

# Motivations and Barriers of Undergraduate Nontraditional Students in the College of Agricultural Sciences and Natural Resources at Texas Tech University<sup>1</sup>

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## **Abstract**

The purpose of this study was to determine the motivations and perceived barriers of nontraditional undergraduate students in the College of Agricultural Sciences and Natural Resources (CASNR) at Texas Tech University. The nontraditional students in this study perceived intrinsic motivation, task value, self-efficacy and internal locus of control as their largest motivations to continue their education. Furthermore, the findings of this study indicated intrinsic motivation served as the greatest motivational force. Conversely, the participants perceived extrinsic motivation and test anxiety as smaller sources of motivation in their educational pursuits. The nontraditional students in this study perceived institutional barriers (i.e., barriers pertaining to instruction and educational planning), to be the greatest barriers to continuing their education. More specifically, the participants perceived the lack of a nontraditional student office on campus, mentoring program and nontraditional student support group as the largest barriers to continuing their education. The implementation of a stronger support system for nontraditional students at the university level, could potentially mitigate the barriers faced by these students. With that in mind, future research should be conducted to examine the benefits of various nontraditional student resources. This information could aid CASNR in selecting programs to benefit their nontraditional students.

## **Introduction**

The latest report from the U.S. Department of Labor, Bureau of Labor and Statistics (2015) indicated an unemployment rate of 5% in the United States. The consequences of working or searching for a job, under the current economic pressures, have driven adult learners to remain "marketable and competitive"

(Milheim, 2005, p. 120). The transformation in the job market has led many adults to return to school. While this could account for a major portion of adult students entering higher education, there are other factors. Some factors to consider include: value in continuing education, advancement for career, retirement plans and job losses (Kenner and Weinerman, 2011).

First, it is imperative to define the meaning of an adult learner or nontraditional student. This can be a definition that varies from campus to campus. However, a review of the literature indicated many nontraditional students are categorized by age, 25 years or older, delayed enrollment into higher education, military service, employment status, enrollment status at the university and number of dependents other than a spouse (Bye et al., 2007; Senter and Senter, 1998; Scott and Lewis, 2012; Wyatt, 2011). By this definition, nontraditional students now make up approximately 74% of the student population (Radford et al., 2015). Within the student population, nontraditional students have the highest increase in enrollment since the 1980's (Compton et al., 2006).

With the increase in enrollment patterns, from nontraditional students, research related to this student population continues to grow. Although limited, past research indicated that nontraditional students are a very diverse population. Donaldson and Graham (1999) concluded that nontraditional students learn differently. Previous studies on nontraditional students indicated they are motivated differently to attend college, in comparison to their younger classmates (Kasworm, 2008); identify different support systems (Bean and Metzner, 1985; Donaldson and Graham; 1999); and experience institutional, informational, situational, or psychological barriers (Darkenwald and Merriam, 1982).

<sup>1</sup>The Texas Tech University Institutional Review Board approved the study protocol and consent was obtained from all participants prior to their involvement in this study.

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Institutions of higher education must acknowledge the shift in student populations (Scott and Lewis, 2012) and begin to serve this “increasing segment of college students” (Wyatt, 2011, p. 11).

The study of nontraditional students is a fairly new area of research; therefore, it is important to note that there are limited studies and theories associated with adult learners (Jinkens, 2009). Furthermore, research pertaining to nontraditional undergraduate students enrolled in agriculture courses is even more limited. It is evident though that nontraditional students have a variety of experiences that “adds academic validity” to the classroom (Scott and Lewis, 2012, p. 2). Aside from adding more real world experiences to the undergraduate environment, adult learners make sense of their life experiences through transformational learning (Mezirow, 2000). In the lens of transformational learning, learning is defined as “*the process of using a prior interpretation to construe a new or a revised interpretation of the meaning of one’s experience in order to guide future action*” (Merriam et al., 2007, p. 132).

Inside the classroom, nontraditional students not only bring experience, but also differences in motivation and barriers, when compared to traditional college students. Kasworm (2003) indicted that intrinsic and extrinsic motivation for learning is high in adult students. Additionally, Murphy and Roopchand (2003) discovered that between traditional and nontraditional students, nontraditional students reported higher levels of intrinsic motivation. While these studies provide some insight to the motivations of nontraditional students, Justice and Dornan (2001) found that “*few studies have examined nontraditional students’ motivation to achieve once enrolled in college*” (p. 237).

While nontraditional students are motivated, what challenges and barriers do they face while pursuing a degree? Darkenwald and Merriam (1982) propose that barriers can be categorized into institutional, informational, situational, or physiological. Institutional barriers focus around instruction and educational planning. Situational barriers pertain to issues such as transportation and childcare (Brassett-Grundy, 2002). Wyatt (2011) indicated universities need to focus on the various factors and attributes of this population of students, to better understand the barriers they face and to serve their unique needs. Furthermore, if institutions of higher education are still focusing on the traditional student and the number of nontraditional students continues to rise, the gap for what adult learners need will continue to widen.

Prior to the 1970’s, adult educators assumed that all members of a classroom learned the same. Since then, there has been a great deal of effort by researchers to identify how adult learners interact in the classroom and how they should be instructed. While there is no single theory that fully explains adult learning, there are many models that build a solid foundation for educators. The most notable theory on adult learning was proposed by Malcolm Knowles. Knowles coined the term andragogy,

which is the science and art of helping adults learn. Knowles’ theory of Andragogy was comprised of four original assumptions (as cited in Merriam et al., 2007): (a) as a person matures his or her self-concept moves from that of a dependent personality toward one of a self-directing human being, (b) an adult accumulates a growing reservoir of experience, which is a rich resource for learning, (c) the readiness of an adult to learn is closely related to the developmental tasks of his or her social role and (d) there is a change in time perspective as people mature from future application of knowledge to immediacy of application; thus, an adult is more problem centered than subject centered in learning (Merriam et al., 2007). Two additional assumptions are as follows: (e) the most potent motivations are internal rather than external (Knowles, 1984) and (f) adults need to know why they need to learn something (Knowles, 1984). While some of these assumptions often mirror the process of learning for early learners, experience coincides better with adult learners (Merriam and Cafarella, 1999).

