (Stokes & Zusman, 1992). Students may stopout due to a course lacking relevance to career aspirations, work or school scheduling conflicts, and financial problems (College Board News, 1985). Non-traditional age students must face the task of balancing several important commitments at one time (Wilmes & Quade, 1986; Wolfe, 1993). Unlike residential students who are concentrating full-time on school, education is just one of the many aspects of a non-traditional age students' multiple life roles (Andreas, 1983).

Second, from the student's point of view, graduation rates published for most associations and agencies (e.g., American Council on Education, College Council, U.S. Department of Education Higher Education Survey, National Collegiate Athletic Association) are reported in five-year rates (Stokes & Zusman, 1992). Stokes and Zusman

suggest that the Student's Right-To-Know Act requiring four-year colleges to publish their six-year graduation rates, instead of five-year, may assist students who have stopped out to understand they can persist to degree completion. Stokes and Zusman (1992) report that, in order to increase the likelihood of stopouts returning to the university, administrative ease in waiving fees, quicker readmission procedures, or the elimination of paperwork in readmission altogether, should be considered.

Johnson and Pritchard (1989) suggest the implementation of a division within the university admissions department, especially for adult students. This division would offer special orientation programs and information at times that would best accommodate a variety of adult student schedules (Johnson & Pritchard, 1989).

Stewart (1995) suggests that the use of technology by universities may be beneficial in assisting non-traditional age students. Technology can be used to improve student access to business operations and to campus computing resources such as data bases, electronic mail, and library resources (Stewart, 1995). However, along with the increase in technology is the controversy that the traditional mentoring roles of faculty and administrators cannot be replaced by technology and students may miss out on many different aspects of campus life (Stewart, 1995).

Several studies have examined the interaction between the student and the college environment and the importance in student retention (Astin, 1984; Bean & Metzner, 1985). Astin (1984) examined student involvement, defined as physical and psychological energy, and how it can be a positive factor in student retention. To determine student retention, Bean and Metzner (1985) developed a conceptual model using the variables:

1) high school grade point average, 2) a student's intent to leave or stay in school, 3) student background, and 4) environmental influences. Gold (1995) studied the effects of students families, their impact on success at the university, the problems associated with separation from home, and individual identity development. To assist in student retention, the family theory-informed approach—in conjunction with a three generation genogram to illustrate family themes, patterns of behavior, and myths—is used to aid students in understanding family patterns and to change dysfunctional patterns of thinking and behavior (Gold, 1995).

Family may not have an negative impact on some non-traditional age women students. In fact, according to Harrington (1993), an external support system, such as a family or friends, may assist the reentry women student in academic persistence. In this study, Harrington found that social integration had little to do with retention. What was determined to be of importance in persistence was the specificity of educational goals and a sense of commitment to completion of that goal (Harrington, 1993).

In a study conducted at a Canadian university, it was determined that environmental factors, such as the quality of instruction and class topics viewed to be pertinent to career goal success, were more likely to have a positive effect on student desired outcomes than social interaction (Grayson, 1994). The study also found that the number of out of class contacts with faculty members did not impact outcomes as greatly as previously reported by Iverson, Pascarella, and Terenzini (1984). In residential institutions, academic and social involvement effect different students in different ways; however, it may contribute to the overall desired outcomes such as persistence and academic

attainment (Pascarella & Terenzini, 1991). In commuter institutions, the amount of social involvement is greatly reduced, so improvements in curriculum and teaching would have advantages for students and the institution alike (Grayson, 1994). Since non-traditional age students typically are not involved in extracurricular activities, academically oriented contact with faculty is the most common form of social involvement for this population (Chickering, 1974; Pascarella, Duby, Miller, & Rasher, 1981) and non-traditional age students identify more with the academic community than do residential students (Davis & Caldwell, 1977). The lack of social interaction between students and faculty was found to be more of a social science phenomena, suggesting the possibility that certain types of personalities either require more social contact or are more socially integrated (Iverson et al., 1984). Further, it is suggested that on a commuter campus, the classroom environment is at the center of student success and satisfaction and requires the most institutional attention (Gold, 1995).

Informal social interaction between faculty and students which focuses on academic goals were not as prevalent for non-whites as whites at commuter institutions (Iverson et al., 1984). "One possible explanation for these results is suggested by the correlation of academic contact and race" (Iverson et al., 1984, p. 11). The correlation suggests that non-white students have somewhat less frequent academic contact with faculty members than whites (Iverson et al., 1984). Additionally, the authors suggest that it is possible that a minimum or threshold amount of contact is necessary before any socializing influences can take place (Iverson et al., 1984).

American Higher Education is Structured to Serve Residential Traditional Age Students

The traditional residential institution served as an extension of the family for students during their four years of undergraduate studies (Chickering, 1974). The college community—consisting of students, faculty, and staff—created a nurturing environment that helped the students transition to the adult community (Chickering, 1974). Traditionally, undergraduate academic and student personnel services have been oriented to the young adult who studies full-time and resides in on-campus housing because that was the majority population (Kasworm, 1980; Nayman & Patten, 1980).

Many university campus services, including health centers, housing information, student activities, and orientation/registration divisions, operate under the assumption that the population they serve is a full-time, residential student (Andreas, 1983; Kasworm, 1980). Many of today's college administrators had undergraduate experiences at traditional, residential institutions (Andreas, 1983). As undergraduates, today's college leaders ". . . spent most of their time on campus and had abundant opportunities to create a collegiate experience replete with intellectual, social, emotional, cultural, recreational, moral, and educational experiences" (Andreas, 1983, p. 10). The traditional organizational structure of American universities is built on a history of working with full-time, on-campus, traditional age students and is not easily changed (Schlossberg, Lynch, & Chickering, 1989). An example of this tradition is in the text of the 1995-1997 edition of a school catalog which states that the hours of the Information and Visitor Center are from 8 a.m. to 5 p.m., Monday to Friday; therefore, students

arriving on campus after 5 p.m. or on weekends would not be assisted (UT-Arlington, 1995).

Institutional response to the increasing numbers of non-traditional age students has been inappropriate and negligible (Kasworm, 1980). Instead of being proactive in meeting and anticipating the needs of non-traditional age students, the tendency for many colleges and universities is to attempt to fit non-traditional age students into programs created for traditional age students (Kasworm, 1977; Shannon, 1986). Student programs and services are often structured at the convenience of administrators versus that of student convenience (Schlossberg, Lynch, & Chickering, 1989; Coles, 1995). Though the American student population has gotten older, administrators normally take too long to realize the make up of their student population and, instead, tend to focus on what they want their student population to be (Likins, 1986).

Studies Pertaining to Differential Needs of Non-Traditional Age Student Versus Residential, Traditional Age Students

There has been a great amount of research concerning a student's place of residence (on-campus versus commuting) and how it effects a student's persistence in obtaining his or her college degree (Astin, 1973, 1984; Chickering, 1974, Clodfelter, 1984; Pascarella & Terenzini, 1991). Since Chickering's (1974) work, administrators and student affairs professionals have been urged to promote the residential or traditional college experience for students versus commuting to school. The reason for this preference in living arrangement is not based solely on academic achievement but, rather, on the lack of personal adjustment and commitment by college students who do

not reside on-campus (Astin, 1984). A student's living environment has often been cited in research as a factor in the social and emotional development of college students (Pascarella & Terenzini, 1991). Residing in residence halls versus commuting to school has been considered to be an advantage in goal obtainment (Chickering, 1974), increasing the chances of persistence in college and in further studies at the graduate level (Astin, 1977).

In a study by Graff and Cooley (1970), it was found that commuter students were less satisfied in their academic programs, generally felt less self-confident, and had poorer mental health than those students living in residence halls. Additional support for residential living was found by Wilson, Anderson, and Fleming (1987), who noted a significant difference between commuter and residential college students regarding college maladjustment, with commuter students showing a higher degree of maladjustment. Grayson (1994), in a more recent study conducted at a predominantly commuter Canadian university, found that students were more successful and satisfied with their educational experience if the classroom topics were viewed as worthwhile and pertinent to their ultimate goals.

Students living on campus are more involved in the educational and social systems of the university but, most importantly, have greater gains in outcomes such as self-esteem, persistence in degree attainment, independence, and autonomy (Astin, 1973; Chickering, 1974; Wilson et al., 1987; Pascarella & Terenzini, 1991). Further, freshman residential students had larger gains on a measure of critical thinking than similar students who commuted or lived off-campus (Pascarella, Bohr, Nora, Zusman,

Inman, & Desler, 1993). Students at residential institutions experience changes in social, political, and religious tolerance along with increases in cultural awareness (Pascarella & Terenzini, 1991). Chickering (1969) developed seven dimensions of identity and proposed that higher education should be about the on-going development of those aspects of an individual that has the most impact on self and society. The seven vectors, defining magnitude and direction, were conceptualized by studying residential students at small, liberal arts colleges (Reisser, 1995).

The practical nature of commuting to school is an economic reality for some students due to the proximity of their residence and the additional cost of living on campus that would keep them from attending school altogether (Dluhy & Maidique, 1993; Miller, 1986; Sloan & Wilmes, 1989). During the freshman year, when attrition is high, intervention programs designed for academic success and student integration need to be based on theory that has relevance for commuter students and for the commuter campus (Bonifacio, Sinatra, & Welch, 1991; Gerdes & Mallinckrodt, 1994; Wolfe, 1993). Simulating the residential experience for commuter students based on resident-student models is inappropriate (Wolfe, 1993).

A study by Clodfelter (1984) examined the academic performance between residents and commuter students. The Clodfelter study determined that students living off-campus performed better academically than on-campus students. A possible explanation for this difference is that living off-campus is often associated with increased age, more life experience and academic motivation (Clodfelter, 1984).

The perception of educational gain is different between non-traditional age students and traditional age students (Werring, 1987). According to Werring (1987, p. 16):

> Older-aged students perceive the purpose of a college education as a means of acquiring new knowledge, achieving competence in skills, and studying relationships between various fields, while traditional age students view the college experience with interest in attaining career goals, acquiring skills, and receiving external rewards such as parental approval, status and independence from others.

