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An Assessment of the Factors that Increase the Likeliness of Hispanic Students to Attend Higher Education in Northeast Tennessee

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An Assessment of the Factors that Increase the Likeliness of Hispanic Students to Attend Higher Education in Northeast Tennessee

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ABSTRACT

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From 2000 to 2014 the number of Hispanics grew 230%, representing an 8.6% of the national's youth (Tennessee Higher Education Commission, 2016). Although the population is growing, the educational attainment does not reflect this growth. This research tries to identify what factors influence individuals' decision to pursue higher education in rural Tennessee. Intrinsic (grit, hardiness, and motivation to lead) and extrinsic factors (Status in the U.S., caregivers' education, involvement in high school and others) were explored. Sixty-six complete responses were submitted to our online survey. Hypothesis testing with Pearson chi-square, difference of means (ANOVA and two sample t-test), and correlational analysis were conducted. It was concluded that regardless of the level of education, caregivers will motivate their students to pursue higher education. In addition, first generation students tend to showcase more grit than their counter parts and that the more education the individual has, the more they exemplify grit, hardiness, and motivation to lead.

DEDICATION

To my loving and supporting family. Thank you for your guidance, motivation and love. I could not be where I am without you all.

To God. I thank you for who I was, who I am, and who I will be.

To all my Hispanic counterparts.

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CHAPTER 1

INTRODUCTION

As of July 1, 2016, Hispanics were the largest ethnic or racial minority in the nation, constituting 17.8% of the total population (U.S. Census Bureau, 2016). From 2000 to 2014, the Hispanic population grew around 230% with the population of youth increasing from 2.8% to 8.6%. In some states, Hispanics have become close to the majority. Table 1 shows the percentage of Hispanics in different states as of 2015. One can see that Arizona, California, New Mexico, and Texas have the highest percentage of Hispanics, ranging from 30% to 48% (U.S. Census Bureau, 2015).

Table 1. Percentage of Hispanics in Different States

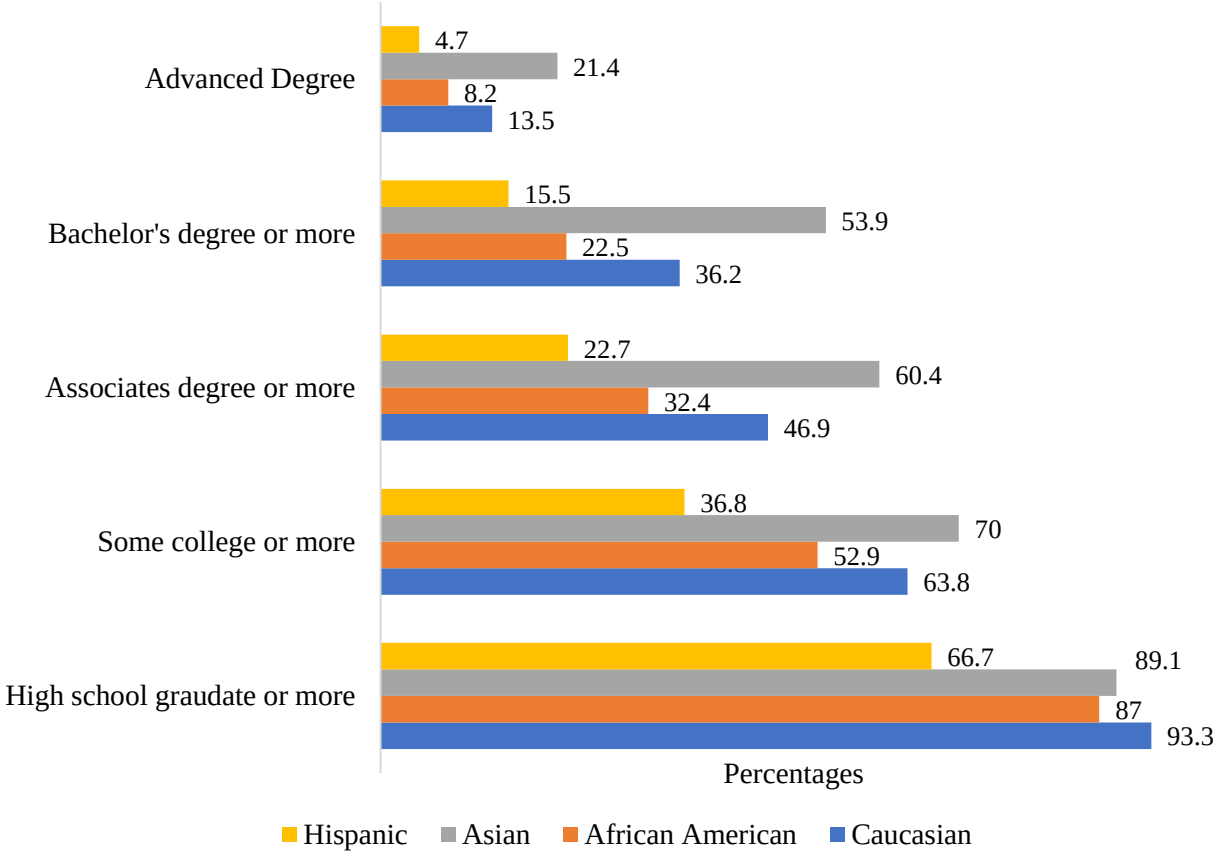
Region	Percentage
United States	17.60%
Arizona	**30.70%**
California	**38.80%**
Colorado	21.30%
Florida	24.50%
Illinois	16.90%
New Jersey	19.70%
New Mexico	**48.00%**
New York	18.80%
Tennessee	5.20%
Texas	**38.80%**

Source: Vintage 2015 Population Estimates

Hispanics and Education

With the above mentioned, one may think that Hispanics are graduating from college at the same rate in which they are growing, but that is not the case. According to the U.S. Census Bureau, in 2016, 67.1% of Hispanics ages 25 and older had at least a high school diploma or equivalent (U.S. Census Bureau, 2017b). Going further, although more Hispanics have been

pursuing higher education in recent years, Hispanics are still falling behind in their overall education, as seen in Figure 1 (Krogstad, 2016).



Source: U.S. Census Bureau, 2015 Current Population Survey

Figure 1. Educational attainment by race as of 2015

21.4% of the Asian population, ages 25-29, hold an advanced degree, followed by Caucasians with 13.5%, then African Americans with 8.2%, and finally Hispanics with 4.7%. The trend repeats for all levels of educational attainment except for high school graduate or more. For this group, one can see that Caucasians are the ones with the highest completion rate with 93.3% of

the population holding a high school degree, followed by Asians with 89.1%, then African Americans with 89.1%, and finally Hispanics with 66.7%. Hispanics are significantly behind their counterparts, hence the urgency to increase education for this group.

Hispanics in Tennessee

Although Hispanics live all over the U.S., they are predominant in the West and the South. As of 2014, states like California, Texas, Florida, New York, Illinois, Arizona, New Jersey, and Colorado had at least 1 million Hispanics. Between 2000 and 2004, states in the East saw an influx of Hispanics. For instance, the Hispanic population in Tennessee and South Carolina nearly tripled. "In 2014, Tennessee had 322,000 Latinos, up from 117,000 in 2000, and South Carolina had 258,000 Latinos in 2014, up from 95,000 in 2000" (Stepler & Lopez, 2016).