### **Adult Learner Motivation**

Kasworm (2003) analyzed adult learners’ comprehension of their learning experiences in higher education and found that older adult students show higher degrees of intrinsic and extrinsic motivation. Intrinsic motivation is defined as the “doing of an activity for its inherent satisfactions rather than for some separable consequence” (Ryan and Deci, 2000, p. 56). Bye et al. (2007) indicated that a student who is intrinsically motivated will show characteristics of “autonomy and employ self-initiated exploratory strategies” (p.144). Ryan and Deci (2000) believe that intrinsic motivation occurs between the person and certain activities.

Justice and Dornan (2001), focusing on metacognition and motivation of nontraditional and traditional students, found “only older female students reported higher levels of intrinsic motivation” (p. 245). Bye et al. (2007) concluded that nontraditional students reported higher levels of intrinsic motivation than their younger classmates.

Ryan and Deci (2000) stated that “*extrinsic motivation is a construct that pertains whenever an activity is done in order to attain some separable outcome*” (p. 60). This area of motivation can become more ambiguous in nature. For example, students who are completing assignments for a grade or to avoid certain undesirable consequences are extrinsically motivated. These students are completing the assigned task for reasons that are not associated with internal factors. Students who are extrinsically motivated often want answers to procedural questions and not questions based off class content (Sansone and Smith, 2000). With the concept of extrinsic and intrinsic motivation, Deci et al. (1999) indicated extrinsic motivation can in fact change an individuals’ intrinsic motivation. Knowing the impact of these motivational constructs on adult learners can provide faculty members with tools to utilize in the classroom.

## Motivations and Barriers

### Adult Learner Barriers

The transition to college can be difficult for many students, but for nontraditional students there are additional barriers to overcome. Senter and Senter (1998) recognized the needs of nontraditional students have not been reviewed. After determining that adult learners are more intrinsically motivated and want more control over their learning activities than their younger classmates, it was suggested that institutions of higher education are hesitant to meet the needs of the growing nontraditional student population. This hesitation could be related to administration's fear of the cost associated with meeting the needs of these students (Senter and Senter, 1998). Thon (1984) determined many institutions of higher education were not adapting programs to meet the needs of nontraditional students, but expected students to modify their behaviors to fit into the more traditional programs. Family relationships have been identified as a critical barrier for nontraditional students returning to higher education (Donaldson and Graham, 1999). More specifically, it can be difficult for nontraditional students to plan their class schedule to coincide with their spouses' schedule and child care demands.

In addition to balancing their home and school lives, financial concerns can also serve as a barrier. Often, adult learners are returning to school to increase income, gain a certification, obtain a higher degree, or for self-satisfaction (Milheim, 2005). Family can influence the decision to return to school, continue education, or drop out. Financial stresses are usually subsided with part-time or full-time employment (Donaldson and Graham, 1999).

Similar to traditional students, adult learners are attending class and are employed on or off campus. Planning academic schedules that will work with family obligations and work can be challenging. Nontraditional students have difficulty enrolling in classes that are offered during regular times (Daniel, 2000). Offering evening classes and distance education classes (Vangen, 1998) can alleviate the stress that nontraditional students face when preparing semester schedules. Providing students with flexibility in educational planning can assist nontraditional students through their educational pursuit.

Within the classroom setting nontraditional students often face anxiety and many emotions that traditional students do not. According to Bishop-Clark and Lynch (1992), nontraditional students have a discomfort with younger and older classmates and find it hard to connect to faculty members. The classroom environment plays a major role in adult learners' collegiate experience. This idea is parallel with Donaldson and Graham Model of College Outcomes (1999) that indicated the classroom is the center point of nontraditional students' collegiate experience. If nontraditional students feel comfortable in the classroom environment they can add to the classroom by offering their experiences and real world approaches (Scott and Lewis 2012).

The transition to college can be difficult for students of all ages and backgrounds; however, adult learners

face numerous challenges from family obligations, financial resources, educational planning and classroom interaction.

### Purpose and Objectives

The purpose of this study was to determine the motivations and barriers of nontraditional undergraduate students in the College of Agricultural Sciences and Natural Resources (CASNR) at Texas Tech University. The following research objectives were used to guide the study:

- Determine undergraduate nontraditional student motivations in CASNR at Texas Tech University.
- Determine the perceived barriers faced by undergraduate nontraditional students in CASNR at Texas Tech University.

### Methods

#### Population

The accessible population consisted of 139 undergraduate nontraditional students enrolled in CASNR at Texas Tech University, during the fall semester of 2012. The sampling frame was obtained from the Student Success Center within CASNR. Texas Tech University defines a nontraditional student based solely on age. The frame for nontraditional students in this study was constructed based upon age (i.e., 25 years or older). Utilizing an online survey platform and incurring no additional monetary cost to study the entire population, a census was attempted in this study of CASNR nontraditional students. Participation in this study was completely voluntary and no incentives were given to complete the research study.

Forty-two students responded to the survey for a response rate of 30.2%. The gender breakdown of nontraditional students in this study consisted of 25 (59.5%) females and 17 (40.5%) male students. Thirty-five (83.3%) of the participants were Caucasian, four were Hispanic/Latino (9.5%) and two identified their ethnicity as multiracial ( $n = 2$ , 4.8%). In regard to marital status, 21 (50.0%) were married, 16 (38.1%) were single and a total of five students were currently divorced (11.9%). When asked to select their age based off the categories provided, participants most frequently selected 25-27 age range ( $n = 19$ , 45.2%), followed by 28-30 age range ( $n = 8$ , 19.0%), 31-33 age range ( $n = 3$ , 7.1%), 37-39 age range ( $n = 2$ , 4.8%), 40-42 age range ( $n = 1$ , 2.4%), 43-45 age range ( $n = 1$ , 2.4%), 46-48 age range ( $n = 3$ , 7.1%), 49-51 age range ( $n = 2$ , 4.8%) and 52-54 age range ( $n = 3$ , 7.1%). Over 40 % ( $n = 17$ ) of the nontraditional students indicated they were employed part-time, 28.6 % ( $n = 12$ ) held full-time employment and 16.7% ( $n = 7$ ) were unemployed.