Older students appear to be more eager to learn than younger students (Liu & Jung, 1980).

There is a difference in the usage, perceptions of need, and level of satisfaction with existing student personnel and academic support services between traditional age (18-22) and non-traditional age (26 and older) students (Kasworm, 1980). Findings in the Kasworm (1980) study show that many colleges and universities have not adapted their support services to assist older students. Campus activities such as student orientation, on-campus housing, student union activities, and campus-related religious activities had less usage and were perceived to be of low importance for older students (Kasworm, 1980). Similar results were found by Kuh and Sturgis (1980), showing a difference in environmental perceptions between traditional age and non-traditional age students with adult students needs not being met.

Much of the present research concerning educational outcomes overlooks student satisfaction (Greenland, 1992). According to Kuh and Sturgis (1980), student

satisfaction should be considered due to the amount of time, energy, and financial outlay required to complete an education. Student satisfaction at a commuter campus was examined by Liu and Jung (1980) to ascertain if the variables identified with student satisfaction at a residential institution apply to a commuter institution. Liu and Jung found that the perception of educational benefit by the student was the most influential variable in affecting student satisfaction. Further, it was determined that older students are better suited to a commuter college atmosphere. In a similar study, a student survey showed that students over the age of 25 found recreational programs, intercollegiate sports, social and cultural activities, and opportunities to socialize decidedly less important than achieving educational goals (Shannon, 1986).

Personal problems and their effect on freshman attrition was studied by Bonifacio et al. (1991). The Personal Problem Checklist (Schinka, 1984) was used to predict academic success of freshman at a urban, commuter college (Bonifacio et al., 1991). The authors determined that students who work over 30 hours per week expressed greater financial problems than students who did not work as much. Outside employment, along with financial problems, may limit a student's time to invest in institutional interaction by forcing the student away from campus (Johnson & Pritchard, 1989). Additionally, students that work full-time overestimate the amount of time academic demands can place on them (Flanagan, 1976). This overestimation has been called the "freshman myth" by Stern (as quoted in Baker, McNeil, & Siryk, 1985) which describes the reality of optimistic expectations and subsequent actual college success.

Hybertson, Hulme, Smith, and Holton (1992) studied the impact of older, non-traditional, commuter students on wellness programs. "Program administrators are challenged to provide services and support that are developmentally relevant to their students and consistent with their students' level of integration into the campus community" (Hybertson et al., 1992, p. 50). The authors also stated that commuter students have similar health concerns as residential students, with the additional component of stress. Commuting students have more stress-related problems due to travel concerns and managing multiple life roles (Sloan, 1988).

When assessing commuter students' opinions concerning campus and university environments, it was determined that non-traditional age commuter students can benefit more from the active promotion of a humane campus environment with policies, processes, and personnel accommodating their busy schedules as from the kinds of wellness activities more typically offered residential students (Hybertson et al., 1992). Colleges and universities can do little to change a commuter students off-campus environment (Coles, 1995). However, in order to assist in reducing the stress of attending school as a commuter student, it is suggested that institutions focus on helping students feel a part of the academic environment while on campus (Davies, 1988).

Implication for Specific Student Services and Programs

The changing demographics of the student population in higher education should not be viewed with apprehension by administrators (Shannon, 1986). Non-traditional age students do not effect the quality and integrity of the academic community and their

inclusion into the college community should be considered an opportunity for academic growth and adaptation (Shannon, 1986).

There are many examples of universities that have adapted to meet the needs of their changing student population (Hughes, 1983; Miller, 1986; Wilmes & Quade, 1986). Those successful programs are addressing the issues facing non-traditional age students, who represent the norm versus the exception in today's universities (Likins, 1991). What is needed is a way to accommodate and assist non-traditional age students in getting an education without a financial burden to the institution. ". . . enhancing the commuter student's educational experience need not be costly or complex" (Rue & Ludt, 1983, p. 43). According to Likins (1986), developing the commuter perspective may be the first step for an institution. The commuter perspective is an outlook on educational outcomes and opportunities from the commuter student's viewpoint, and includes the impact of housing, transportation, work, and family on education (Likins, 1986). Additionally, the commuter student's needs concerning mobility issues, multiple life roles, finding and integrating systems of support, and developing a sense of belonging need to be addressed when programming goals are established (Wilmes & Quade, 1986). Examining existing programs that have problems with high attrition and low program attendance may show that the poor turnout is attributable to programming and services being geared toward a residential student perspective when a commuter perspective would more accurately serve the student population (Likins, 1986).

In a study by the National Clearinghouse for Commuter Programs (NCCP), universities were surveyed to see how they accommodated commuter students (Rue &

Ludt, 1983). Of the 20 schools surveyed, the most popular method of raising commuter awareness was to conduct on-going demographic and needs assessment to determine the characteristics and numbers of commuter students (Rue & Ludt, 1983). The study found that ". . . sophisticated commuter student services have developed at many institutions out of necessity—but also because student affairs practitioners feel that all students deserve the richest educational experience" (Rue & Ludt, 1983, p. 48).

The use of technology can assist commuter students with tasks such as business transactions with the university and access to library resources, data bases, and e-mail (Stewart, 1995). An innovative use of technology that can assist traditional and non-traditional students alike is the information kiosk (Granger & Stevenson, 1996). Currently in use at the University of Maryland at College Park, these kiosks are accessible from 7:30 a.m. until 11:00 p.m., and provide registration functions, parking decal purchase, grade inquiry, and bill payment information (Granger & Stevenson, 1996). However, technology should never override personal interactions (Stewart, 1995). One reason that students do not stay at a school or transfer to another school is due to a feeling of alienation with the university community (Tinto, 1975).

Due to some innovative programs created by several colleges and universities, students may not need to commute to school in the future (Gilley & Hawkes, 1989). Alternative college and university programs are now allowing study at home via e-mail, distance learning centers located closer to the students homes, or, in some cases, classes taught in the workplace (Snyder, 1987).

A similar idea was developed at Idaho State University where campus activities occur closer to the residences of non-traditional students (Losinski, 1983). Commuter students pay the same student service fees that traditional, residential students pay but do not have access to most campus programming due to time conflicts and personal commitments off-campus (Educational Facilities Laboratories, 1977). The Idaho State University program used "host schools" such as junior colleges and technical institutes as program locations in trade for free access for the students at the other schools (Losinski, 1983). This program allowed commuter students and their families to participate in campus activities closer to their homes (Losinski, 1983).

Student involvement is important to academic success and personal development. Astin (1984, p. 298) developed the involvement theory which contains five postulates;

1. Involvement refers to the investment of physical and psychological energy in various objects;

2. Regardless of its object, involvement occurs along a continuum;

3. Involvement has both quantitative and qualitative features;

4. The amount of student learning and personal development associated with any educational program is directly proportional to the quality and quantity of student involvement in that program; and,

5. The effectiveness of any educational policy or practice is directly related to the capacity of that policy or practice to increase student involvement.

One of the best ways to increase the university involvement of non-traditional age students is to give them a location from which they can operate (Knefelkamp &

Stewart, 1983). Historically, the student union has been the location where residential students can meet, study, relax, and keep abreast of campus activities (Banning & Hughes, 1986). The commuter student feels alienated in this environment due to limited access to the student union because of hours of operation (Gilley & Hawkes, 1989). Many student unions and centers close in the early evening, leaving commuters students with no location other than their cars or classroom corridors in which to relax or study (Andreas, 1983). The commuter student has a sense of disenfranchisement because, at the most fundamental level, they lack even a small space to call their own (Sloan & Wilmes, 1986). Facilities accessible to commuter students need to be created (Schneider, 1993). Commuter students need a facility where they can study in between classes, eat from a variety of locations, obtain information concerning upcoming campus events, have childcare, carry on bank transactions, have lockers and changing facilities, have access to copying and fax machines, and be reached in the event of an emergency (Andreas, 1983; Educational Facilities Laboratories, 1977).

To reduce commuter student alienation, the use of the ecosystem design would consider the entire campus and those who use it in the design and construction of any new facilities (Banning & Hughes, 1986). The seven step design approach considers the community, values, environments, student perceptions, student behaviors, and feedback on the original process in an on-going approach to increase student satisfaction and retention (Banning & Hughes, 1986). The campus ecology model would be a practical application of Lewin's (1936) work where a student's behavior is a function of the relationship between the student and the campus environment. To increase retention and

student satisfaction, a better fit between the commuter student and campus environment needs to be made (Bean & Metzner, 1985).

Student service administrators need to reassess their departments to improve services for non-traditional students (Andreas, 1983; Coles, 1995). The existing compartmentalized approach where each department has a distinct function does not serve commuting students well (Coles, 1995). Coles states that for a student to utilize all of the facets of a student personnel division, it would require a visit to each of the areas. A better approach would be a non compartmentalized service office that could handle any student-related need (Coles, 1995). Accessibility of information, university programs, and personnel is essential to commuter students (Andreas,1983). Many non-traditional age students are unaware of the services available to them (Stolar, 1991), and as previously stated, programs and services go under-utilized (Coles, 1985; Hughes, 1983)

Administrators and student service professionals should become commuter student advocates in order to overcome the historical neglect of non-traditional age students related to residential students (Likins, 1986). "If administrators and faculty members do hold prejudicial attitudes toward commuters, an awareness of this is critical since it may be possible that differential treatment and expectations do exist" (Foster, Sedlacek, Hardwick, & Silver, 1977, p. 291). Likins (1986) suggests the process to assist non-traditional and/commuter students is best accomplished by developing the following skills:

1. information gathering and dissemination—about commuters in general, about commuters at one's college or university, and about one's institution;

2. analysis and communication—to analyze commuter issues and institutional concerns and traditions and to communicate with others about these;

3. creativity—to develop strategies to accomplish goals and to find new ways to help others develop the commuter perspective; and,

4. persistence—to not easily discourage and to enunciate clearly and repetitively the commuter perspective (Likins,1986, p. 13).

Accomplishment of an institution's mission can be best achieved by studying the existing academic programs, academic support services, physical plant and facilities, student-development opportunities, and student-service support to ascertain how these areas effect the overall educational experience of commuter students (Andreas, 1983). It is also suggested that the student service fee structure be examined in relation to the number of commuter students to insure that revenues generated by this population are used to support commuter student programming (Jacoby, 1996).