Despite the rapid growth of Hispanics in Tennessee, they only account for 5.2% of the population (U.S. Census Bureau, 2015). Even though Hispanics live in every county in Tennessee, the majority live in Nashville, Knoxville, Chattanooga, and other urban and suburban areas (Nagle, Gustafson, & Burd, 2012). Morristown in Hamblen County and Shelbyville in Bedford County are examples of small towns that are experiencing exponential Hispanic growth(Nagle et al., 2012)(Nagle et al., 2012)(Nagle et al., 2012)(Nagle et al., 2012)(Nagle et al., 2012)(Nagle et al., 2012)(Nagle et al., 2012)(Nagle et al., 2012)(Nagle et al., 2012)(Nagle et al., 2012)(Nagle et al., 2012). One of the reasons why Hispanics are moving to the South are due to high demand of low-skill jobs. Meat packaging, automotive repairs, second-hand auto tire shops, etc. are offering a more attractive alternative to seasonal jobs in agriculture. Finally, " Hispanics who are moving to rural areas are attracted by better schools, fewer street gangs, more affordable housing, and greater 'tranquility' in rural places" (Nagle et al., 2012, p. 13).

Education in Tennessee

The national trend projects a decline in the Caucasian population. The same trend is being observed in Tennessee, where it is expected for Caucasians to go from 74% to 61% between 2015 and 2045 (Tennessee Higher Education Commission, 2016). Not surprisingly, the percentage of Hispanics during this time will increase, outpacing other minorities. Figure 2 gives a graphic representation of White's decline (73.9% to 60.9%) and the increase of minority groups. African American or Blacks will see an increase of 1% (from 16.70% to 17.60%), Hispanics will see an increase of more than 7% (from 5.50% to 12.70%), and Other Non-Hispanics will see an increase of around 5% (from 3.90% to 8.80%) (Tennessee Higher

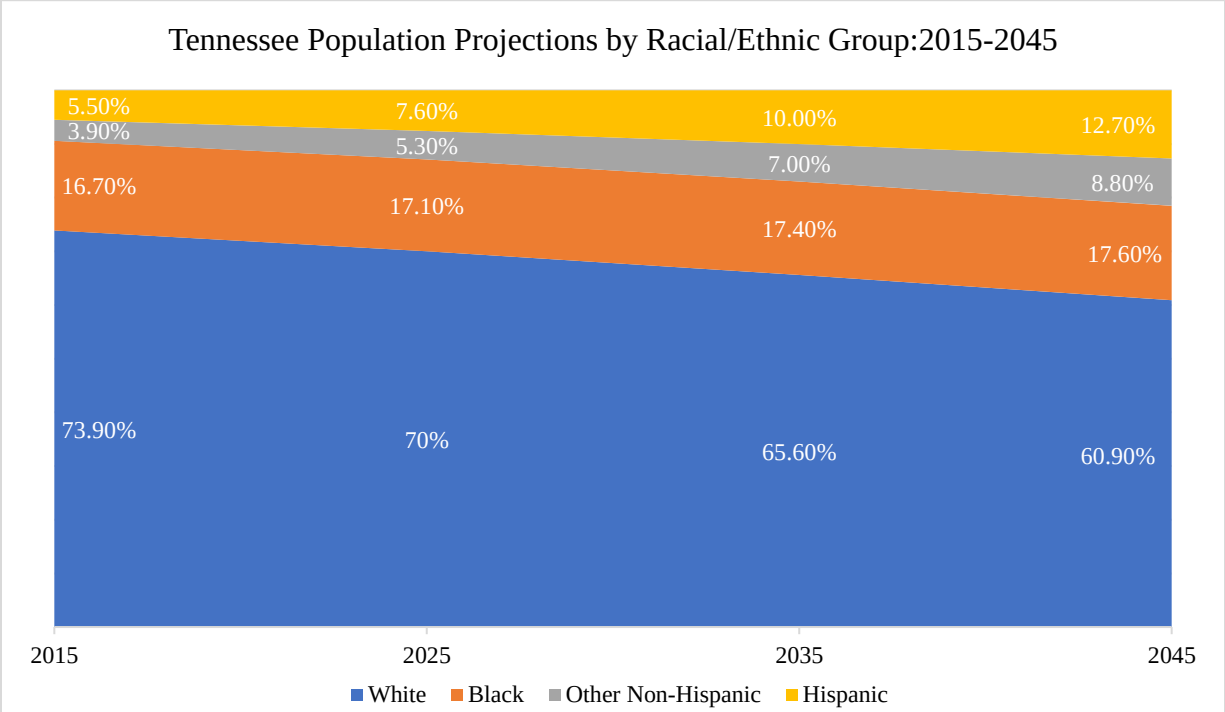


Figure 2. Tennessee population projections by racial/ethnic group: 2015-2045

Education Commission, 2016). Having explored this projection, I will now discuss the rural Northeast Tennessee dynamics more in depth.

Rural Northeast Tennessee: Educational trends

Rural Northeast Tennessee is comprised by 8 counties: Carter County, Greene County, Hancock, County, Hawkins County, Johnson County, Sullivan County, Unicoi County, and Washington County. As seen in Table 2, rural northeast Tennessee has around 506,892 people out of which 11,859 are of Hispanic origin. In other words, 2.34% of the population in the rural northeast Tennessee are Hispanic or of Hispanic origin (U.S. Census Bureau, 2016). However, as seen in Table 3, from the population of those 3 years old and over, 3.64% of the people enrolled in school are Hispanic while 1.69% of the people not enrolled are Hispanics. Although this sounds positive, when one analyzes the number of Hispanic per education level, one can see that only 38.58% of the Hispanics in rural northeast Tennessee are enrolled in school while 61.42% are not enrolled, but then again these numbers are based on a population that is 3 years and older (U.S. Census Bureau, 2017a). Some Hispanics may have done all their course work, but as mentioned before, as of 2014 only 15% of the Hispanic population in the United States had a four-year degree or higher, and one could assume there is a similar case in the rural northeast Tennessee. For these reasons, research is needed: to identify the factors that increase the probability that Hispanics in rural northeast Tennessee will receive a college degree.

Table 2. Annual Estimates of The Resident Population by Race and Hispanic Origin for Rural Northeast Tennessee Counties: April 1, 2010 To July 1, 2015

Counties	Total Population	Population of Hispanic Origin	Percentage
Carter County	56,486	988	1.75%
Greene County	68,580	1,921	2.80%
Hancock County	6,572	28	0.43%
Hawkins County	56,471	796	1.41%
Johnson County	17,830	326	1.83%
Sullivan County	156,791	2,755	1.76%
Unicoi County	17,860	790	4.42%
Washington County	126,302	4,255	3.37%
TOTAL	**506,892**	**11,859**	**2.34%**

Source: U.S. Census Bureau, Population Division

Table 3. School Enrollment by Race, Hispanic Origin, and Level of School for the Population 3 Years and Over in Rural Northeast Tennessee

Educational Level	Non-Hispanic	Hispanic	Total	Hispanic as % of the Population	Hispanics per educational level
Enrolled in school	107,109	4,041	111,150	**3.64%**	**38.58%**
Nursery school, preschool	5,220	234	5,454	4.29%	5.79%
Kindergarten	4,862	208	5,070	4.10%	5.15%
Grade 1 - 4	21,483	1,229	22,712	5.41%	30.41%
Grade 5 - 8	23,006	895	23,901	3.74%	22.15%
Grade 9 - 12	22,760	745	23,505	3.17%	18.44%
College, undergraduate years	24,823	607	25,430	2.39%	15.02%
Graduate or professional school	4,955	123	5,078	2.42%	3.04%
Not enrolled in school	374,377	6,434	380,811	**1.69%**	**61.42%**
Total	**481,486**	**10,475**	**491,961**	**2.13%**	