When questioned about income, the greatest frequency of students identified with the \$10,000- \$19,999 income range ( $n = 9$ , 21.4%), whereas the lowest frequency of nontraditional students indicated their salary was in the \$125,000-\$149,999 income range ( $n = 1$ ,



2.4%). Participants were also questioned about their proximity of work in relation to campus. A total of 18 (42.9%) worked on campus, 17 (40.5%) had a 30-minute commute to work and one participant (2.4%) indicated they traveled over an hour to get to work. A majority of the nontraditional students in this study indicated they were enrolled full time, whereas 11 (26.2%) students were enrolled part-time. In regard to CASNR department the students were enrolled in, 18 (42.9%) were enrolled in the Department of Plant and Soil Science, followed by eight (19.0%) in the Department of Resources Management, six (14.3%) in the Department of Animal and Food Sciences, four (9.5%) in Department of Agricultural and Applied Economics, three (7.1%) in Department of Agricultural Education and Communications and three (7.1%) in the Department of Landscape Architecture.

Of the 42 participants, 11 (26.2%) nontraditional students indicated they had served in the military. When asked about their decision to continue education, participants were asked to select all that apply. Thirty-three (78.6%) were continuing their education to obtain a higher degree, 31 (73.8%) for personal satisfaction, 25 (59.5%) to improve their income, 18 (42.9%) to learn a new occupation, 12 (28.6%) to improve job skills, 11 (26.2%) to meet job requirements and four (9.5%) to obtain or maintain certification.

### **Design**

A descriptive explanatory design was used in this quantitative study on the motivations and perceived barriers of nontraditional undergraduate students in CASNR at Texas Tech University. This study sought to determine the nontraditional students' motivations and perceived barriers in completing their undergraduate degree. A 59 item instrument was distributed amongst the nontraditional students enrolled in CASNR at Texas Tech University. Utilizing the Qualtrics Survey Platform, an online survey instrument was created and distributed to the participants to collect descriptive data for this study. All nontraditional students who participated in this study received the same survey instrument.

### **Instrumentation**

The 59 item instrument utilized in this study of nontraditional college students sought to describe the students' demographics, motivation strategies for learning and perceived barriers to continuing their education. The demographic questions inquired about the participants' gender, age, marital status, ethnicity, employment status, income, enrollment within department, decision to continue education, current enrollment status, work hours per week, proximity to work and military service.

The Motivated Strategies for Learning Questionnaire (Pintrich et al., 1991) was utilized in this study to determine the nontraditional students' motivation strategies. The first 31 items of the Motivated Strategies for Learning Questionnaire were used and no significant changes were made to the original instrument. The nontraditional students rated themselves on a seven-point

Likert-type scale, ranging from "not at all true of me" (1) to "very true of me" (7). The remaining 11 questions focused on the barriers nontraditional students face in their education. The barriers included, financial aid for students, planning academic schedules, preparation for college, graduation requirements, family support and university support. The items addressing barriers were comprised of seven-point Likert-type scales, ranging from "not at all true of me" (1) to "very true of me" (7).

The three-part instrument was originally developed online using Qualtrics, due to licensing requirements with Texas Tech University, Qualtrics was replaced as a source for data collection requiring the instrument to be placed on Survey Monkey. Participation was voluntary and anonymous. Participants could skip questions or stop at any time during the process.

### **Reliability and Validity**

To establish reliability for the instrument utilized in this study, a pilot study was conducted. The pilot study was administered to 23 undergraduate nontraditional agricultural students at a four-year institution in the Midwest. The potential participants in the pilot study were sent an email which included the purpose of the study, clause of confidentiality and a link to access the instrument. A total of 13 participants completed the pilot study instrument.

At the conclusion of the pilot study, a reliability analysis was conducted using the IBM Statistical Package for the Social Sciences (SPSS) version 18.0 for windows. The overall Cronbach's alpha coefficient for items that were modified from the Motivated Strategies for Learning Questionnaire (Pintrich et al., 1991) was 0.89. Cronbach's alpha coefficient was also conducted on the subscales: intrinsic motivation was 0.85, extrinsic motivation was 0.62, task value was 0.86, control of learning beliefs was 0.35, self-efficacy for learning was 0.68 and test anxiety was 0.83. In comparison to previously reported Cronbach alpha levels all subscales were close or parallel to results (Pintrich et al., 1991). While extrinsic motivation, control of learning beliefs and self-efficacy were not in the acceptable range for reliability subsequent changes were made to increase reliability. Additionally, reliability was tested on the barriers of nontraditional students that were developed from the review of literature. The Cronbach alpha coefficient was 0.70 which is in the acceptable range for reliability. Overall, the instrument was found to be reliable. To establish face and content validity, the instrument was sent to a panel of experts at Texas Tech University and Murray State University. The professors at both universities found the instrument to be valid.

### **Data Collection**

Data was collected for this study from October through November of 2012. All undergraduate nontraditional students in CASNR during the fall of 2012, received a recruitment email. The recruitment email included a description of the study, clause of confiden-

## Motivations and Barriers

tiality and a link to access the online instrument. The initial recruitment email was sent on October 12, 2012, followed by subsequent reminder emails on October 22 and November 2, 2012. The distribution schedule, developed by Ary et al. (2010), was utilized in this study.

To account for non-response error in this study, the early respondents were compared to the late respondents. Extrapolation methods in this method of controlling for non-response error are based on the concept that late respondents are similar to non-respondents (Armstrong and Overton, 1977; Pace, 1939). Linder et al. (2001) recommended that late respondents be defined as “those who respond in the last wave of respondents in successive follow-ups to a questionnaire, that is, in response to the last stimulus” (p. 52). Based on Linder et al.’s (2001) recommendations, the late respondents in this study were operationalized as the respondents who responded after the last reminder email (i.e., November 2, 2012). No differences were found between the early and late respondents to primary variables of interest; therefore, non-response error was not found to be a threat to the external validity of the study. After removal of partially completed instruments (n = 2), a total of 44 students responded, accounting for a response rate of 32%. Dillman et al. (2009) stated 25% response rate is acceptable with online survey research.