The literature also suggests another way for student service administrators to become advocates for non-traditional age students is to adopt the Standards and Guidelines for Commuter Students Programs and Services (Rue & Ludt, 1983). The standards were established by the Council for the Advancement of Standards for Student Services/ Development Programs (CAS) to assist individual institutions in development of a plan of action regarding commuter students services and programming (Council for the Advancement of Standards, 1988). Additional suggestions for student development

professionals include using the SPAR model developed by Jacoby and Girrell (1991). The SPAR model uses a four-pronged approach of services, programs, advocacy, and research to help build a full range of administrative initiatives in assisting commuter students (Jacoby & Girrell, 1991).

Student support services need to provide separate and different programs for their non-traditional age students. These programs cannot be older versions of existing programs created for traditional (18-22 year old) students (Matthews, 1985). Since many non-traditional students may have been away from the educational environment for many years, transitional courses may be of the most benefit (Matthews, 1985). Transitional courses in the areas of math, science, study, communication skills, and time management may assist non-traditional age students more than the typical orientation programs used for traditional students (Gerdes & Mallinckrodt, 1994; Matthews, 1985; Staats & Partio, 1990).

Olson (1995) examined the perceived importance of student services, comparing traditional age and non-traditional age students on 11 aspects of the university environment. The results showed that, generally, older students desire the same student services as traditional age student. However, the study suggests that services and programs need to be altered to meet non-traditional age students' unique needs (Olson, 1995).

Communication with commuter students at many universities is inadequate and, therefore, many services are underutilized (Coles, 1995). Traditionally there are four methods of communication used on campuses: printed materials, new student orientations, faculty and staff interaction, and outreach programs (Coles, 1995). However,

prior to coming to college, students used television and radio as their main means of gathering information (Coles, 1995). Communicating with commuter students usually involves a combination of existing on-campus and off-campus media to insure information is disseminated (Rue & Ludt, 1983).

A simple but innovative approach is to produce a "commuter paper" that is mailed to the student's residence in order to provide necessary information applicable to commuter students (Henckler, 1982). The commuter paper would also be useful in disseminating information concerning institutional policy (Hunnicutt, Davis, Perry-Hunnicutt, & Newman, 1992). For example, an institution's policy concerning alcohol use and programs available to commuter students with alcohol abuse problems could be addressed (Hunnicutt et al., 1992).

In sum, non-traditional age commuter students are entitled to the same education, facilities, programs, and services as residential students (Sloan, 1988). Programs need to be created that will promote a sense of tradition involving non-traditional age students (Schneider, 1993). "Tradition will increase off-campus student's sense of belonging if the traditions are aimed at their needs" (Schneider, 1993, p. 26).

Studies Pertaining to College Selection and Persistence

Several studies have looked at the economic implications of college choice by creation of probability models for admission and enrollment (Bruggink & Gambhir, 1996; Ordovensky, 1995; Weiler, 1995). Ordovensky (1995) developed a multinominal logit model of enrollment probability which examined institutional characteristics that were expected to have the greatest impact on a student's choice of postsecondary edu-

cation. The two non-academic variables were the direct cost of enrollment related to the student's family income and proximity of the school to the student's home (Ordovensky, 1995). In another theoretical model study, Weiler (1995) considered non-financial quality measures in comparison to the costs of attendance. It was determined that ". . . non-monetary institutional characteristics are highly significant determinants of institutional choice" (Weiler, 1995, p. 34). Regarding college selection, non-academic variables such as housing and recreational offerings were shown to have as much impact as academic concerns (Weiler, 1995).

A similar study was conducted by Coccari and Javalgi (1995), and stressed the need for universities to examine and have a thorough understanding of their students' needs. Coccari and Javalgi used a 20-choice criteria to assess the needs and wants of students with different races and backgrounds concerning college selection. All students in the study considered the quality of staff/faculty, types of degree programs, schedule of classes, classroom instruction, location, student/teacher ratio, faculty/student interaction, and financial assistance important (Coccari & Javalgi, 1995). Further, the quality of faculty was more important to white, Hispanic, and Asian/Pacific students while African American students considered degree programs and the scheduling of classes most important (Coccari & Javalgi, 1995).

The cost of attending and its effect on college selection was a significant outcome of the 1994 SUNY Student Opinion Survey (Lee, 1995). An additional reason cited by SUNY students for selecting a particular college was the availability of courses and programs that students wanted (Lee, 1995). An important outcome from this study is the

information obtained on campus climate that gathered information on a student's sense of belonging to a campus, which is pertinent to whether a student stays and completes their degree, transfers to another school, or drops out (Lee, 1995). The students' responses to the question "Your Sense of Belonging on This Campus" found black students were the least satisfied group while white and Hispanic students also expressed some degree of dissatisfaction with the school (Lee, 1995). Asian/Pacific students, however, expressed that they were "satisfied" or "very satisfied" with the campus climate (Lee, 1995). Further, students ranked the "Attitude of College Staff Towards Students" high, which would help determine a student's "fit" into the social and academic framework of a institution (Lee, 1995; Tinto, 1975).

> College students have the freedom to choose the college they attend. Unlike elementary and secondary education, students in higher education have the choice whether to go to college, which college to enroll in, what to major in, whom to interact with in college, which courses (and even what professors to take), whether to change majors, whether to drop out of a course, whether to stop out of college, whether to change colleges, and whether to drop out of college (St. John, Paulsen, & Starkey, 1996, p. 177).

The nexus between which college to choose to attend and whether to remain at that college was examined by St. John et al. (1996). College choice and persistence had previously been examined as mutually exclusive of each other. College choice has been theorized to be a three-step process for prospective students (St. John et al., 1996). Step one is the student's initial intent to pursue a college degree. The second step is the

search for and application to colleges of interest. The final step is the selection of and actual attendance of a university (Bruggink & Gambhir, 1996), which is similar to the Manski and Wise (1983) preference utility model.

St. John et al. (1996) found persistence decisions were derived from student background variables, finances, college experiences, and postsecondary aspirations. It was determined that finance-related factors had the most bearing on initial college choice and persistence and that the variables of social and academic reasons had an effect on how a student integrated socially or academically (St. John et al., 1996). The study found ". . . the information and image communicated to students in the marketing and recruitment processes may have influenced students to choose a college for academic and social reasons. If the images students held about the quality of experience went unfulfilled, then they may have been more likely to drop out" (St. John et al., 1996, p. 211). Additionally, it has been shown that a congruence between a student's perceptions and institutional expectations relates to student satisfaction and persistence (Kuh & Sturgis, 1980).

Klainberg (1994) studied the goals of non-traditional students and the institution to determine if they were congruent and if this congruence impacted a student's sense of mattering. There was a significant correlation between the Mattering Scales Faculty subscale and the Institutional Goals Inventory, measuring congruence between goals of the institution and the student. Similar to Fauber's (1996) results, this study's outcome indicates that persistence of adult students is unaffected by their perceptions of the educational environment or mattering. Establishing a university community for non-

traditional age adult students may not have the impact on persistence first considered when the concept of mattering was conceptualized.

One aspect of the college selection and persistence research relates to a student's perceptions of the university he/she attending and the student's overall satisfaction with the university. Powers and Redding (1995) examined academic resources, academic expectations, and the overall university experience of traditional and non-traditional age graduating seniors. It was determined in the study that non-traditional age and traditional age students had the same overall perceptions of their college experience (Powers & Redding, 1995). The study found that non-traditional age students were well aware of the expectations and demands of college and did not require differential treatment (Fauber, 1996; Powers & Redding, 1995). The authors felt this was particularly significant since most institutions lack the finances required to provide additional facilities for non-traditional students.

Many studies conducted on persistence are based on Tinto's (1975, 1987) research which found that students are successful in college if they are integrated or "fit" into the college environment.

> The term integration can be understood to refer to the extent to which the individual shares the normative attitudes and values of peers and faculty in the institution and abides by the formal and informal structural requirements for membership in that community or in the subgroups of which the individual is a part. (Pascarella & Terenzini, 1991, p. 51)

Bean's (1980) model of attrition added to Tinto's (1975) theory by incorporating dimensions outside of the academic community such as relationships with significant others and the added responsibilities that come with families and work. The model shows that, due to these outside dimensions, persistence is impeded and/or the period of time to complete a degree is extended (Bean, 1980). Bean's model has been found to be especially appropriate for non-traditional age students (Hull-Toye, 1995).

To determine factors related to persistence, a longitudinal study was conducted by Kraemer (1996) on students entering college during the 1994-1995 school year. Based on models of persistence by Tinto (1975, 1987); Nora (1987); Cabrera, Castenada, Nora, and Hengstler (1992); Cabrera, Nora, and Castenada (1993), the additional "pull factors" of family responsibility and financial problems were added. The four factors surveyed were: math ability, family problems, financial problems, and encouragement (Kraemer, 1996). The preliminary results showed that students with good math ability upon entering college were more likely to have a good grade point average, have the intent to persist, and were more likely to persist. It was also determined in the Kraemer (1996) study that encouragement by instructors had a positive effect on student persistence.

In a study by Pascarella, Edison, Hagedorn, Nora, and Terenzini (1995), a student's internal locus of attribution for success in their first year of school was examined. Twenty-three schools throughout the country were surveyed to determine if a student's success was influenced by institutional characteristics, student academic experience, and social/non-academic experiences (Pascarella et al., 1995). Positive effects on

a student's locus of attribution for academic success were found to be associated with attending a two-year college, the amount of hours (exposure) to the institution, work responsibilities, the extent of course organization, instructional clarity, instructor support, and participation in intercollegiate athletics (Pascarella et al., 1995). The impact of college on students was found to be "cumulative" rather than a single experience (Pascarella et al., 1995; Pascarella & Terenzini, 1991).