Rationale for Proposed Research

Out of 60% of the Hispanic students that aspired to graduate from college, only 61% applied to college and only 50% of those decided to attend college (Stern, 2009). There is a discrepancy between the number of students that aspire to go to college and the ones that end up going to college. The central purpose of this study is to identify the factors that may influence the decision of Hispanics to pursue higher education. Once we have this knowledge, we can focus on these variables to better prepare the Hispanic youth for higher education. The objectives of this research are:

- To identify factors associated with obtaining higher education in Hispanic populations living in rural northeast Tennessee.
- To identify intrinsic factors among Hispanic Students in this region
- To propose strategies and tools that will aid administrators, faculty, staff, policy makers, and other stakeholders in creating a more enriching and supportive academic environment to attract more Hispanic students

CHAPTER 2

LITERATURE REVIEW

Underrepresented students must overcome a series of barriers long before being able to enter college. Potential barriers to attaining a college education and diploma are academic and nonacademic spaces (Knaggs, Sondergeld, & Schardt, 2015). In other words, these barriers are present in the academic setting, at home, and within each person. Underrepresented students know that they must overcome not only present barriers, but also future ones. Knowing that they will have to overcome barriers in the future in order to attain higher education reduces their motivation to further their education (Abrego, 2006). Forseen barrriers is an obstacle that underrepresented students, immigrant children, and the children of imigrant families have to overcome. Overcoming this barrier, combined with the growing Hispanic population, has the potential to transform this country(Abrego, 2006; Trevino & DeFreitas, 2014).

Barriers in the Academic Setting

Stereotypes

As mentioned before, there are two types of barriers for underrepresented students- academic and nonacademic. In this section, I will discuss barriers in the academic setting. Within the academic setting, we will explore how stereotypes affect students. In fact, Syed, Azmitia, and Cooper (2011) mentioned that one of the most influential social psychological theories is the stereotype threat which occurs when academic inequalities take place. Given that groups hold different levels of power, individuals in the groups with less power can face prejudice and discrimination, lowering their self-esteem. As a result, underrepresented minority students become “aware of negative stereotypes about their achievement potential, leading them to question their abilities and disengage from school”(Syed, Azmitia, & Cooper, 2011, p. 444). This

means that when underrepresented minorities -due to their identity and lower status- have their capabilities questioned, they lose motivation in school. Although the concept of stereotype threat is challenged by some people, the data suggests that underrepresented students feel as if they do not belong in the classrooms due to direct or indirect stereotypes expressed by their classmates and teachers (Syed et al., 2011).

Tracking in Education

The claim that underrepresented minorities have to overcome stereotypes in school is supported by tracking. Some schools offer several academic levels or "tracks". Students are then placed in the academic level that "corresponds" to them (Kao & Thompson, 2003). This is questionable, given that minority groups such as African Americans, Hispanics, Native Americans, and low-income backgrounds are vastly overrepresented in lower tracks (Kao & Thompson, 2003; Syed et al., 2011). Interestingly, researchers noted that minority groups are significantly more likely than Caucasians to drop out of school (Kao & Thompson, 2003). Taking it further, the curriculum requirements of the lower tracks does not align with the coursework expected by colleges. Even worse is that "research indicates that students in lower tracks are not aware of this misalignment between graduation and eligibility requirements" (Syed et al., 2011, p. 457). This means that students may not realize the disparity until they start considering college, most likely in their senior year, when it is too late to fix it (Syed et al., 2011). Even with the above mentioned, tracking supporters believe that if students of less-perceived ability share the classroom with college-prep track students, the latter will be impacted negatively (Syed et al., 2011). Tracking increases the struggle of low-income students and minorities.

Non-Academic Barriers

Lack of Knowledge of the System and the college application process

Minority students sometimes face a lack of academic preparation due to tracking, but they also lack knowledge of the system. They are less familiar with college entrance requirements, scholarship and financial aid opportunities, as well as the application process (Knaggs et al., 2015). The same is true for the students' parents. In fact, it is said that for many minorities, especially Hispanics, filing the Free Application for Federal Student Aid (FAFSA) is one of the biggest barriers, even though this document is vital for financial aid (Stern, 2009)(Stern, 2009)(Stern, 2009)(Stern, 2009)(Stern, 2009)(Stern, 2009)(Stern, 2009)(Stern, 2009)(Stern, 2009)(Stern, 2009)(Stern, 2009)(Stern, 2009). For some Hispanics, the process could be so foreign that they do not even know how to search for colleges, choose a major, or choose between a two-year or four-year institution. This poses a great challenge because, when students get confused, they stop the application process, due to the fear of wasting their parents'. By not knowing the system, which involves passing certain classes to fulfill admissions requirements, and the financial aid and college application process, students get demotivated to apply to college due to fear (Stern, 2009).

Student Legal Status & Financial Constrains

Completing the FAFSA application is one of the biggest challenges for Hispanics, however, that is only an option if they are Permanent Residents or U.S. citizens. Around 50% of the Hispanic youth are immigrants or children of immigrants (Kao & Thompson, 2003). In urban districts like New York, it is speculated that 48% of the students in the schools are children of immigrants (Kao & Thompson, 2003). Some of them might be able to receive federal aid, but others might not fulfill the legal classification requirement and may be charged out-of-state

tuition or are classified as international students-paying an even higher amount (Abrego, 2006; Knaggs et al., 2015).

The situation that undocumented students must overcome is even more challenging. “In the United States, a substantial population of undocumented youth is growing up with legal access to public education through high school, but facing legal and economic barriers to higher education, even when attaining college admission” (Abrego, 2006, p. 212). Some of the students that seem to show more resilience and end up enrolling in college, enroll as part-time students to cope with the financial constraints (Knaggs et al., 2015). Oddly enough, attending college as a part-time student, or enrolling in a two-year college, can act as barrier to degree completion – even more if the student has a demanding work schedule or no career path (Knaggs et al., 2015). However, student minorities from lower socioeconomic backgrounds view education as the path that will improve the overall quality of their life as well as not having as difficult time as their parents (Dennis, Phinney, & Chuateco, 2005). Even though students see education as a viable way to success, they still face financial constraints when pursuing college. For this reason, they enroll as part-time students which, at the end of the day, may decrease their probability of success. Since the academic reality for undocumented students is unique, research of both their stressors and academic strengths is needed (O’Neal et al., 2016).

External Factors of Motivation

Social Systems

Although there are several ways to classify the legal status of Hispanics in the United States, for the most part, they all share some experiences, connections, and support groups. Church gatherings, specialized afterschool programs, summer camps, teachers, peers, and family members provide social support that affects identity development (Syed et al., 2011). The

examples mentioned above can act as “identity agents” or “cultural brokers” that can shape the identity of youth in a group and can motivate ethnic minority youth. However, when they are not present they represent a barrier to success (Syed et al., 2011). Social support is an important contributor to the success of underrepresented ethnic minorities.

Thus far, we have explored some of the factors that shape identity, but now we will focus on factors that contribute to academic success. Mentors, teachers, peers, academic programs, and families, have been recognized as more influential since they can provide social and instrumental support (Syed et al., 2011). Exploring academic programs more in-depth, one can say that these programs provide academic support, test preparation, counseling, campus exposure, and parental involvement (Knaggs et al., 2015). In a sense, these programs help underrepresented students to overcome barriers, graduate from high school, and get admitted to college by facilitating knowledge and tools that were not available for them (Knaggs et al., 2015). However, once students got to college, peers and friends carried more significance since sharing interests with peers and friends allowed them to feel like they belonged at college (Syed et al., 2011). Peers and friends facilitate social integration by exploring and inviting each other to campus events and organizations (Syed et al., 2011). Although academic programs, peers, and friends facilitate the process for underrepresented ethnic minority students, Hispanics have unique home environments and family relationships that influence their academic achievement.