Although the aforementioned noted steps were taken to guarantee a methodologically sound approach, limitations and assumptions existed. To assess the non-traditional students’ characteristics, it was assumed that respondents identified with the nontraditional student characteristics included in the instrument. Previous studies have rendered various definitions of non-traditional students (Brock, 2010; Choy, 2002; Horn, 1996; Kim, 2002; Taniguchi and Kaufman, 2005); the lack of a universally accepted definition of a nontraditional student was a limitation in this research study. In addition, the lack of a probabilistic sampling technique served as a limitation and caution should be taken when making generalizations from this data.

## Data Analysis

Data were analyzed using the Statistical Package for the Social Sciences (SPSS) version 18.0. Demographic information and descriptive statistics were reported for measures of central tendency and variability. Scores were summated for the 31 items under the motivation construct, as well as the subscales (i.e., intrinsic motivation, extrinsic motivation, task value, learning beliefs, self-efficacy and test anxiety). Frequencies and percentages as well as the overall means and standard deviations were reported for each.

## Results and Discussion

Objective one sought to determine undergraduate nontraditional student motivations in CASNR at Texas Tech University. Means, standard deviations, frequency counts and percentages were calculated to report on this objective. The motivations of nontraditional stu-

dents were determined utilizing the Motivated for Learning Strategies Questionnaire (Pintrich et al., 1991). The first 31 questions were used, that include six subscales; intrinsic motivation, extrinsic motivation, task value, control of learning beliefs, self-efficacy and test anxiety. Questions were based on a seven-point Likert-type scale, ranging from not at all true of me to very true of me. For clarity on the findings the researcher categorized the averages and will be reported as follows: 1–2.49 = not true of me, 2.50–3.49 = hardly ever true of me, 3.50–4.49 = occasionally true of me, 4.50–5.49 = sometimes true of me, 5.50–6.49 = almost always true of me and 6.50–7 = very true of me.

Four statements were asked that pertained to the area of intrinsic motivation. All four statements had an average that fell in the category of almost always true of me. Participants reported the highest average (M = 6.12, SD = 0.94) on the statement “the most satisfying thing for me, in my major, is trying to understand the content as thoroughly as possible”, followed by “in my classes I prefer course material that arouses my curiosity, even if it is difficult to learn” (M = 6.10, SD = 1.09). Also reported, “in my major, I prefer course material that really challenges me, so I can learn new things” (M = 5.86, SD = 1.22) and concluded with “when I have the opportunity I choose course assignments that I can learn from even if they do not guarantee a good grade” (M = 5.60, SD = 1.36). The summated average was 5.94 with a standard deviation of 0.91 (see Table 1). The subscale of intrinsic motivation had the greatest summated average of all subscales in this study.

Six statements were asked that pertained to the area of task value. The first five statements had an average that fell in the category of almost always true of me. Participants reported the greatest average (M = 6.24, SD = 1.12) on the statement “it is important for me to learn the course material in each class.” “I like the subject matter of all my major courses” (M = 5.26, SD = 1.61), which identified with the category of sometimes true of me, was the only task value subscale statement which was not identified to be almost always true of me.

**Table 1. Summated Averages for Motivation Subscales**

Subscale	M	SD
Intrinsic Motivation	5.94	0.91
Task Value	5.79	0.94
Self-Efficacy	5.61	1.10
Control of Learning Belief	5.57	1.08
Extrinsic Motivation	5.45	1.20
Test Anxiety	4.53	1.70

**Table 2. Subscale of Intrinsic Motivation (n = 42)**

Statement	M	SD
The most satisfying thing for me, in my major, is trying to understand the content as thoroughly as possible.	6.12	0.94
In my classes I prefer course material that arouses my curiosity even if it is difficult to learn.	6.10	1.09
In my major, I prefer course material that really challenges me so I can learn new things.	5.86	1.22
When I have the opportunity, I choose course assignments that I can learn from, even if they do not guarantee a good grade.	5.60	1.36
Summated score for subscale	5.94	0.91

Note. 1 = Not at all true of me, 7 = Very true of me.

**Table 3. Subscale of Task Value**

Statement	M	SD
I am very interested in the content area of my classes, in my major. (n = 42)	6.24	1.30
It is important for me to learn the course material in each class. (n = 42)	6.24	1.12
I think course material in my classes, in my major, is useful for me to learn. (n = 41)	5.90	1.28
Understanding the subject matter in each course is very important to me. (n = 40)	5.83	1.13
When I think about my classes, in my major, I will be able to use what I learn in other classes. (n = 41)	5.80	1.12
I like the subject matter of all my major courses. (n = 42)	5.26	1.61
Summated score for subscale	5.79	0.94

Note. 1 = Not at all true of me, 7 = Very true of me.

**Table 4. Subscale of Self-Efficacy**

Statement	M	SD
I'm confident I can learn the basic concepts taught in each class, in my major. (n = 42)	6.38	0.91
I expect to do well in my classes. (n = 42)	5.83	1.40
I'm certain I can master the skills being taught in my classes, in my major. (n = 42)	5.64	1.14
I'm confident I can understand the most complex material presented by my instructors, in my major. (n = 41)	5.59	1.22
I'm confident I can do an excellent job on assignments and tests in each class. (n = 41)	5.44	1.48
I am certain I can understand the most difficult material presented in the readings, in my major. (n = 42)	5.33	1.30
Considering the difficulty of classes, the teachers, and my skills, I think I will do well this semester (n = 42)	5.31	1.47
I believe I will receive excellent grades in my classes. (n = 42).	5.17	1.49
Summated score for subscale	5.61	1.10

Note. 1 = Not at all true of me, 7 = Very true of me.

Task values' summated average was 5.79 (SD = 0.94), which was considered to be almost always true of me.