Student satisfaction and its relationship to persistence and academic performance was studied by Wince and Borden (1995). The concept of considering students' satisfaction with their college experience is a fairly new topic and was not included in previous persistence research conducted by Tinto (1975) on integration into the university setting nor by Astin's (1985) study of student involvement and its effect on persistence. It was determined that a small but significant association between satisfaction and performance exists in this study (Wince & Borden, 1995). Further, a larger association was found to exist between satisfaction and persistence (Wince & Borden, 1995).

Studies Conducted at UT-Arlington

UT-Arlington conducts a student survey every five years. The most recent student survey was conducted in 1994, with 32.4% of the student body responding to the survey. Of the latest respondents, only 10% live on campus and 36% were 26 and older (UT-Arlington, 1994). Students were asked why they decided to attend UT-Arlington? The top responses were convenient location, low tuition, and academic reputation (UT-Arlington, 1994).

The UT-Arlington survey also gives a glimpse of how UT-Arlington may be viewed as a "non-traditional" school. Most students do not consider involvement in campus organizations or participate in university-sponsored activities; they consider preparation for a job or career the most important aspect of university life (UT-Arlington, 1994).

Student satisfaction with several areas of university services were also surveyed. UT-Arlington has seen turmoil in the last couple of years in a troubled administration, three presidents within five years, and declining enrollment. This uncertain atmosphere is reflected in the "UTA Student Survey," with the 1994 results having the lowest satisfaction rating for the "school in general" in 15 years (UT-Arlington, 1994). Students in the recent study also showed decreased satisfaction with "university facilities," "library services," "recreational facilities," the "overall image UTA has in the local area," and "rules and regulations at UTA" (UT-Arlington, 1994). Only the "registration process," the student publication, "food service," and concern administration and faculty show toward students increased in satisfaction rating in the 1994 survey over previous years (UT-Arlington, 1994).

CHAPTER 3

RESEARCH DESIGN & METHODOLOGY

Procedures for Collection of Data

Approval to conduct survey research was obtained March 24, 1997 from The University of Texas at Arlington Human Subjects Committee (Appendix A) and from The University of North Texas Institutional Review Board for the Protection of Human Subjects in Research (IRB) on July 2, 1997 (Appendix B). A cover letter was mailed to each subject along with a survey and a return stamped envelope (Appendix C). A follow-up phone call was made one week and two weeks after the initial survey mailing to remind those subjects to return the survey. A second mailing of the survey instrument was made for those subjects who stated they misplaced or did not receive the initial survey mailing.

Instrument

The instrument chosen to assess the perceptions of adult undergraduate students at UT-Arlington is "The Mattering Scales For Adult in Higher Education" (MHE) (Schlossberg, Lassalle, & Golec, 1989). Permission to use the MHE was given by the American Council on Education upon purchase of the survey instrument (Appendix D).

The MHE was initially developed in 1989 by the American Council on Education (ACE) in order to study 23 institutions of higher education. The normative sample of

institutions included 16 four-year colleges and universities and 7 two-year schools. Three of the 16 institutions of higher education were private. UT-Arlington was not included in the normative sample. Additionally, until this study, the MHE had not previously been administered at UT-Arlington.

The MHE contains 45 statements related to how adult students (non-traditional age) feel they matter to the institution they are attending. In addition to the MHE questions contained on the ACE instrument, one additional question was placed on the survey form by the researcher to ascertain whether the non-traditional age students who responded to this instrument plan to complete their degree at UT-Arlington.

The instrument utilizes five scales to assess adult students' perceptions in five dimensions of postsecondary education (administration, advising, peers, multiple roles, and faculty). The dimensions are scored on a five-point scale: 1) SD= strongly disagree, 2) D= disagree, 3) N=neither agree or disagree, 4) A= agree, and 5) SA= strongly agree. Of the 45 items, 11 concerned attitudes toward the administration, 8 concerned the advising process, 11 concerned their interaction with peers, 7 concerned their perception of the university community's recognition of their multiple life roles, and 8 concerned their interaction with faculty. Description of the five dimensions and possible characteristics of high scorers are as follows:

"Administration Subscale"—measures adult students' perceptions of the extent to which campus policies and procedures are sensitive to adult student concerns. High scorers may feel that university policies such as payment arrangements, registration

methods, and the scheduling of classes are accommodating to non-traditional age students. Adult students may also perceive campus activities and the school newspaper reflect adult student concerns.

"Advising Subscale"—measures adult students' perceptions of the extent to which advisors and other information providers attend to their questions and concerns. High scorers in this subscale may have had positive experiences with advisors who have made themselves available to the adult students and who appear interested in the adult student's needs. High scorers may also have a good understanding of administrative rules and regulations and have found administrative staff accessible to them.

"Peers Subscale"—measures the extent to which adult students feel they belong on the campus and how they are accepted by class peers. High scorers may feel comfortable in the classroom and have a sense of camaraderie with other students.

"Multiple Roles Subscales"—measures adult students' perceptions of the extent to which the campus acknowledges competing demands on their time. High scorers may feel the university has flexible rules and policies and allows them enough latitude to meet other responsibilities. Adult students who score high in this subscale may report that their university has late hours for administrative offices, part-time student options, and an understanding of adult students' other responsibilities.

"Faculty Subscales"—measures adult students' perceptions of the extent to which faculty members accept them in the classroom. Students who score high may describe a comfortable feeling in the classroom and feel that they are treated the same as

traditional age students. High scorers may also describe faculty members as accepting their life experiences and are open to classroom diversity.

Internal consistency for the MHE was determined using Cronbach's Coefficient Alpha. The Cronbach's alpha, Standard Deviation, and Mean for each dimension is reported in Table 1.

Table 1

Internal Consistency Coefficient (Cronbach Alpha) for the Mattering Sales for Adults in Higher Education (n=511)

Subscale Alpha	Number of Items	Mean	S.D.	Cronbach
Administration	11	32.42	7.12	.85
Advising	8	28.40	5.46	.82
Peers	11	39.66	6.41	.86
Roles	7	22.14	4.80	.77
Faculty	8	28.73	5.02	.82

Note: From *Initial Analysis for the Mattering Scales for Adult Students in Post-secondary Education Manual for the MHE*, 1989. Reprinted with permission.

Population

The population in this study is a representative sample of non-traditional age (26 years old and above) students enrolled in an undergraduate degree program during the 1977 Fall semester at UT-Arlington (N= 1,895). Only those students who have at least 30 hours completed and have a grade point average (GPA) of 2.0 or higher (in good

academic standing) at UT-Arlington were considered for the sample. Degreed undergraduate students were exempt from the population since their undergraduate experience may have been at another school and this could cause confusion as to which undergraduate experience they are drawing upon when answering the survey questions. Students with at least 30 hours completed were used for this study because they would have had more experiences with different campus policies, services and facilities, than individuals just starting at UT-Arlington.

UT-Arlington is located in the Dallas/ Fort Worth metropolitan area in the southwestern part of the United States. UT-Arlington is a large, state-supported university offering a full range of undergraduate, master's, and doctoral degree programs (Carnegie classification: Doctoral I).

Sample

For this study, students enrolled during the Fall 1997 semester were selected based on a computer program provided by the Office of Administrative Information Systems at UT-Arlington. The program extracted undergraduate students from the general student population, 26 years of age and older, in good academic standing (GPA 2.0 or higher out of 4.0), who have passed at least 30 hours at UT-Arlington. The population number (N= 1,895) was determined from the computer program. A total of 900 surveys were mailed to insure a 95% confidence level at a $\pm$.05 alpha level (American College Testing Program, 1996). Three hundred and eight surveys were returned, which provided a 32.4% return rate.

Research Design

This study was designed to describe the perception of undergraduate adult students on how much they "matter" to UT-Arlington by using survey research methodology.

Procedure For Data Analysis

After all the survey instruments were collected, the data were analyzed using the BMDP Statistical Software program (BMDP, 1993). The first phase of the data analysis consisted of descriptive statistics providing a complete description of the demographics of the sample and responses to each of the subscales on the instrument. This information was used to answer research question one. Correlations between mattering scores and students' expressed intent to persist at UT-Arlington were calculated to answer research question two. The third phase of the data analysis consists of analyzing the five subscales on the basis of gender and ethnicity using two-way analysis of variance (ANOVA) to answer research question three.

CHAPTER 4

PRESENTATION OF DATA FINDINGS

The results of the study on the perception of non-traditional adult students regarding how much they matter to their institution are reported in this chapter. The first section of the chapter presents the demographics of the sample and quantitative analysis of the survey instrument to answer research question one. Section two of the chapter, answering research question two, presents the correlations between scores on the five mattering score subscales and the student's intent to persist. The third section, answering research question three, will present analysis of the five subscales on the basis of gender and ethnicity.

Findings for Research Question One

The population for this study consisted of 1,895 non-traditional age undergraduate students at UT-Arlington. Nine hundred surveys were mailed out and 308 usable surveys were returned, providing a 32.4% response rate. Of the population sampled (N= 1,895), 1,391 were considered non-minority by university-supplied records of student self-disclosure of minority status. Of the non-minority students, 600 surveys were mailed out and 143 were returned. The 504 minority students in the sample population received 300 surveys and returned 165. Table 2 provides demographic information on the survey respondents.

Table 2

Demographics of Student Respondents

Gender 165 Males (53.6%) 143 Females (46.4%)
Classification 7 Sophomores (2.2%) 26 Juniors (8.4%) 275 Seniors (89.4%)
Respondent Minority Status 143 Non-minority (46.4%) 59 Female non-minority (19.1%) 84 Male non-minority (27.3%)
165 Minority (53.6%) 83 Female minority (27.0%) 82 Male minority (26.6%)

Means and standard deviations were obtained for each of the five subscales of the MHE upon scoring the 45-question instrument. Of the five subscales, the Interaction With Peers subscale, which measures adult students' perceptions of how much they feel they belong on campus and are accepted by peers, rated highest amongst the UT-Arlington survey respondents. The next highest score was the Administration subscale that measures adult students' perceptions of the extent to which they perceive UT-Arlington's policies and procedures are sensitive to their needs. The Faculty subscale, which measures adult students' perceptions of the extent faculty members accept them in a classroom, was the third highest score, followed by Advising; the lowest scored subscale was that of Multiple Roles. The Advising subscale measures the extent to

which advisors attend to adult students' questions and concerns. The Multiple Roles Subscale is designed to measure adult students' perceptions of how well the university acknowledges other facets in their lives which place time demands. The five subscale scores from the sample are compared to the MHE normative data in Table 3. Compared to the institutions used in the normative sample, UT-Arlington respondents have similar results on the Interaction With Peers and Faculty subscales. The standard deviation for the UT-Arlington student sample was greater than the normative sample, indicating a broader range of responses.