Family/Parents System

Hispanics have a family-oriented life. In fact, when Hispanic students have strong family relationships, positive home environment and persistence, they have higher levels of intrinsic motivation, which in turn increases their academic achievement (Próspero, Russell, & Vohra-Gupta, 2012). As previously discussed, Hispanic parents may be unfamiliar with the American

educational system. Since Hispanic student rely on their family to a higher degree, this creates barriers for first-generation students or migrant students that seek guidance when applying to college (McCallister, Evans, & Illich, 2010). Regardless of the level of education, Hispanic parents have strong aspirations for their offspring (Stern, 2009; Syed et al., 2011). These aspirations and support are strong and positive predictors of the child's educational attainment and self-efficacy (Fan, Williams, & Wolters, 2012; McCallister et al., 2010). Hispanics students rely on their family as a source of guidance, but when parents have a disadvantaged background they serve as an inspiration and motivation for their children (Syed et al., 2011). In addition, parents usually comment on the limited opportunities and life options from not having an education, motivating their children to pursue a better life through education (Syed et al., 2011). In the cases that have been presented, one can see how support systems like peers, friends, academic programs, and parents motivate Hispanic students to attain an education, but I will now explore motivational factors that come from within each person.

Intrinsic Exploration

While external factors greatly affect an individual's choice to pursue higher education, intrinsic factors also have a significant impact. As Dennis and others put it (2005), the motivation to pursue higher education is influenced by collective and individual motivations(Dennis et al., 2005). Collectivist motivation is related to the external factors discussed previously. For example: a student attending college to meet their family's expectation. Individual motivations are within oneself and can be described as personal interests, career goals, and willingness to learn, amongst others (Dennis et al., 2005).

Intrinsic Motivation

Individuals' motivation or intrinsic motivation have been studied as a factor that influences academic achievement in several ethnically diverse student populations (Trevino & DeFreitas, 2014). In fact, intrinsic motivation can be defined as the willingness of an individuals to engage in and complete academic tasks to accomplish their goals or happiness rather than avoiding punishment or seeking (Fan et al., 2012). Students with high intrinsic motivation show more engagement, endurance, and accomplishments than their counterparts with lower intrinsic motivation (Fan et al., 2012). Supported by research that demonstrates a positive relationship between high levels of intrinsic motivation and academic success, hence intrinsic motivation influences achievement and persistence (Trevino & DeFreitas, 2014).

Hardiness

While minority students face numerous barriers, some can endure difficult conditions and continue to move forward. This ability is known as hardiness. "Hardiness theory submits that people who feel committed, in control, and positively challenged by life circumstances have the tendency to perceive events or circumstances as less stressful, seeing them as manageable rather than overwhelming" (Sheard & Golby, 2007, p. 190). Hardiness enables students to turn stresses into advantages, in which case creativity and fulfilment improve. It is even possible that physical and mental health improve (Maddi, 2006). As students exhibit hardy attitudes, they are able to cope with stressful situations (meetings, deadlines, project completions, exams) and face them rather than deny them, turning stressful situation into opportunities. (Sheard & Golby, 2007). In fact, research has shown that hardiness is a better predictor of students' retention when compared to Scholastic Aptitude Test (SAT) scores and class rank (Lifton, Seay, & Bushko, 2000). Because minority students, especially of Hispanic background, face financial limitations, legal issues, and lack of guidance, strong hardy attitudes may be found in this population.

Grit

Individuals might show hardiness, which would allow them to bear tough circumstances, but that does not guarantee long-term commitment to a goal. Grit is defined as "perseverance and passion for long-term goals. Grit entails working strenuously toward challenges, maintaining effort and interest over years despite failure, adversity, and plateaus in progress" (Duckworth, Peterson, Matthews, & Kelly, 2007, pp. 1087–1088). Grit would stimulate students to overcome stereotypes, challenges, and to make their loved ones proud (O'Neal et al., 2016). It has been proven that grit is a predictor of academic success (Duckworth et al., 2007), general sense of well-being and a life filled with meaning (Lee, 2017). It has been confirmed that Hispanic students have demonstrated resilience by persisting and showcasing their efforts towards academic goals they set despite the barriers they faced (Trevino & DeFreitas, 2014).

Motivation to Lead

As mentioned earlier, some Hispanic students and parents do not know how to navigate the educational system in the United States. This causes barriers for Hispanic students that might get intimidated by FAFSA and the college application form. In some cases, academic programs help students overcome these barriers. As students may be the first in their families to obtain a high school or college degree, I wonder if the student developed motivation to lead as an example to others who may follow. "Motivation to Lead may be defined as an individual-differences construct that affects a leader's or leader-to-be's decisions to assume leadership training, roles, and responsibilities and that affect his or her intensity of effort at leading and persistence as a leader" (K. Y. Chan & Drasgow, 2001, p. 482). I will now explore if motivation to lead would change or shape the individuals' actions and choices to obtain academic success.

CHAPTER 3

METHODOLOGY

Research Method & Design

The purpose of this non-experimental correlational and cross-sectional study was to determine if and which social determinants (demographics, caregiver's education, status in the US, schooling done in the US, etc.) influenced individuals' decision to attend to higher education. To make that determination, this study tested the association and influence of social determinants and intrinsic factors like hardiness, grit, and motivation to lead. If there is an association or influence, I could offer insight to programs that are in place to help Hispanic students, schools, and policy makers.

A correlational and cross-sectional study method was used in this study to explore the differences in the numerical measures of hardiness, grit, and motivation to lead, given the different background of the participants. A correlational research does not manipulate variables, it mainly studies the natural variation within the population. A correlational research is appropriate because it will determine the direction and strength of the association between variables (Walker, 1989). In addition, cross-sectional study was needed because the research purpose is to describe our population of interest and its subgroups. A cross-sectional study is appropriate to see the group differences within the population, and the survey responses offer insight of a specific point in time (Levin, 2006). A correlational cross-sectional study allows us to exhaustively analyze the data.

Procedure

The literature was reviewed, and external and internal variables were of interest. Some of the external variables were caregiver's level of education, caregiver's information on higher education, status in the U.S., and length of stay in the U.S., amongst others. On the other hand, the internal variables were grit, hardiness and motivation to lead. The survey was created in REDCap, an online software program. A survey was needed to collect objective information from individuals as well to collect self-report data from the participants. Educational institutions and non-for-profit organizations were chosen and approached for this study. A letter documenting their support was petitioned and the Institutional Review Board (IRB) was approached with the pertinent information. Approval was given to the study.

The online survey was available through ETSU REDCap. The educational institutions and organizations were asked to send an email out to their students or members. Some of the organizations did not comply even though a support letter was given. The response rate was low as of the 5th month of data collection. It was decided that given the sensitivity of the population, snowball sampling and cluster sampling were needed to increase the response rate. In cluster sampling, researchers draw groups of participants instead of individuals (Patten, 2012). The cluster samples for current students chosen at random were East Tennessee State University and Tennessee College of Applied Technologies. To gather high school students, high school graduates, college graduates, and professionals, snowball sampling was used. "Snowball sampling can be useful when attempting to locate participants who are hard to find"(Patten, 2012, p. 51). After finding one participant that meets the research criteria, the participant is asked to refer the researchers to someone else (Patten, 2012). However, for this study, researchers found one participant that fits their population of interest and this participant was

asked to refer the survey to an individual with similar characteristics, given that participants should not be identifiable.