Eight statements were asked that pertained to the area of self-efficacy. The first four statements had an average that fell in the category of almost always true of me. Participants reported the highest average (M = 6.38, SD = 0.91) on the statement "I'm confident I can learn the basic concepts taught in each class, in my major," followed by "I expect to do well in my classes" (M = 5.83, SD = 1.40). Also reported, "I am certain I can master the skills being taught in my classes, in my major" (M = 5.64, SD = 1.14), "I'm confident I can understand the most complex material, presented by my instructors, in my major" (M = 5.59, SD = 1.22). The final four statements fell into the category sometimes true of me, "I'm confident I can do an excellent job on assignments and tests in each class" (M = 5.44, SD = 1.48), "I am certain I can understand the most difficult material presented in the readings, in my major" (M = 5.33, SD = 1.30), "considering the difficulty of classes, the teachers and my skills, I think I will do well this semester" (M = 5.31, SD = 1.47) and concluded with "I believe I will receive excellent grades in my classes" (M = 5.17, SD = 1.49). The summated average was 5.61 with a standard deviation of 1.10. The summated average for self-efficacy fell into the category almost always true of me.

For this subscale four questions were asked that related to control of learning beliefs. All four statements fell into the category of almost always true of me. The highest average (M = 6.24, SD = 1.12) was reported with the statement "it is my own fault if I do not learn

the material in each class," followed by "if I try hard enough then I will understand the material in each class" (M = 6.24, SD = 1.30). The third rated statement was "if I do not understand the course material in a class, it is because I did not try hard enough" (M = 5.90, SD = 1.28), concluding with "if I study in appropriate ways, I will be able to learn the material in all my classes" (M = 5.80, SD = 1.12). On the subscale for control of learning beliefs the summated values were (M = 5.57, SD = 1.08). The summated average for control of learning beliefs fell into the category of almost always true of me.

Four questions were asked that related to the extrinsic motivation subscale. The two statements with the highest average reported fell into the category of almost always true of me. The highest average was reported with the statement "if I can, I want to receive better grades than most of the students in my class" (M = 5.74, SD = 1.59), followed by "receiving good grades is the most satisfying thing for me right now" (M = 5.52, SD = 1.37). The final two statements fell into the category of sometimes true of me. When asked "I want to do well in my classes because it is important to show my ability to my family, friends, or others" (M = 5.37, SD = 1.98), concluding with "the most important thing for me right now is improving my overall GPA, so my main concern is getting a good grade in each class" (M = 5.24, SD = 1.75). On the subscale of extrinsic motivation, the summated values were (M = 5.24, SD = 1.20). The summated average for extrinsic motivation fell into the category of sometimes true of me.

For this subscale five questions were asked that related to test anxiety. The first four statements fell into the category of sometimes true of me. Participants reported, (M = 4.95, SD = 2.12), on the statement, "when I take tests I think of the consequences of failing" followed by "I become very anxious when I take an exam" (M = 4.95, SD = 2.26). The final statement fell

**Table 5. Subscale of Control of Learning Beliefs**

Statement	M	SD
If I try hard enough, then I will understand material in each class. (n = 42)	6.24	1.30
It is my own fault if I do not learn the material in my classes. (n = 42)	6.24	1.12
If I do not understand the course material in a class, it is because I didn't try hard enough. (n = 42)	5.90	1.28
If I study in appropriate ways, I will be able to learn the material in all my classes. (n = 41)	5.80	1.12
Summated score for subscale	5.57	1.08

Note. 1 = Not at all true of me, 7 = Very true of me.

**Table 6. Subscale of Extrinsic Motivation**

Statement	M	SD
If I can, I want to receive better grades than most of the other students, in my classes. (n = 42)	5.74	1.59
Receiving good grades is the most satisfying thing for me right now. (n = 42)	5.52	1.37
I want to do well in all my classes because it is important to show my ability to my family, friends, or others. (n = 41)	5.37	1.98
The most important thing for me right now is improving my overall GPA, so my main concern is getting a good grade in each class. (n = 42).	5.24	1.75
Summated score for subscale	5.45	1.20

Note. 1 = Not at all true of me, 7 = Very true of me.



## Motivations and Barriers

into the category occasionally true of me, “when I take a test I think about how poorly I am doing compared to other students” ( $M = 3.55$ ,  $SD = 2.07$ ). On the subscale for test anxiety the summated values were ( $M = 4.53$ ,  $SD = 1.70$ ). The summated average for test anxiety fell into the category sometimes true of me.

Objective two sought to determine undergraduate nontraditional student barriers in CASNR at Texas Tech University. Questions were based on a seven-point Likert-type scale, ranging from not at all true of me to very true of me. For clarity on the findings the researcher categorized the averages and will be reported as follows: 1–2.49 = not true of me, 2.50–3.49 = hardly ever true of me, 3.50–4.49 = occasionally true of me, 4.50–5.49 = sometimes true of me, 5.50–6.49 = almost always true of me and 6.50–7 = very true of me.

Eleven statements were asked that pertained to barriers. The nontraditional students identified the lack of a nontraditional student office on campus ( $M = 4.78$ ,  $SD = 2.19$ ), lack of mentoring/tutoring program in CASNR ( $M = 4.24$ ,  $SD = 2.36$ ) and lack of nontraditional support groups ( $M = 3.93$ ,  $SD = 2.40$ ) as the largest perceived barriers to continuing their education (see Table 2). Conversely, the statement which the nontraditional students perceived to be the smallest barrier was “my family and friends support my decision to further my education” ( $M = 6.60$ ,  $SD = 0.73$ ).

## Summary and Recommendations

The nontraditional undergraduate students in this study reported the greatest summated mean score for intrinsic motivation, in comparison to the other motivation subscales. This finding coincides with previous research (Bye et al., 2007; Murphy and Roopchand, 2003) which indicated nontraditional students have high levels of intrinsic motivation, especially in comparison to traditional students. The high levels of intrinsic motivation indicated by the nontraditional students may imply their motivation to continue their education is for inherent satisfaction. The students with high levels of intrinsic motivation might also show characteristics of autonomy and employ self-initiated exploratory strategies (Bye et al., 2007).