Table 3

Descriptive Statistics for Subscales: UT-Arlington Versus 4-year Normative Data

Subscale	Mean	SD
Administration		
4-year	33.04	4.13
UT-Arlington	32.52	5.67
Advising		
4-year	27.97	2.58
UT-Arlington	25.83	5.47
Peers		
4-year	37.84	3.30
UT-Arlington	37.98	6.68
Roles		
4-year	21.90	2.08
UT-Arlington	22.20	4.36
Faculty		
4-year	27.84	2.12
UT-Arlington	27.81	5.14

Note: From *Mattering Scales for Adult Students in Postsecondary Education* by N. K. Schlossberg, A. D. Lassalle, & R. R. Golec, 1989. American Council on Education. Reprinted with permission of the author.

Tables 4, 5, 6, 7, and 8 present the distribution of responses for each of the five subscales and the questions on the survey related to the subscale. Appendix E contains comments written by students on the survey.

Table 4

Distribution of Responses—Administration Subscale

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Disagree
1. The university's policy of transfer credit penalizes non-traditional students.	20	36	23	7	14
4. The administration seems to consider adult student priorities as important as traditional student priorities.	6	30	31	25	8
7. The faculty and administration are sensitive to my other responsibilities	6	29	31	26	8
11. The administration sets things up to be easy for them, not the students.	16	30	29	20	5
21. The administration makes efforts to accommodate adult students.	5	36	32	20	7
24. The university does not commit enough resources to off-campus courses.	13	26	48	11	2
28. It takes too long to register or correct registration problems.	10	12	24	43	11
32. The university offers alternatives to the traditional semester-length course.	2	12	29	28	29
34. Campus rules and regulations seem to have been made for traditional-age students.	7	35	31	24	3
40. I feel my activities fees are spent in a way that is meaningful to me.	1	16	21	31	31
43. The school newspaper doesn't discuss adult student issues.	9	26	39	24	2

Table 5

Distribution of Responses—Advising Subscale

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Disagree
2. My advisor doesn't seem to remember things we have discussed before.	18	19	35	17	11
9. The administrative rules and regulations are clear to me.	11	43	24	16	6
13. If my advisor didn't know the answer to my questions, I'm sure he or she would seek out the answers.	14	41	26	13	6
18. There has always been someone on campus who could help me when I had a question or problem.	11	47	17	20	5
25. There has always been an advisor available to talk with me if I need to ask a question.	10	38	17	26	9
29. Administrative staff are helpful in answering my questions.	8	47	22	16	7
37. Classes are offered at times that are good for me.	6	35	11	32	16
41. My advisor has office hours at times that I am on campus.	5	48	14	23	10

Table 6

Distribution of Responses—Multiple Roles Subscale

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Disagree
3. I will have a hard time finishing my degree because of time limits on completing degree requirements..	13	38	26	18	5
12. It's hard for me to go back to the school environment.	6	21	20	41	12
17. I don't have time to complete the administrative tasks this institution requires.	4	19	26	43	8
20. The administration officers are not open at times when I need them.	12	30	22	32	4
31. Unless I have another student my age in class, no one really understands how hard it is to be there.	12	38	25	19	6
39. Classes are offered at times that are good for me.	18	20	25	27	10
42. Departmental rules sometimes make my goals difficult or impossible.	8	25	35	26	6

Table 7

Distribution of Responses—Peers Subscale

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Disagree
5. I get support from my classmates when I need it.	16	47	22	8	7
14. The classroom atmosphere encourages me to speak out in class.	12	52	19	14	3
15. I feel my classmates react positively to my experiences and knowledge.	8	49	30	11	2
19. I feel like I fit in my classes.	14	53	19	13	1
22. I have a good relationship with my younger classmates.	10	54	21	11	4
26. My classmates would help me catch up to the new technologies if I needed it.	7	44	31	12	6
30. Fellow students don't seem to listen to me when I share my life experiences.	4	9	35	44	8
33. I have had adequate opportunities to get to know fellow students.	11	42	21	1	8
35. My age sometimes gets in the way of my interactions with fellow students.	5	26	21	36	12
38. As an adult student, I feel welcome on campus.	8	53	27	9	3

Table 8

Distribution of Responses—Faculty Subscale

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Disagree
6. My questions seem to put faculty on the defensive.	12	35	34	16	3
10. My professors interpret assertiveness as a challenge to their authority.	7	37	24	25	7
16. My professors seem to recognize the younger students but not me.	1	5	24	49	21
23. Sometimes I feel out of date in the classroom.	21	17	21	30	11
27. My experience-based comments are accepted by my professors.	8	42	36	11	3
36. Some of the jokes my professors tell make me feel uncomfortable.	4	9	23	44	20
44. My professors sometimes ignore my comments or questions.	5	11	21	48	15
45. I sometimes feel my professors want me to hurry up and finish speaking.	4	11	21	51	13

Findings for Research Question Two

The MHE subscale scores recorded by UT-Arlington undergraduate students reflect that there is no relationship between "mattering" and this population's perception of their intent to persist to graduation. Three hundred and six students out of the 308 total respondents indicated they intend to persist to graduation at UT-Arlington. Only two students' survey responses indicted that they were undecided as to their perception of persistence to an undergraduate degree at UT-Arlington. Table 9 contains the information on a Kendall correlation.

Table 9

Kendall Correlation Matrix

	Persist	Admin	Advise	Peers	Roles	Faculty
Persistence	1.000	-0.000	-0.101	-0.060	-0.060	-0.058
Administration	-0.000	1.000	0.597	0.558	0.677	0.520
Advising	-0.101	0.597	1.000	0.500	0.597	0.430
Peers	-0.060	0.558	0.500	1.000	0.580	0.659
Roles	-0.060	0.677	0.597	0.580	1.000	0.587
Faculty	-0.068	0.520	0.430	0.659	0.587	1.000

Findings for Research Question Three

Five two-way analysis of variance (ANOVA) were used to determine interactions among the MHE subscales based on gender and minority status. The Bonferroni technique was used to adjust the alpha level for the five different Anovas (Thomas & Nelson, 1985). Table 10 presents the analysis of variance for the administration subscale. Statistically significant differences ($p.\leq.01$) exist for the interaction between gender and minority status on this subscale. Table 11 presents a plot of the means representing the interaction between gender and minority status. Non-minority males and minority females had means that were similar (31.73 and 31.77, respectively).

Table 10

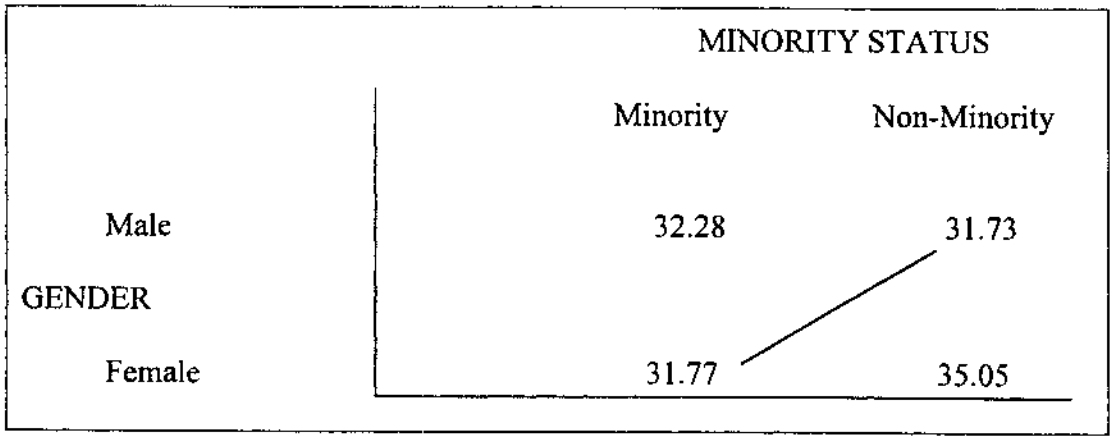
Analysis of Variance for the Administration Subscale

Source	SS	Df	Mean Square	F Value	Tail Probability
Gender	148.4788	1	148.4788	4.80	0.0293
Minority	139.1476	1	139.1476	4.50	0.0348
Interaction	276.5671	1	276.5671	8.94	0.0030*
Error	9378.6696	303	30.9527		
Analysis of Variance; Variances are not assumed to be equal					
Welch	3,163			5.54	0.0012
Brown-Forsythe					
Gender	1,281			4.85	0.0285
Minority	1,281			4.54	0.0339
Interaction	1,281			9.05	0.0029
Levene's Test for Equality of Variances					
Gender	1,303			0.04	0.8331
Minority	1,303			0.98	0.3222
Interaction	1,303			0.51	0.4766

* $p < .01$

Table 11

Plot of Interaction of Gender and Minority Status—Administration Subscale



A statistically significant difference in gender is presented in Table 12 for the Advising subscale. Table 13 presents the plot of the means for this subscale.

Table 12

Analysis of Variance for the Advising Subscale

Source	SS	Df	Mean Square	F Value	Tail Probability
Gender	324.3389	1	324.3389	11.22	0.0009*
Minority	31.5032	1	31.5032	1.09	0.2974
Interaction	91.9134	1	91.9134	3.18	0.0756
Error	8762.3780	303	28.9187		
Analysis of Variance; Variances are not assumed to be equal					
Welch	3,162			4.87	0.0029
Brown-Forsythe					
Gender	1,280			11.31	0.0009
Minority	1,280			1.09	0.2981
Interaction	1,2801			3.19	0.0751
Levene's Test for Equality of Variances					
Gender	1,303			0.71	0.4012
Minority	1,303			1.98	0.1609
Interaction	1,303			0.27	0.6039

Table 13

Plot of the Means for the Advising Subscale

	MINORITY STATUS	
	Minority	Non-Minority
Male	25.17	24.71
GENDER		
Female	26.14	27.89

Table 14 presents the information on a statistically significant difference on a interaction between gender and minority. Table 15 is the plot of the means of the interaction between gender and minority status.