Population & Sample

Setting and Participants

Given the differences in services and support for Hispanics in rural and urban areas, this study is focused on rural Tennessee. Specifically, northeast Tennessee area. This region is comprised of eight counties of interest: Carter County, Greene County, Hancock County, Hawkins County, Johnson County, Sullivan County, Unicoi County, and Washington County. Cities like Knoxville and Nashville are known for having programs in place to motivate Hispanics to achieve in higher education, however the Northeast area does not have such programs in place.

Although the Northeast Tennessee region does not have big cities, numerous Hispanics call this area their home. To participate, the individuals had to be Hispanics at least 14 years old. The hope was that this criterion will include participants in high school, high school graduates, current college students, college graduates, and professionals. The main targets were current college students, college graduates, and professionals because these individuals most likely have the variables of our interest -the ones that allowed them to attend to college and/or graduate.

The sample size was chosen by performing a sample size for desired margin of error. The process is as follows:

$$n = \left(\frac{Z^*}{m}\right)^2 p^*(1 - p^*)$$

Where Z^* is the standard normal critical value for the level of confidence. 95% confidence was chosen at a z-score of 1.96. The guessed sample proportion is conservative at 0.5 and the margin of error of 0.05.

$$n = \left(\frac{1.96}{0.05}\right)^2 * 0.50(1 - 0.50) = 384$$

The recommended sample size is 384 participants. It has been acknowledged that this target sample size is high and coming from a sensitive population in a rural area it might be difficult to achieve.

Ethical Consideration

As previously mentioned, this quantitative study was approved by the IRB. The procedures for the protection of human participants were considered throughout the study--from planning to analyzing data. The data was collected online through ETSU REDCap, a software program that has a server in East Tennessee State University. This would decrease the probabilities of the data being used by a third party and would increase the security of the data set. No identifier was requested throughout the survey which allowed for the survey to remain anonymous and confidential. The survey was made available online so that the participants are free to do it in a time that is convenient to them and in a place they feel safe. By doing so, they do not self-identify by going to a specific room to be surveyed. Going further, the study presented minimal risk to the participants who were not exposed to physical nor psychological harm. Participants were informed through the consent/assent form that their participation is voluntary and that at any point they can stop taking the survey.

Instruments

Data was collected for several variables. Some of these variables were demographic, others were inspired through the literature review, and three variables were gathered through established instruments. The instruments in place measured grit, hardiness, and motivation to lead.

Grit

Grit is known as the perseverance and commitment towards long-term goals. The Grit Scale by Duckworth et al. was chosen to measure grit (question 21 in the appendix). The Grit Scale comprises 12 items using a 5-point scale where 1 = not like me at all and 5 = very much like me. This 12-item scale measures both the Perseverance of Effort and Consistency of Interests (6 items for each factor). The internal consistency coefficient (Cronbach alpha) for each factor was α=0.84 for Consistency of Interests, and α=0.78 for Perseverance of Effort. Overall the internal consistency of the scale was α=0.85 (Duckworth et al., 2007), while, for this research, the internal consistency was of 0.718.

Hardiness

A person with hardiness has a "high sense of life and work commitment, greater sense of control, and are more open to change and challenges in life. They tend to interpret stressful and painful experiences as a normal part of life" (Bartone, 1995). For this reason, the Dispositional Resilience Scale (DRS; Bartone, 1989) was used to measure personality hardiness (question 19 in the appendix). DRS is a 30-item self-report measure that assesses the hardiness components: commitment, control, and challenge. The response options for the 30-item scale are "not at all true", "a little true", "quite true", and "completely true". The internal consistency coefficients (Cronbach-alpha) for the hardiness components (control, commitment, challenge) were .66, 0.82,

and 0.62 respectively, however for the scale as a whole, the Cronbach's alpha = 0.82 (Bartone, Ursano, Wright, & Ingraham, 1989). Likewise, the internal consistency of the overall measure in this research was of 0.745.

Motivation to Lead

"Motivation to lead is defined as individuals' willingness to engage in leadership training activities and assume leadership roles"(Guillén, Mayo, & Korotov, 2015, p. 802). The Motivation to Lead scale (MTL), has 27items and is rated in a five-point Likert scale, from strongly disagree to strongly agree (question 20 in the appendix). This scale uses three subscales: affective-identity MTL, social normative MTL, and non-calculative MTL (9 items each). Where affective-identity measures the extent to which individuals envision themselves as leaders, social normative measures the extent to which an individual seeks leadership due to the responsibility they feel towards the group, and non-calculative measures the extent to which the individual avoids cost-benefit analysis of personal benefits when leading (K.-Y. Chan & Drasgow, 2001). In this research, the internal consistency of the measure was of 0.878.

Data Analysis

The data file with coded answers of the survey was downloaded through REDCap. In some cases, categories were combined to ease the analysis. Hypothesis testing for association was performed by using a chi-square test. Difference of group means was analyzed with one-way ANOVA and two sample t-test. A correlation test was used to determine the association between the numerical variables. All the analysis, including the demographics, were carried out in IBM SPSS 25.

CHAPTER 4

RESULTS AND DISCUSSION

The purpose of this quantitative study using correlational and cross-sectional design was to analyze and evaluate some of the extrinsic and intrinsic variables that may influence the individual's decision to attend higher education. Since most of our variables are categorical or ordinal, I used Chi-square to find out the association between paired variables. On the other hand, after computing the survey responses for Grit, Hardiness, and Motivation to Lead, I obtained an output in a scale. With this output I run a comparison of means against the different categorical variables. Finally, I did a correlation analysis with the intrinsic variables (Grit, Hardiness, and Motivation to Lead).

Demographics

Out of the 84 responses only 66 were complete. Demographics and details can be seen in Table 4. As seen in Table 5, there were 47 females that completed the survey at a mean age of 22.85 years old, the minimum, median, and maximum age were 15, 20, and 50 respectively. Similarly, there were 19 males that filled out the survey for which the mean age was 21.95 years old and the minimum, median, and maximum were 16, 20, and 35 respectively.

Table 4. Demographics and Details of the Sample

	Freq.	Percent
Gender		
Female	47	71%
Male	19	29%
Age		
18 and younger	22	33%
19 - 25 years old	30	46%
26 and older	14	21%
Native Language		
English	20	30%
Spanish	44	67%
Other	2	3%
Status in US		
U.S. Citizen/Perm. Res.	54	82%
DACA	7	11%
International Student	3	5%
Other	2	3%
Length of stay in the US		
Less than 15 years	14	21%
More than 15 years	10	15%
All my life	42	64%

	Freq.	Percent
Schooling done in the US		
Preschool and higher	27	41%
Elementary school and higher	14	21%
Middle School and higher	2	3%
Just high school	19	29%
None	4	6%
Hispanic Mentors during high school		
Yes	15	23%
No	51	77%
Afterschool programs during high school		
Yes	19	29%
No	47	71%
Involved in high school		
Yes	62	94%
No	4	6%
Highest level of education		
High school or less	16	24%
Some college/ Associate/Technical	34	52%
Bachelor's degree	6	9%
Higher than bachelor	10	15%

Table 5. Age Distribution by Gender

	Age								
Gender	**N**	**Mean**	**SE Mean**	**St Dev**	**Min**	**Q1**	**Median**	**Q3**	**Max**
Female	47	22.85	1.12	7.67	15	18	20	24	50
Male	19	21.95	1.26	5.48	16	17	20	26	35

I hypothesized that the education of the caregiver (the person or people that took care of the subject when they were less than 18 years old) would have an association with the education of the individual. In Figure 3 and Table 6 one can see the level of education of the caregiver in

detail. From the caregivers, 45% were Fathers, 48% Mothers, and 7% Others. Others implied adoptive parents, grandmothers, and aunts. In Table 6 One can also see that 8% of the caregivers have no schooling, 38% have less than a high school degree, 24% have a high school diploma or equivalent, 7% have some college but no diploma, 2% have an associate's degree, 2% have a technical degree, 8% have a bachelor's degree, 7 % have a master's degree, and 4% have a doctoral degree. To conduct the analysis, I simplified the education categories to "high school or less" and "some college or higher". I also recoded father, mother, and other by genders (female and male).