When the nontraditional students were questioned about the task value they associated with their education, the respondents indicated high levels of task values ( $M = 5.79$ ,  $SD = 0.94$ ). The high levels of task value scores imply that the students associate their post-secondary education with positive task value. Previous research indicated that individuals tend to carry out task they positively value and avoid negatively valued task (Atkinson, 1957, 1966; Eccles et al., 1983; Feather, 1982). Furthermore, positive task value is associated with task which provide enjoyment and allow the individual to achieve long and short range goals (Wigfield and Eccles, 1992).

In regard to self-efficacy, the nontraditional students indicated the statement “I am confident I can learn the basic concepts taught in each class, in my major” was most true of them. The perceived self-efficacy of the students varied on the eight items of the instrument and “I believe I will receive excellent grades in my classes” was the statement nontraditional students indicated the lowest level of agreement with. These findings coincided with Bandura’s (1982) research, which indicated self-efficacy is task-specific, as opposed to a general sense of self-esteem. Furthermore, Bandura (1982) emphasized self-efficacy is concerned with courses of action, rather than merely the outcome. It can be implied that the nontraditional students in this study associate greater levels of self-efficacy with specific task related to their major.

The nontraditional undergraduate students in this study reported high levels of internal locus of control (LOC). Britt et al. (2013) indicated individuals who are internally driven believe that future events are determined by their own behavior. Individuals with internal locus of control (ILOC) are more likely to be more alert in their environment, are concerned with their ability, take steps to improve their environment and are more resistant to subtle attempts to influence them (Rotter, 1966; Speck, 1996). An implication can be made that the nontraditional students in this study, with high levels of ILOC, hold themselves accountable for their educational success. To enhance the education of students with higher levels of ILOC, it is recommended the learner has the opportunity to provide input and have some control over the learning method, learning environment, materials and evaluation of learning effectiveness. According to Speck (1996), individuals with higher levels of ILOC are more likely to engage in self-directed learning (SDL).

**Table 7. Subscale of Test Anxiety**

Statement	M	SD
When I take tests I think of the consequences of failing. ( $n = 41$ )	4.95	2.12
I become very anxious when I take an exam. ( $n = 42$ )	4.95	2.26
While taking a test, I think about items on other parts of the test I can't answer. ( $n = 42$ )	4.69	1.94
I have an uneasy, upset feeling when I take an exam. ( $n = 42$ )	4.57	2.30
When I take a test I think about how poorly I am doing compared with other students. ( $n = 42$ )	3.55	2.07
Summated score for subscale	4.53	1.70

Note. 1 = Not at all true of me, 7 = Very true of me.

**Table 8. Frequency and Variability of Participants Perceived Barriers**

Statement	Barrier Rank	M	SD
An office for nontraditional students at the University would be beneficial. ( $n = 41$ )	1	4.78	2.19
I would benefit from a mentoring/tutoring program in my major. ( $n = 42$ )	2	4.24	2.36
Having a nontraditional support group on campus would assist in my educational experience. ( $n = 41$ )	3	3.39	2.40
I need more guidance about financial aid for students my age. ( $n = 41$ )	4	3.88	2.28
I need help learning about graduation requirements. ( $n = 42$ )	5	3.29	2.11
I need help when planning classes around my work schedule. ( $n = 41$ )	6	3.85	1.89
I need assistance with learning how to transfer prior credits. ( $n = 42$ )	7	2.62	2.00
I am able to meet with Professors when needed. ( $n = 41$ ) <sup>z</sup>	8	4.92	2.11
I attended orientation and was prepared for college. ( $n = 41$ ) <sup>z</sup>	9	5.22	2.09
I would benefit from childcare services. ( $n = 42$ )	10	1.90	1.89
My family and friends support my decision to further my education. ( $n = 42$ ) <sup>z</sup>	11	6.60	0.73

Note. <sup>z</sup> Statement is written as higher number equals lower barrier.

In regard to motivation, the nontraditional students perceived their intrinsic motivation to be greater than extrinsic motivation. This finding is consistent with other studies (Anderson, 2013; Bye et al., 2007) and coincides with Knowles' (1984) assumption of andragogy which states "the most potent motivations are internal rather than external" (p. 12). The students identifying closer with aspects of intrinsic motivation might imply that their reasons to continue their education are lined to personal satisfaction. Although the students indicated higher levels of intrinsic motivation, the students perceived the extrinsic motivation statements to be sometimes true about themselves. Previous studies on motivation have indicated that external motivators are sometimes necessary to begin an action (Deci et al., 1994; Deci and Ryan, 1985). Furthermore, other studies have concluded that extrinsic motivation can alter an individual's intrinsic motivation (Deci et al., 1999). Therefore, the moderate levels of extrinsic motivation, indicated by the nontraditional students, may serve as a catalyst to enhancing their levels of intrinsic motivation. It is recommended that professors, who instruct nontraditional students, consider the source of their students' motivation, when planning and implementing lessons. Motivating the students with feedback and constructive criticism might be more valuable to the intrinsically motivated students, as opposed to grades (i.e., extrinsic motivator). To identify other motivational factors of nontraditional students, not included in this study, a qualitative study should be conducted on nontraditional students' motivations to continue their education.

Objective two sought to determine the perceived barriers of undergraduate nontraditional students in continuing their education. The nontraditional students in this study perceived institutional barriers (i.e., barriers pertaining to instruction and educational planning), to be the greatest barriers to continuing their education. More specifically, the students perceived the lack of a nontraditional student office on campus, mentoring program and support group for nontraditional students as the largest barriers to continuing their education. This may imply the nontraditional students need more structured support systems in order to thrive in a traditional setting. Thon (1984) suggested this problem might be attributed to the institutions of higher education who are reluctant to adapt to the needs of nontraditional students and expect nontraditional students to modify their behaviors to fit into the more traditional programs.