Table 14

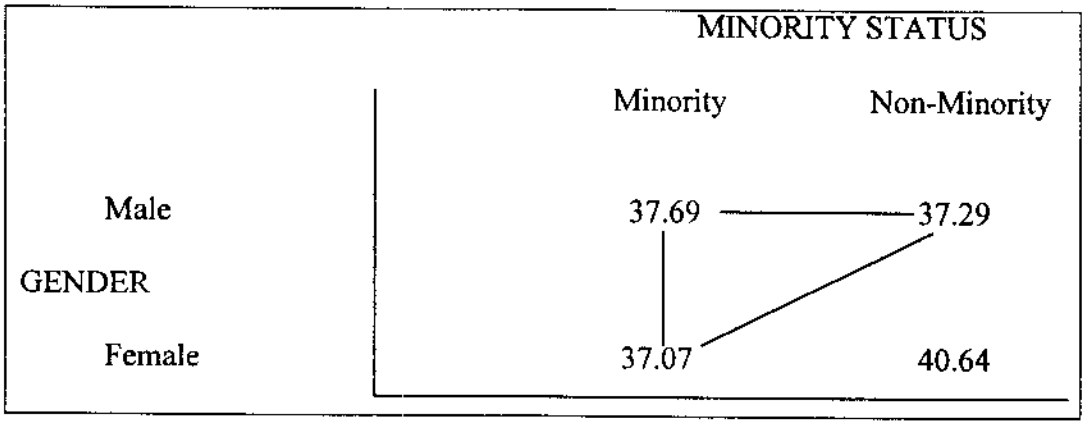
Analysis of Variance for the Interaction With Peers Subscale

Source	SS	Df	Mean Square	F Value	Tail Probability
Gender	139.6978	1	139.6978	3.22	0.0737
Minority	189.6780	1	189.6780	4.37	0.0374
Interaction	295.3236	1	295.3236	6.81	0.0095*
Error	13145.9352	303	43.3859		
Analysis of Variance; Variances are not assumed to be equal					
Welch	3,163			4.46	0.0049
Brown-Forsythe					
Gender	1,287			3.27	0.0715
Minority	1,287			4.45	0.0358
Interaction	1,287			6.94	0.0089
Levene's Test for Equality of Variances					
Gender	1,303			0.01	0.9191
Minority	1,303			0.19	0.6651
Interaction	1,303			0.23	0.6297

* $p < .01$

Table 15

Plot of the Interaction Between Gender and Minority Status Interaction With Peers Subscale



A statistically significant difference for the Multiple Roles subscale is presented in Table 16. The interaction between gender and minority is shown in the plot in Table 17.

Table 16

Analysis of Variance for the Roles Subscale

Source	SS	Df	Mean Square	F Value	Tail Probability
Gender	134.4087	1	134.4087	7.46	0.0067
Minority	80.0233	1	80.0233	4.44	0.0359
Interaction	220.1769	1	220.1769	12.22	0.0005*
Error	5458.9661	303	18.0164		
Analysis of Variance; Variances are not assumed to be equal					
Welch	3,159			6.09	0.0006
Brown-Forsythe					
Gender	1,284			7.18	0.0079
Minority	1,284			4.27	0.0399
Interaction	1,284			11.78	0.0007
Levene's Test for Equality of Variances					
Gender	1,303			4.46	0.0355
Minority	1,303			0.01	0.9044
Interaction	1,303			1.75	0.1870

* $p < .01$

Table 17

Plot of the Interaction Between Gender and Minority Status Multiple Roles Subscale

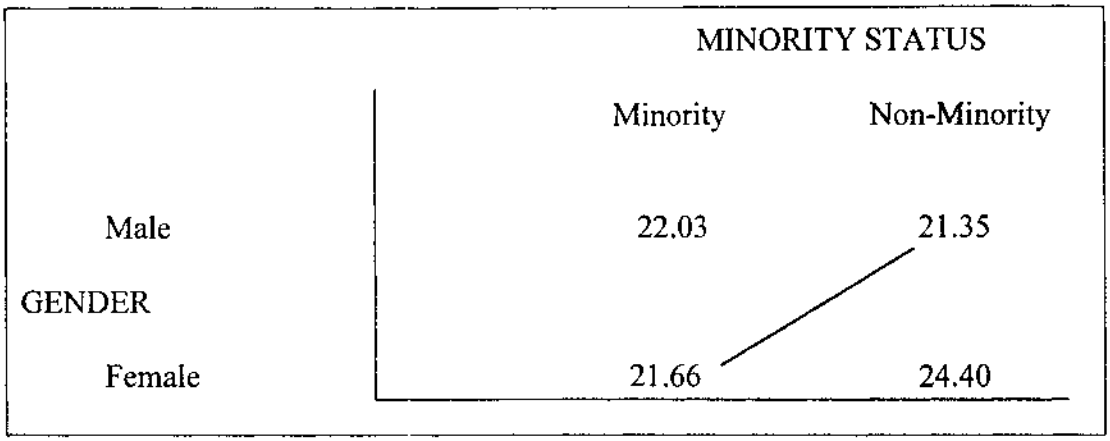


Table 18 presents the information on statistically significant differences for minority and interaction means of the Faculty subscale. Table 19 plots the means of the interaction. The means for male minority (27.30) and non-minority males (27.61) were similar.

Table 18

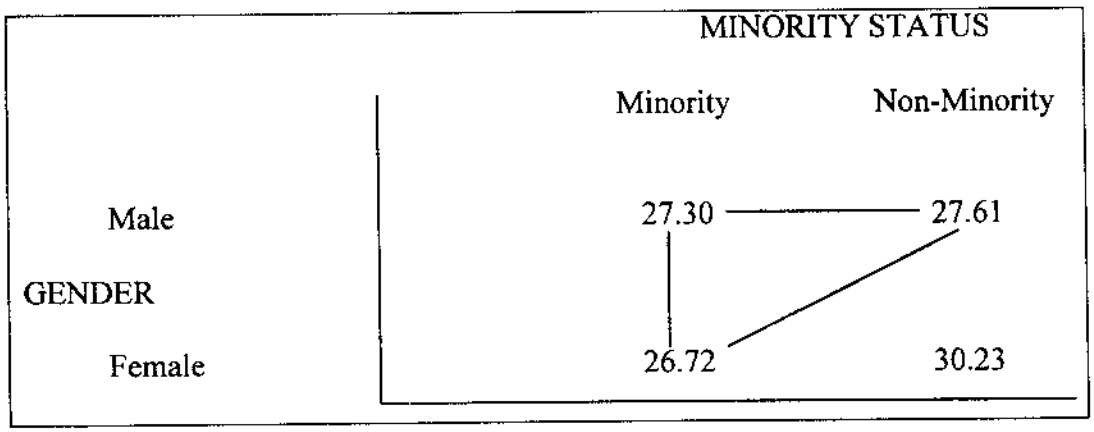
Analysis of Variance for the Faculty Subscale

Source	SS	Df	Mean Square	F Value	Tail Probability
Gender	77.5810	1	77.5810	3.08	0.0804
Minority	274.7365	1	274.7365	10.90	0.0011*
Interaction	192.7884	1	192.7884	7.65	0.0060*
Error	7638.3979	303	25.2092		
Analysis of Variance; Variances are not assumed to be equal					
Welch	3,165			7.59	0.0001
Brown-Forsythe					0.0752
Gender	1,296			3.19	0.0009
Minority	1,296			11.35	0.0051
Interaction	1,296			7.96	
Levene's Test for Equality of Variances					
Gender	1,303			4.46	0.0355
Minority	1,303			0.01	0.9044
Interaction	1,303			1.75	0.1870

* $p < .01$

Table 19

Plot of the Means for the Faculty Subscale



CHAPTER 5

SUMMARY, DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The purpose of the study was to examine non-academic variables that effect non-traditional age college students at The University of Texas at Arlington, as measured by the "Mattering Scales for Adult Students in Higher Education"(Schlossberg, Lassalle, & Golec, 1989). Mattering was defined as how much adult students perceive their importance to the university they attend. The MHE were used to measure perceptions of the degree of mattering on five dimensions of postsecondary education: Administration, Advising, Interaction With Peers, Multiple Roles, and Faculty. This study focused on which non-academic variables or dimensions associated with "mattering" are important to non-traditional age students with respect to their perceived likelihood of completing their degree at UT-Arlington.

The population for this study consisted of undergraduate students from UT-Arlington who were 26 years of age and older and in good academic standing. The population was further limited to those students who had completed 30 or more hours at UT-Arlington. Data for the study were collected from the administration of the MHE survey which was given to a random sample of the UT-Arlington non-traditional age adult student population. No correlation was found to exist between students' mattering

scores and their intent to persist to graduation. However, significant statistical differences were found to exist in the Administration, Interaction With Peers, Multiple Roles, and Faculty subscales, denoting an interaction between gender and minority status. Significant statistical differences were also found by gender on the Advising subscale and by minority status on the Faculty subscale.

Discussion

An increase in non-traditional age students whose needs, expectations, and life experiences are different than the traditional college-age student has been examined by recent higher education research. The importance of adult students' perceptions of institutional support and responsiveness to student needs may effect persistence patterns (Davies, 1988; Kuh & Sturgis, 1980; Mooney, 1994). The concept of mattering and the MHE have been utilized to study the university environment in relation to students' persistence to degree attainment (Rosenberg & McCullough, 1981; Schlossberg, Lassalle, & Golec, 1989).

Overall, non-traditional age students at UT-Arlington feel they matter to the university, a perception that is shared by adult students at other institutions of higher education who have been administered the MHE (Mooney, 1994; Warner & Williams, 1995). The high mattering scores reflect a congruence between students and the UT-Arlington environment, which translates into student satisfaction and success (Klainberg, 1994).