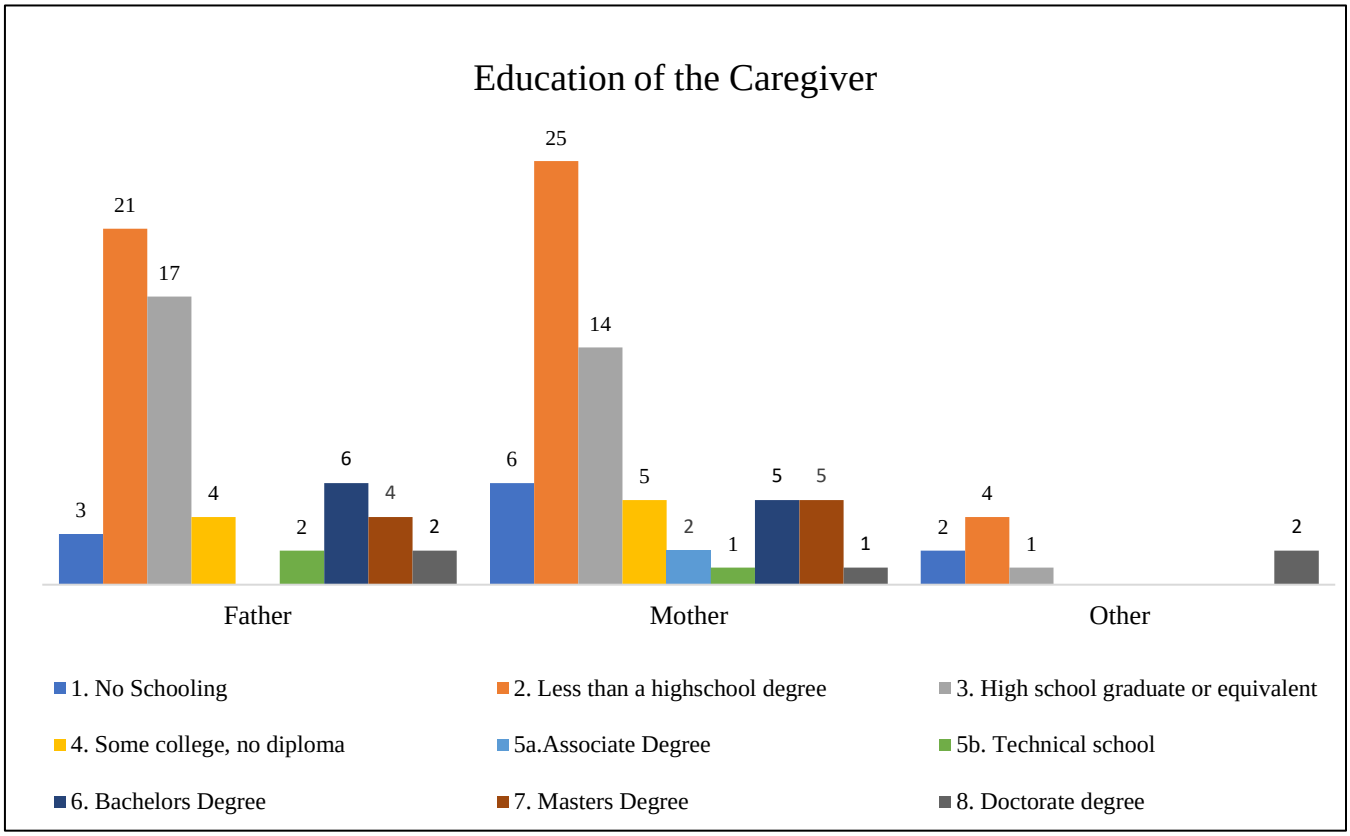


Figure 3. Education level of the caregiver

Table 6. Education Level of the Caregivers

	Count				Percentage			
	Father	**Mother**	**Other**	**Total**	**Father**	**Mother**	**Other**	**Total**
No Schooling	3	6	2	**11**	2%	5%	2%	**8%**
Less than a high school degree	21	25	4	**50**	16%	19%	3%	**38%**
High school graduate or equivalent	17	14	1	**32**	13%	11%	1%	**24%**
Some college, no diploma	4	5	-	**9**	3%	4%	-	**7%**
Associate Degree	-	2	-	**2**	-	2%	-	**2%**
Technical school	2	1	-	**3**	2%	1%	-	**2%**
Bachelor's Degree	6	5	-	**11**	5%	4%	-	**8%**
Master's Degree	4	5	-	**9**	3%	4%	-	**7%**
Doctorate degree	2	1	2	**5**	2%	1%	2%	**4%**
Total	**59**	**64**	**9**	**132**	**45%**	**48%**	**7%**	**100%**

Moving forward, I looked at the education of the individual and their status in the United States. As seen in Table 4, 82% are U.S. Citizens or Permanent Residents, 11% are DACA recipients, 5% are International Students, and 3% are Other. Figure 4 shows a bar chart of the education the individuals had in the U.S. and their status in the U.S. whereas Table 7 shows the same information but with percentages. U.S. Permanent Resident/Citizens are represented in all the categories but the ones that have the most are Preschool and higher with 35% and Just high school with 26%. Only 5% of the DACA students completed Preschool and higher in the U.S. and 3% completed Elementary school and higher. Going farther I wanted to see their highest education level by their status in the U.S. as seen in Figure 5 and Table 8. One can see that 44% of the U.S. Permanent Resident/Citizen category have some kind of college, are currently in college, or have an associates or technical degree. 13 under U.S. Permanent Resident/Citizen have a bachelor's degree or higher. One can see that 3 DACA students have a high school degree or less, and 4 have some kind of college, are currently in college, or have an associates or

technical degree. However, none have a bachelor's degree. Since DACA students are not eligible for financial aid, it is possible that the cost of obtaining a bachelor's degree deters them from getting one. The same might be true for the individuals that identified as Other in their citizenship status.