It is recommended that post-secondary institutions implement programs to lend support to the nontraditional students enrolled in their programs. Universities should provide nontraditional students with library and online resources which are available to students at all hours—to accommodate their various schedules. Furthermore, a nontraditional student center should be established on campus in order to provide mentoring programs and host social activities. Previous research has indicated that students with higher levels of social integration are more likely to continue enrollment (Community College

Survey of Student Engagement, 2005; Muench, 1987). The social activities should cater toward older students and their families; it is important that campus administrators and faculty effectively communicate with nontraditional students about student services and academic programs available to them (Benshoff and Lewis, 1992; Thorn, 1984). Before taking action to accommodate adult learners, universities should conduct an assessment to identify perceived barriers of nontraditional students. Klein-Collins (2011) recommended the use of the Institutional Self-Assessment Survey (ISAS) and the Adult Learner Inventory (ALI). The use of these two instruments would allow the comparison of faculty and administration views of current adult programs with the perceptions of the adult learners (Klein-Collins, 2011).

With that in mind, further research should be conducted to examine the benefits of various nontraditional student support systems and resources. Information from this study could potentially aid colleges of agriculture in selecting and implementing programs to benefit their nontraditional students. Conversely, the nontraditional students perceived the support from friends and family as the smallest barrier to continuing their education. With the support of family and friends being the smallest perceived barrier, it can be implied that this aspect of the nontraditional student's life might serve as a form of assistance. Findings from previous studies also indicate the support from friends and family is an important resource to nontraditional students (Compton and Schock, 2000; Donaldson and Graham, 1999; Justice and Dornan, 2001). Nontraditional students should seek support from their friends and family when deciding to continue their education.

### **Literature Cited**

- Anderson, J.C. 2013. An exploration of the motivational profile of secondary urban agriculture students. *Journal of Agricultural Education* 54(2): 205-216. DOI:10.5032/jae.2013.02205
- Armstrong, J.S. and T.S. Overton. 1977. Estimating nonresponse bias in mail surveys. *Journal of Marketing Research* 14(3): 396-402. <http://www.jstor.org/stable/3150783>
- Ary, D., L.C. Jacobs and C. Sorensen. 2010. *Introduction to research in education*. 8th ed. Belmont, CA: Wadsworth Publishing.
- Atkinson, J.W. 1957. Motivational determinants of risk taking behavior. *Psychological Review* 64(1): 359-372. <http://dx.doi.org/10.1037/h0043445>
- Atkinson, J.W. 1966. *Motivational determinants of risk taking behavior: A theory of achievement motivation*. New York, NY: Wiley.
- Bandura, A. 1982. Self-efficacy mechanism in human agency. *American Psychologist* 37(2): 122.
- Bean, J.P. and B.S. Metzner. 1985. A conceptual model of nontraditional undergraduate student attrition. *Review of Educational Research* 55(4): 485-540. DOI:10.3102/00346543055004485



## Motivations and Barriers

- Benshoff, J.M. and H.A. Lewis. 1992. Nontraditional college students. *ERIC Digest*.
- Bishop-Clark, C. and J. Lynch. 1992. The mix-age college classroom. *College Teaching* 40(3): 114-117. DOI:10.1080/87567555.1992.10532229
- Braslett-Grundy, A. 2002. Parental perspectives of family learning: Wider benefits of learning research report. London: Centre for Research on the Wider Benefits of Learning.
- Britt, S., J.A. Cumbie and M.M. Bell. 2013. The influence of locus of control on student financial behavior. *College Student Journal* 47(1): 178-184. <https://www.questia.com/library/journal/1G1-345882738/the-influence-of-locus-of-control-on-student-financial>
- Brock, T. 2010. Young adults and higher education: Barriers and breakthroughs to success. *The Future of Children* 20(1): 109-132.
- Bye, D., D. Pushkar and M. Conway. 2007. Motivation, interest and positive affect in traditional and non-traditional undergraduate students. *Adult Education Quarterly* 57(2): 141-158. DOI:10.1177/07417136-06294235
- Choy, S. 2002. Nontraditional undergraduates (NCES 2002-012). National Center for Education Statistics, U.S. Department of Education. Washington, DC.
- Community College Survey of Student Engagement. 2005. Engagement by design: Summary of 2004 findings. [http://www.ccsse.org/publications/CCSSE\\_reportfinal2004.pdf](http://www.ccsse.org/publications/CCSSE_reportfinal2004.pdf).
- Compton, J.I., E. Cox and F.S. Laanan. 2006. Adult learner in transition. *New Directions for Student Services* 114: 73-80. DOI:10.1002/ss.208
- Compton, M. and C. Schock. 2000. The non-traditional student in you. *Women in Business* 52(4): 14.
- Daniel, E. 2000. A review of time-shortened courses across disciplines. *College Student Journal* 34(2): 298. <https://www.questia.com/read/1G1-131318276/a-review-of-time-shortened-courses-across-disciplines>
- Darkenwald, G. and S. Merriam. 1982. *Adult education: Foundations of practice*. New York, NY: Harper and Row.
- Deci, E.L. and R.M. Ryan. 1985. *Intrinsic motivation and self-determination in human behavior*. New York, NY: Plenum.
- Deci, E.L., H. Eghrari, B.C. Patrick and D.R. Leone. 1994. Facilitating internalization: The self-determination theory perspective. *Journal of Personality* 62(1): 119-142. DOI:10.1111/j.1467-6494.1994.tb00797.x
- Deci, E.L., R. Koestner and R.M. Ryan. 1999. A meta-analytic review of experiments examining the effects of extrinsic rewards on intrinsic motivation. *Psychological Bulletin* 125(6): 627-668. DOI:10.1037/0033-2909.125.6.627
- Dillman, D.A., J.D. Smyth and L.M. Christian. 2009. *Internet, mail and mixed-mode surveys: The tailored design method*. Hoboken, NJ: John Wiley and Sons.
- Donaldson, J.F. and S. Graham. 1999. A model of college outcomes for adults. *Adult Education Quarterly* 50(1): 24-40. DOI:10.1177/074171369905000103
- Eccles, J., T.F. Adler, R. Futterman, S.B. Goff, C.M. Kaczala, J.L. Meece and C. Midgley. 1983. Expectancies, values and academic behaviors. In J.T. Spence (ed.), *Achievement and achievement motivation* (pp. 75-146). San Francisco, CA: Freeman.
- Feather, N.T. 1982. Expectancy-value approaches: Present status and future directions. In N. T. Feather (ed.), *Expectations and actions: Expectancy-value models in psychology* (pp. 395-420). Hillsdale, NJ: Erlbaum.
- Horn, L. 1996. Nontraditional under-graduates: Trends in enrollment from 1986 to 1992 and persistence and attainment among 1989-90 beginning postsecondary students (NCES 97-578). National Center for Education Statistics. U.S. Department of Education. Washington, DC.
- Jenkins, R.C. 2009. Nontraditional students: Who are they? *College Student Journal*. 43(4): 979-987. <http://eric.ed.gov/?id=EJ872313>
- Justice, E.M. and T.M. Dornan. 2001. Metacognitive differences between traditional-age and nontraditional-age college students. *Adult Education Quarterly* 51(3): 236-249. DOI:10.1177/074171360105100305
- Kasworm, C.E. 2003. Adult meaning making in the undergraduate classroom. *Adult Education Quarterly* 53(2): 81-98. DOI: 10.1177/07417136022338905
- Kasworm, C.E. 2008. Emotional challenges of adult learners in higher education. *New Directions for Adult and Continuing Education* 120(1): 27-34. DOI:10.1002/ace.313
- Kenner, C. and J. Weinerman. 2011. Adult learning theory: Applications to non-traditional college students. *Journal of College Reading and Learning* 41(2): 87-96. DOI:10.1080/10790195.2011.10850344
- Kim, K.A. 2002. ERIC review: Exploring the meaning of "nontraditional" at the community college. *Community College Review* 30 (1): 74-89.
- Klein-Collins, R. 2011. Strategies for becoming adult-learning-focused institutions. *Peer Review* 13(1): 1-4.
- Knowles, M.S. 1984. *Andragogy in action*. San Francisco, CA: Jossey-Bass Publishers.
- Lindner, J.R., T.H. Murphy and G.E. Briers. 2001. Handling nonresponse in social science research. *Journal of Agricultural Education* 42(4): 43-53. DOI:10.5032/jae.2001.04043
- Merriam, S.B. and R.S. Caffarella. 1999. *Learning in adulthood: A comprehensive guide*. 2nd ed. San Francisco, CA: Jossey-Bass.
- Merriam, S.B., R.S. Cafferella and L.M. Baumgartner. 2007. *Learning in adulthood: A comprehensive guide*. 3rd ed. San Francisco, CA: Jossey-Bass.
- Mezirow, J. 2000. *Learning as transformation: Critical perspectives on a theory in progress*. 3rd ed. San Francisco, CA: Jossey-Bass.
- Milheim, K. 2005. Identifying and addressing the needs of adult students in higher education. Australian