Research question one asked: Which non-academic variables and/or characteristics of the university environment will non-traditional age undergraduate students

consider to be important to their Bachelor's degree completion at UT-Arlington? It was found that non-traditional age undergraduate students at UT-Arlington perceived the Interaction With Peers subscale to be the most important non-academic variable of the university environment. High scores on this subscale reflect a sense of feeling comfortable in the classroom and, most importantly, a sense of relating well with other students regardless of age. The age of peers may not have been a great influence on this study since the mean age of students at UT-Arlington is 26.8 years of age (UT-Arlington, 1997). However, in a study by Kuhrik (1996), it was determined that, regardless of age, adult students in higher education must be assured that they matter to the institution. The high mattering score on the Interaction with Peers subscale is similar to the results from a study by Warner & Williams (1995).

The Administration subscale also scored high in perception of importance with the sample in this study. High scores in this dimension reflect a feeling by adult students that campus policies are accommodating in terms of class time offerings, registration procedures, and paying of fees. In comparison, the lowest rated subscale concerning non-academic variables of the university environment was the Multiple Roles subscale. Low scores in this area reflect a perception that the university may not be flexible in terms of rules and policies which allow adult students to meet their other responsibilities. This difference in results between the two subscales could be due to the global nature of the survey questions where rephrasing of the items in terms of the individual university may have reduced the possibility of ambiguity of the subscale items.

Research question two asked: Are the scores of non-traditional age undergraduate students at UT-Arlington on the MHE related to their perception of the likelihood that they will complete their baccalaureate degrees? It was found that no relationship existed between students' mattering scores and their intent to persist to graduation at UT-Arlington.

These results reflect a difference from previous research which found a congruence between students and their university environment (Kuh & Sturgis, 1980), student satisfaction with the university community (Liu & Jung, 1980), and student integration in the university environment (Pascarella & Terenzini, 1991), all positively impacting a student's persistence to graduation. The results from this study are similar to Fauber's (1996) study, which found the persistence of adult students is not affected by their perceptions of the university environment or how much they "matter" to the institution they are attending. This may be explained several ways. The construct of mattering may not conceptualize the environmental issues important to adult students and/or the MHE does not properly operationalize the construct (Fauber, 1996). Further, since UT-Arlington has a large non-residential student population (8% of the total population live on campus), students who selected UT-Arlington as their college of choice did so for academic versus social reasons, which influenced their integration into the university environment (UT-Arlington, 1997). St. John, Paulsen, and Starkey (1996) found that if a student's precollege image of a university held to be true, the student was more likely to persist to graduation than if his/her preconception of the university went unfulfilled. This explanation is also reflected in the UT-Arlington 1994 Student Survey results that

showed the top two reasons students attended UT-Arlington were for its academic reputation and for its location. Additionally, the reason why mattering scores do not show a relationship to a student's intent to persist to graduation may be related to the adult population studied. The adult population studied (26 years of age and older) may possess a clearer understanding of personal and career goals that may be unaffected by "mattering" or the lack of mattering by universities (Fauber, 1996).

Research question three asked: Are there differences in mattering scores by gender and ethnicity? The study found significant statistical differences on each of the five subscales using two-way ANOVA. Significant differences on interaction between gender and minority status were found on the Administration, Interaction With Peers, Multiple Roles, and Faculty subscales. There were also statistical differences noted on gender for the Advising subscale and minority status on the Faculty subscale.

Moody's (1996) study found that adults' perceptions of the type of academic advising does not have a relationship to their feelings of "mattering" at their institutions. The gender variable in the Moody study did not present any significant statistical difference on the Advising subscale, which differs from the results of the present study which had males' mattering scores significantly different from females on the Advising subscale. The Advising subscale represents the only statistically significant gender variable difference in this study. The present study results may be related to the Moody study which found that a gender match between advisee and advisor had a significant effect on the mattering scores of the Advising subscale. No other conclusion can be drawn from the present research since information on the gender/minority status of academic

advisors was not part of the survey instrument. This area should perhaps be studied in future research related to "mattering."

Results on the Faculty subscale show a statistically significant difference on minority status where male and female minority students' mean scores were similar. All of the four groups (male, female, minority, non-minority) studied were high scorers on the Faculty subscale, which shows that students perceive that faculty members accept them in the classroom. These results support Gossett, Cuyjet, and Cockriel's (1996) study which found African American students' mattering scores reflected a perception of feeling comfortable with their university faculty. The present study did not break out different ethnic backgrounds from the self-reported minority status.

Results on the Administration, Interaction With Peers, Multiple Roles, and Faculty subscales showed a statistically significant interaction between gender and minority status. On each of these subscales, minority female students' mean scores were similar to non-minority male students. A review of literature did not reveal a study that examined gender and minority status and their relationship to the MHE.

Conclusions

This study revealed the following conclusions:

1. Gender and minority status effects a student's perception of mattering on the five subscales: Administration, Advising, Interaction With Peers, Multiple Roles, and Faculty.

2. The mattering scores are not a predictor of a student's intent to persist to graduation at UT-Arlington.

3. Non-traditional age undergraduate students with a minimum of 30 hours completed and in good academic standing feel they matter to UT-Arlington.

Recommendations

Based on the findings of this study the following recommendations for administrative practice are offered:

1. With respect to student life, programming to ensure peer interaction is recommended. Programmatic timing should be varied to allow the entire student body a chance to participate. According to UT-Arlington's 1994 Student Survey, 68.5% of the students responding did not participate in university-sponsored activities. On the same survey, students stated that the reason why they are prevented from attending campus-sponsored events is usually a class/work conflict (UT-Arlington, 1994). A recommendation for including students that commute to campus and miss campus-sponsored events would be to have audiotapes available which highlight various programs. This idea of using various forms of technology to include all students may also extend to the Internet where notes of campus lectures and events, along with photos, could be added to the school's web page.

2. With respect to gender issues, more programmatic consideration should be given to female students since 50.6% of UT-Arlington's population is female (UT-Arlington, 1997). Most importantly, campus childcare facilities should be reconsidered since the UT-Arlington co-sponsored daycare facility located on campus is due to close.

3. With respect to race issues, the university has been proactive with centers established for minority students. At present, the university has established the Center

for Mexican American Studies and the Africa Program. Most university campuses give more attention to African American programs while other groups receive fewer or no programs. Neglected groups such as students from Asian Pacific and Middle Eastern countries receive programs or campus-wide attention only during International Week which honors students from all nations.

4. With respect to the university maintaining its present policies that cause students to feel that they matter, the results of this study show that non-traditional age students at UT-Arlington feel they "matter." It would be in the university's best interest to be proactive with this population since, in the future, this will become the "new majority" student population. A recommendation for administration would be to create a center where students who commute can meet, relax, study, have access to communication and messages, store personal belongings, and be made to feel a greater sense of mattering by the university. At this time, no facility, including the present University Center, exists to fill this need. The center would need to be open during hours that non-traditional students tend to be on campus.

Also, based on the findings of this study, the following recommendations for further research are suggested:

1. a longitudinal study examining persistence and mattering scores;

2. additional research examining mattering scores and the perception to persist to graduation using non-traditional age undergraduate students with 30 hours or more completed at UT-Arlington with the additional variable of at least one semester on academic probation; and

3. additional research using an updated version of the "Mattering Scales For Adults Students in Higher Education," changing the language of the survey to be more representative of the institution being studied.

APPENDIX A

UT-ARLINGTON— USE OF HUMAN SUBJECTS

APPROVAL LETTER

UTA

THE UNIVERSITY OF TEXAS AT ARLINGTON

MEMORANDUM

TO: Office of Sponsored Projects

FROM: Karen B. Heusinkveld
Chairperson, UTA Human Research Review Committee

DATE: March 24, 1997

SUBJECT: Principal Investigator: Rebecca Walts/ Exercise, Sport & Health Studies

Title of Prospectus: Study of Non-academic Variables Related to Degree Completion of Non-traditional Age Undergraduate Students

The Human Research Review Committee has reviewed and approved the above named prospectus. The study is approved subject to annual review. Please submit an update of the status - current, terminated, or completed - on an annual basis to the Office of Sponsored Projects.

Approval carries with it the understanding that the principal investigator will inform the Committee promptly should any adverse reactions to biologicals, drugs, radioisotope labeled drugs, or to medical devices occur, concurrently notifying the Department of Health and Human Services on FD Form 1639, Drug Experience Report. Further, the principal investigator will make no modification of the protocol without prior approval of the committee. Files on each human subject should be kept readily available for periodic review.

With cooperation and assistance of the principal investigator, it is our goal to adhere as closely as possible to guidelines set forth by UTA and the Department of Health and Human Services.

3/7/96
KBH ew approval

SCHOOL OF NURSING
Box 19407 • Arlington, Texas 76019-0407 USA • Metro 817-272-2776 • FAX 817-272-5006

APPENDIX B

THE UNIVERSITY OF NORTH TEXAS—USE OF HUMAN SUBJECTS

APPROVAL LETTER

University of North Texas
Sponsored Projects Administration

July 2, 1997

Ms. Rebecca Walts
3013 Valerie Court
Arlington, TX 76013

Institutional Review Board for the Protection of Human Subjects in Research (IRB)
Re: Human Subjects Application No. 97-142

Dear Ms. Walts:

As permitted by federal law and regulations governing the use of human subjects in research projects (45 CFR 46), I have conducted an expedited review of your proposed project titled "A Study of Non-academic Institutional Variables Related To Degree Completion of Non-traditional Age Undergraduate Students at The University of Texas At Arlington." The risks inherent in this research are minimal, and the potential benefits to the subjects outweigh those risks. The submitted protocol and informed consent form are hereby approved for the use of human subjects on this project.

The UNT IRB must review this prior to any modifications you make in the approved project. Please contact me if you wish to make such changes or need additional information.

If you have questions, please contact me.