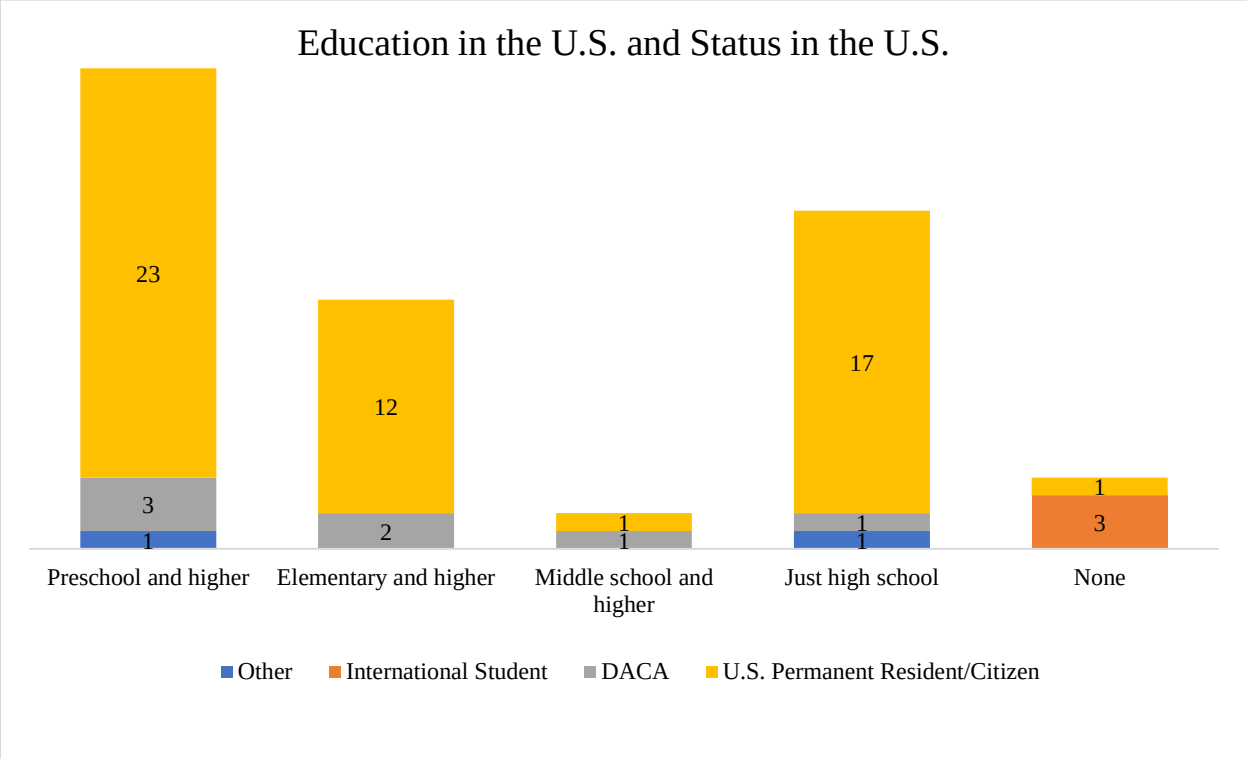


Figure 4. Education and status in the United States

Table 7. Education in the United States by Legal Status

	U.S. Permanent Resident/Citizen	DACA	International Student	Other	Total
Preschool and higher	35%	5%		2%	41%
Elementary and higher	18%	3%			21%
Middle school and higher	2%	2%			3%
Just high school	26%	2%		2%	29%
None	2%		5%		6%

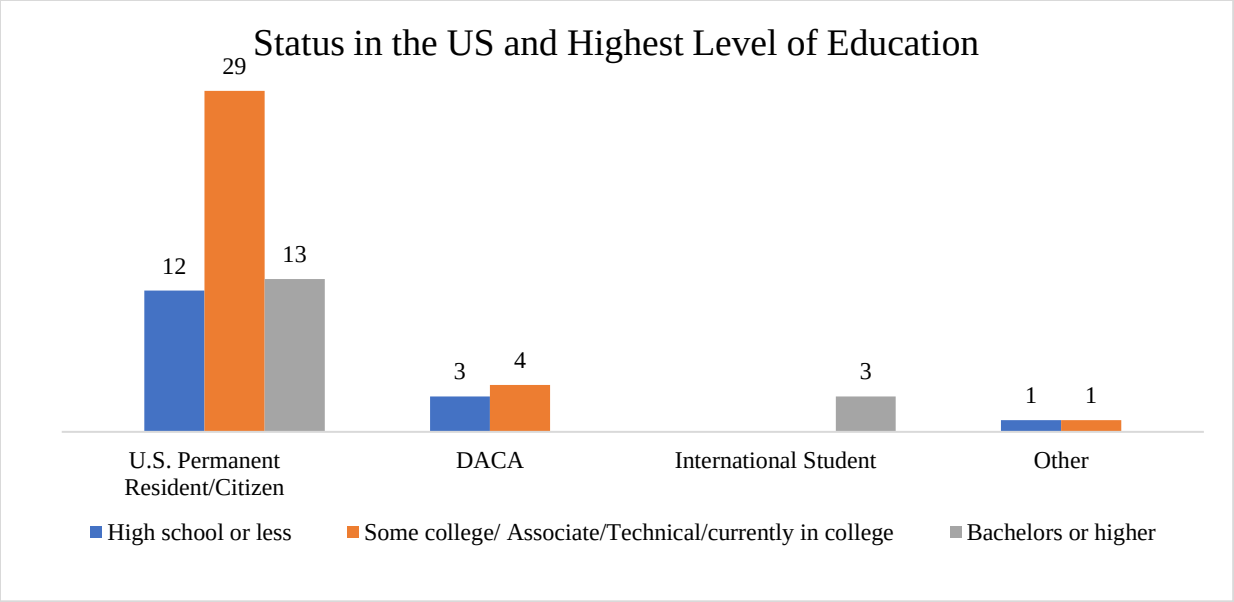


Figure 5. Highest level of education by status in the United States

Table 8. Highest Level of Education by Status in the United States

	U.S. Permanent Resident/Citizen	DACA	International Student	Other	Total
High school or less	18%	5%	0%	2%	24%
Some college/ Associate/Technical/ currently in college	44%	6%	0%	2%	52%
Bachelors or higher	20%	0%	5%	0%	24%

Chi-Square Analysis

The study started with some hypotheses, but as I did the demographics study I added more even more hypotheses. I decided to use a chi-square test for a two-way table because it tests the null hypothesis that there is no relationship between the variable, whereas the alternative hypothesis says there is an association (however it does not say what kind of association). I chose a 95% level of confidence which means p-value to α=0.05. The hypotheses are below:

Null Hypothesis (H_o): There is no association between the variables

H_1: There is an association between the education level of the caregiver and the frequency in which they encouraged their student to pursue a higher education.

H_2: There is an association between the education level of the caregiver and the highest level of education of the subject.

H_3: There is an association between the Caregivers' information on higher education and their level of education.

H_4: There is an association between the Caregivers' information on higher education and the level of education of the subject.

H_5: There is an association between having Hispanic mentors during high school and the level of education of the subject.

H_6: There is an association between involvement during high school and the level of education of the subject.

H_7: There is an association between involvement in afterschool programs during high school and the level of education of the subject.

H_8: There is an association between the schooling done in the U.S. and the level of education of the subject.

H_9: There is an association between being a first-generation student and the level of education of the subject.

H_{10}: There is an association between being first generation student and having Hispanic mentors during high school.

H_{11}: There is an association between being first generation student and involvement in afterschool programs during high school.

H_{12}: There is an association between being first generation student and involvement during high school.

H_{13}: There is an association between a native language student and involvement during high school.

H_{14}: There is an association between gender of the student and involvement during high school.

H_{15}: There is an association between status in the U.S. and involvement during high school.

H_{16}: There is an association frequency of encouragement to attend to higher education and involvement during high school.

Since our sample included individuals that were currently in high school and high school graduates, I carried out all the Pearson chi-square analyses with and without them. Table 9 and Table 10 show the degrees of freedom and p-values for the analysis, as well as the conclusion. The highlighted values are the ones that show significance. In most cases, the decision is the same in both samples, however it differs in H_7, H_{13}, and H_{14}.