- Journal of Adult Learning 45(1): 118-128. <http://eric.ed.gov/?id=J797643>
- Muench, K.E. 1987. A comparative study of the psychosocial needs of adult men and women students in an adult degree program. In: Proc. 22nd Annual Mtg. of the American Association for Adult and Continuing Education. Washington, DC.
- Murphy, H. and N. Roopchand. 2003. Intrinsic motivation and self-esteem in traditional and mature students at a post-1992 University. *Educational Studies* 29(2/3): 243-259. DOI:10.1080/03055690303278
- Pace, C.R. 1939. Factors influencing questionnaire returns from former university students. *Journal of Applied Psychology* 23(3): 388-397. <http://dx.doi.org/10.1037/h0063286>
- Pintrich, P.R., D.A. Smith, T. Garcia and W.J. McKeachie. 1991. A manual for the use of the motivated strategies for learning questionnaire (MLSQ). Ann Arbor: University of Michigan, National Center for Research to Improve Postsecondary Teaching and Learning.
- Rotter, J.B. 1966. Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs: General and Applied* 80(1): 1-28. <http://dx.doi.org/10.1037/h0092976>
- Radford, A.W., M. Cominole and P. Skomsvold. 2015. Demographic and enrollment characteristics of nontraditional undergraduates: 2011-12 [NCES Pub. No. 2015-025]. Washington, DC: National Center for Educational Statistics. <https://nces.ed.gov/>
- Ryan, R.M. and E.L. Deci. 2000. Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary Educational Psychology* 25(1): 54-67. DOI:10.1006/ceps.1999.1020
- Sansone, C. and J. Smith. 2000. The how of goal pursuit: Interest and self-regulation. *Psychological Inquiry* 11(4): 306-309. <http://www.jstor.org/stable/10.2307/1449627>
- Scott, L.M. and C.W. Lewis. 2012. Nontraditional college students: Assumptions perceptions, and directions for meaningful academic experience. *The International Journal of Interdisciplinary Social Sciences* 6(4).
- Senter, M.S. and R. Senter. 1998. A comparative study of traditional and nontraditional students' identities and needs. *NASPA Journal* 35(4): 270-280. <http://journals.naspa.org>
- Speck, M. 1996. Best practices in professional development for sustained education change. *ERS Spectrum* 14(2): 33-41. <http://eric.ed.gov/?id=EJ527481>
- Taniguchi, H. and G. Kaufman. 2005. Degree completion among nontraditional college students. *Social Science Quarterly* 86(4): 912-927.
- Thon, A.J. 1984. Responding to the non-academic needs of adult students. *NASPA Journal* 21(4): 28-34. DOI:10.1080/00220973.1984.11071889
- U.S. Department of Labor. Bureau of Labor Statistics. 2015. Unemployment rate demographics (USDLE Publication No. 16-0001). <http://www.bls.gov/news.release/pdf/empsit.pdf>
- Vangen, C. 1998. The new golden rule. *Buildings* 92(3): 68. <http://connection.ebscohost.com/c/articles/360367/new-golden-rule>
- Wigfield, A. and J.S. Eccles. 1992. The development of achievement task values: A theoretical analysis. *Developmental Review* 12(3): 265-310. DOI:10.1016/0273-2297(92)90011-P
- Wyatt, L.G. 2011. Nontraditional student engagement: Increasing adult student success and retention. *The Journal of Continuing Higher Education* 59(1): 10-20. DOI: 10.1080/07377363.2011.544977

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