Sincerely,

Rollie Schafer
Chair, Institutional Review Board

RS:sb

cc: IRB Members

P.O. Box 305250 • Denton, Texas 76203-5250
(940) 565-3940 • FAX (940) 565-4277 • TDD (800) 735-2989
e-mail: lane@abn.unt.edu

APPENDIX C

SURVEY COVER LETTER

Dear_____,

Your participation in a survey of how adults students matter to the university they attend is needed. As a doctoral student in Higher Education Administration from the University of North Texas and a faculty member at The University of Texas at Arlington, I am conducting this study to gain information on how adult students perceive their university environment and if this has any effect on degree attainment. A sample of undergraduate students, 26 years of age and older with 30 hours or more completed at UTA were selected for this study. Your name was randomly selected from this group to complete the enclosed survey.

Participation will take approximately 15 minutes of your time to answer the survey and fill out the data sheet. The survey and instructions as to how they are to be completed have been included with this letter with the hopes that you will agree to participate. All data will be dealt with confidentially and no individual taking part in the study will be identified. Your participation is strictly voluntary.

Hopefully, you will find time in your busy schedule to participate in this study. Thank-you for your time and participation. I look forward to your early response.

Please call (817) 272-5170 if any questions arise.

Sincerely yours,

Rebecca Walts
UTA Aquatics Coordinator

This project has been reviewed and approved by the University of North Texas Committee for the Protection of Human Subjects (940) 565-3940.

APPENDIX D

THE MATTERING SCALES

MATTERING SCALES

Purpose

We are interested in learning more about the different ways in which adult learners feel they matter--to whom, under what circumstances, and what this means to them. To help us learn more about mattering, we would appreciate your taking the time to fill out this form. Also, please feel free to add any comments you wish to make.

Please circle the response which best describes your feelings. Please select a response for each item.

SD = STRONGLY DISAGREE **D** = DISAGREE **N** = NEITHER AGREE OR DISAGREE
A = AGREE **SA** = STRONGLY AGREE

	SD	D	N	A	SA
1. The university's policy of transfer credits penalizes non-traditional students.					
2. My advisor doesn't seem to remember things we have discussed before.					
3. I will have a hard time finishing my degree because of time limits on completing course requirements.					
4. The administration seems to consider adult student priorities as important as traditional student priorities.					
5. I get support from my classmates when I need it.					
6. My questions seem to put faculty members on the defensive.					
7. The faculty and administrators are sensitive to my other responsibilities.					
8. I sometimes feel alone and isolated at the university.					
9. The administrative rules and regulations are clear to me.					
10. My professors interpret assertiveness as a challenge to their authority.					
11. The administration sets things up to be easy for them, not the students.					

MATTERING SCALES

	SD	D	N	A	SA
12. It's hard for me to go back to the school environment.					
13. If my advisor didn't know the answer to my questions, I'm sure he or she would seek out the answers.					
14. The classroom atmosphere encourages me to speak out in class.					
15. I feel my classmates react positively to my experience and knowledge.					
16. My professors seem to recognize the younger students but not me.					
17. I don't have time to complete the administrative tasks this institution requires.					
18. There has always been someone on campus who could help me when I had a question or problem.					
19. I feel like I fit in my classes.					
20. The administration offices are not open at times when I need them.					
21. The administration makes efforts to accommodate adult students.					
22. I have a good relationship with my younger classmates.					
23. Sometimes I feel out of date in the classroom.					
24. The university does not commit enough resources to off-campus courses.					
25. There has always been an adviser available to talk with me if I need to ask a question.					

MATTERING SCALES

	SD	D	N	A	SA
26. My classmates would help me catch up to the new technologies if I needed it.					
27. My experience-based comments are accepted by my professors.					
28. It takes too long to register or correct registration problems.					
29. Administrative staff are helpful in answering my questions.					
30. Fellow students don't seem to listen to me when I share my life experiences.					
31. Unless I have another student my age in class, no one really understands how hard it is to be here.					
32. The university offers alternatives to the traditional semester-length course (like weekends).					
33. I have had adequate opportunities to get to know fellow students.					
34. Campus rules and regulations seem to have been made for traditional-age students.					
35. My age sometimes gets in the way of my interactions with fellow students.					
36. Some of the jokes my professors tell make me feel uncomfortable.					
37. Classes are offered at times that are good for me.					
38. As an adult student, I feel welcome on campus.					
39. The desks weren't made for adults.					

MATTERING SCALES

	SD	D	N	A	SA
40. I feel my activities fees are spent in a way that is meaningful to me.					
41. My advisor has office hours at times that I am on campus.					
42. Departmental rules sometimes make my goals difficult or impossible.					
43. The school newspaper doesn't discuss adult student issues.					
44. My professors sometimes ignore my comments or questions.					
45. I sometimes feel my professors want me to hurry up and finish speaking.					

46. I plan to complete my degree at UTA. Yes _____ No _____

APPENDIX E

MATTERING SCALE COMMENTS

- I believe I never had an experience that I felt comfortable or uncomfortable at UTA because of my age.
- At first difficult but hard to go back to the school environment.
- My schedule makes it difficult to socialize with other students.
- The biggest problem I have encountered is dealing with Administration. I'm an International Student and whenever I asked a question I was passed around on the phone to different people, they all had different answers. Nobody seemed to know. Now when I need to find out something I go to Dean of Department for answer.
- Sometimes I feel out of date in the classroom in computer class.
- Is there any organization for adult returning students? Sometimes I feel when I go to my Field Practice class that I am being treated like a child not as an adult. I was just told not to come back, and it was done behind my back.
- I sometimes feel alone and isolated at the university (Always).
- While I was a FT "worker" the university was not very accessible to my needs. Now that I an a FT student I am no longer constrained. However, I do feel the university is more oriented toward traditional students.
- The desks are uncomfortable for me a plus-sized women. I need to take Biology and Algebra because of scheduling I'll have to take these and possible other courses at another school.

- I don't know why as an evening student why I have to pay several of the administration fees (i.e., insurance). I have my own.
- Weekend classes would be great for me.
- I love UTA. I feel very welcome and have many friends. I am very upset with the disorganization of some departments. I have waited, more than 1 hour to see an advisor. I don't have this kind of time to waste. I have children to pick-up from school and other responsibilities—this is about my only complaint.
- They sent me a bill for $6.00 they forgot to charge me. The only reason I paid because they would hold my grades and degree because of their administrative error. No other business could get away with this.
- Every teacher has some comment during the semester about gays. Everyone.
- The school newspaper sucks.
- Students are UTA's last priority and enrollment reflects this.
- When I first started at UTA, I enrolled in an Engineering class called Statics. I was unaware of the drop date and was forced to take an F. The next time I took it I also got an F. I thought I would get at least a D. It was to short of a drop period. The GPA I have excludes whatever GPA I had at a previous institution, so the two F's I received at UTA killed my GPA. I have little motivation by other students. I did better at the previous institution because I had friends to study and compete with in most of my classes. This atmosphere does not exist for most adults (over 21) at UTA. Their (sic) were also a few kids in the Statics

class the second time that had a textbook with problems that were on the test hidden in the men's room. The TA allowed these students to go to the bathroom during the test.

- There are some major issues missed in this letter. UTA could benefit by getting teachers that speak English and that have professional experience. This would help explain why UTA's enrollment is down.
- Just based on what I have seen around campus *I am* the traditional-aged student. Younger students whose parents have the $ to send them away and whose grades are high enough, normally go to different universities. UTA student body's age on average is probably pretty close to 30, which is what I am. If anything, I think teachers appreciate me more than younger students.
- I have completed several surveys this semester and I think this is the only one with any sort of logical, intelligent questions.
- I will finish if they offer foreign language classes in the evening.
- Social work complex should be open until 6 pm. because most classes start at 6 p.m.—office closes at 5 pm.
- UTA seems to be geared toward the nighttime/non-traditional student. The classes I needed to graduate were only offered at night and I had to adjust my work schedule accordingly.
- Why do you charge for a lab fee for Spanish when you have to go to the lab on your own time? Why not fit it into the class hours?

- Don't use computer lab—have own computer or access to one—don't use work-out facility—use medical facility sometimes but have insurance from where I work-why not charge only the people that use facilities?
- Does a student's bad perception of their universities' environment *cause* a student to fail or drop out or is it an *effect* of other hidden factors. If hidden factors such as poor study habits or too little sleep, contribute to a student's failure, perhaps the student could be tempted to protect blame onto the institution instead of taking personal responsibility. If this is true, a survey such as this one may not expose such biases. It seems to me you would almost have to do in-depth individual student studies to rule out other biases before you can determine whether the student's bad perceptions is a cause or effect. Then, again, I'm merely an undergraduate. What do I know.
- The main thing that is hard for older, returning students is overcoming the initial feelings of inferiority to other students who have a fresh education. Many of my 4.0 friends who are also returning students still doubt their abilities despite their good grades. They still feel less than, as ridiculous as this sounds this fear of failure and of inferiority is extremely hard to shake for the older students that I know, even the very best ones. As for myself, it took 2 years to finally internalized what my advisors have told me all along: that older students usually score in the upper ranks of the class. I am finally confident in my ability.

- My department is wonderful, very supportive to older students. I have always felt welcome there, although my first semester, before I actually became involved in my department (Civil Engineering) it was very hard. Dealing with the Financial Aid office is the worst part of going to UTA; they mess up something every semester.
- Being a UTA student does not lend itself to being part of the university social scene. There is no feeling of being a part of a whole, just an individual doing what they need to do to succeed.
- I would like there to be more flexibility in transferring degree plans, not just individual courses. As a mom, I prefer day course and am about to get burned out with night course. Many of my upper level major course are only offered at night.
- Activities in clubs and their meetings are on MWF usually at noon. Adult students most of whom work are usually not on campus at these times. I have never been able to participate in the societies or departmental organizations because of the times of their meetings. I miss lectures from guest speakers etc. due to the day time meetings. In this respect I am out of the *loop* of student activities and it is difficult to establish relationship with students and professors which could be beneficial to my degree.
- Not enough evening and adult oriented get togethers are offered.
- As a pregnant student I can't always get behind the desk. They don't adjust.

- My advisor is often not there even when he has office hours . . .
- I feel privileged to have been included in your study!
- I have never felt left out at UTA, or that I didn't belong. However, it is nice to know that us "older" students are considered special!

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