Table 9. Pearson Chi-Square analysis with the whole sample. P-value tested against α=0.05.

	df	*p-value*	Decision	Conclusion
H_1:	1	0.19	Fail to reject Ho.	There is no association between the education level of the caregiver and the frequency in which they encouraged their student to pursue a higher education.
H_2:	2	0.118	Fail to reject Ho.	There is no association between the education level of the caregiver and the highest level of education of the subject.
H_3:	2	0.001	Fail reject Ho.	There is an association between the caregivers' information on higher education and their level of education.
H_4:	4	0.209	Fail to reject Ho.	There is no association between the caregivers' information on higher education and the level of education of the subject.
H_5:	2	0.903	Fail to reject Ho.	There is no association between having Hispanic mentors during high school and the level of education of the subject.
H_6:	2	0.417	Fail to reject Ho.	There is no association between involvement during high school and their level of education.
H_7:	2	0.072	Fail to reject Ho.	There is no association between involvement in afterschool programs during high school and their level of education.
H_8:	8	0.046	Reject Ho.	There is an association between the schooling done in the U.S. and their level of education.
H_9:	1	0.71	Fail to reject Ho.	There is no association between being first generation student and their level of education.
H_{10}:	1	0.012	Reject Ho.	There is an association between being first generation student and having Hispanic mentors during high school.
H_{11}:	1	0.148	Fail to reject Ho.	There is no association between being first generation student and involvement in afterschool programs during high school.
H_{12}:	1	0.239	Fail to reject Ho.	There is no association between being first generation student and involvement during high school.
H_{13}:	2	0.017	Reject Ho.	There is an association between a native language student and involvement during high school.
H_{14}:	1	0.035	Reject Ho.	There is an association between gender of the student and involvement during high school.
H_{15}:	3	0.814	Fail to reject Ho.	There is no association between status in the U.S. and involvement during high school.
H_{16}	1	0.494	Fail to reject Ho.	There is no association frequency of encouragement to attend to higher education and involvement during high school.

Table 10. Pearson Chi-Square analysis with individuals with a bachelor's degree or higher. P-value tested against α=0.05.

	df	*p-value*	*Decision*	*Conclusion*
H_1:	1	0.151	Fail to reject Ho.	There is no association between the education level of the caregiver and the encouragement to pursue a higher education.
H_2:	1	0.648	Fail to reject Ho.	There is no association between the education level of the caregiver and the highest level of education of the subject.
H_3:	2	0.000	Reject Ho.	There is an association between the Caregivers' information on higher education and their level of education.
H_4:	2	0.401	Fail to reject Ho.	There is no association between the Caregivers' information on higher education and the level of education of the subject.
H_5:	1	0.704	Fail to reject Ho.	There is no association between having Hispanic mentors during high school and the level of education of the subject.
H_6:	1	0.578	Fail to reject Ho.	There is no association between involvement during high school and the level of education of the subject.
H_7:	1	0.029	Reject Ho.	There is an association between involvement in afterschool programs during high school and the level of education of the subject.
H_8:	4	0.039	Reject Ho.	There is an association between the schooling done in the U.S. and the level of education of the subject.
H_9:	1	0.71	Fail to reject Ho	There is no association between being first generation student and the level of education of the subject.
H_{10}:	1	0.012	Reject Ho.	There is an association between being first generation student and having Hispanic mentors during high school.
H_{11}:	1	0.148	Fail to reject Ho.	There is no association between being first generation student and involvement in afterschool programs during high school.
H_{12}:	1	0.239	Fail to reject Ho.	There is no association between being first generation student and involvement during high school.
H_{13}:	2	0.499	Fail to reject Ho.	There is no association between native language student and involvement during high school.
H_{14}:	1	0.479	Fail to reject Ho.	There is no association between gender of the student and involvement during high school.
H_{15}:	3	0.941	Fail to reject Ho.	There is no association between status in the U.S. and involvement during high school.
H_{16}	1	0.181	Fail to reject Ho.	There is no association frequency of encouragement to attend to higher education and involvement during high school.

Chi-Square Analysis Discussion

By observing the tables, one can see that regardless of the caregiver's education level, the caregiver would encourage their student to pursue higher education (H_1). I had hypothesized that the education level of the caregiver would have an association with the education of the subject (H_2), however that is not the case. Further, one can see that there is an association between the information on higher education that the caregiver had and their education level (H_3). Hence the importance of advocate and educational programs that educate the parents on the options for their children. Conversely, H_4 suggests that there is no association between the caregiver's information on higher education and the level of education of the subject.

Despite the literature mentioning that mentorship would increase the likeliness of pursuing higher education that was not the case with our sample (H_5). Similarly, the literature mentioned that if students are involved in school (H_6) and afterschool programs (H_7), there is higher likeliness to attend higher education, but that was not the case with our sample that included high school students (Table 9). When looking only at individuals with a bachelor's degree or higher, there is a significant association between afterschool school programs and their highest level of education (H_7). I had hypothesized that the more exposed the individual was to education in the U.S., the more likely they are to pursue higher education. Our analysis points out that there is an association between schooling done in the U.S. and the level of education of the subject (H8).

Given the uniqueness of the group, I was intrigued to see the dynamic of first generation students. One can see that that there is no association between being a first-generation student and their level of education (H_9). Yet, there is an association between being a first-generation student and having Hispanic mentors during high school (H_{10}). This makes sense given that they

needed more guidance than their counterparts that were not first-generation students. Additionally, there is no association between first generation students and involvement in afterschool programs (H_{11}) nor involved in high school clubs (H_{12}).

When looking at the Pearson chi-square of the whole sample one can see that there is an association between native language (H_{13}) and gender (H_{14}) and involvement during high school, but the analysis with bachelor's degree and higher is not in agreement with these results. Finally, there is not an association between the individual status in the U.S. and involvement during high school (H_{15}) nor between the frequency in which the individual was encouraged to pursue higher education and their involvement during high school (H_{16}). I was expecting these variables to be associated.

Comparison of Means

In addition, the Chi-square analysis I decided to conduct a comparison of means. I wanted to see if there were statistically significant variations in the group means when having Grit, Hardiness, and Motivation to Lead as independent variables, and our categorical data as the dependent variables. According to the number of groups, I executed either a one-way ANOVA (Table 11) or an independent T-test (Table 12). The highlighted boxes are the ones that show that there is significant difference in the group means.

Table 11. One-way ANOVA. P-value measured against α=0.05

	Independent Variables		
Dependent Variables	**Grit**	**Hardiness**	**Motivation to Lead**
Schooling done in the U.S.	F(4,61)=2.350, p=0.064	F(4,61)=2.098, p=0.092	F(4,61)=1.909, p=0.12
Status in the U.S.	F(3,62)=1.766, p=0.163	F(3,62)=3.821, p=0.014	F(3,62)=1.992, p=0.124
Usage of English at home	F(2,63)=0.651, p=0.525	F(2,63)=1.461, p=0.240	F(2,63)=4.909, p=0.010
Caregiver information of higher education	F(2,63)=1.444, p=0.244	F(2,63)=0.031, p=0.97	F(2,63)=0.293, p=0.747
Level of education of the subject	F(2,63)=4.302, p=0.018	F(2,63)=8.229, p=0.001	F(2,63)=5.692, p=0.005
Length of stay in the U.S.	F(2,63)=1.695, p=0.192	F(2,63)=0.249, p=0.781	F(2,63)=0.120, p=0.877
Native language	F(2,63)=0.097, p=0.908	F(2,63)=1.419, p=0.250	F(2,63)=1.918, p=0.155

Table 12. T-test. P-value measured against α=0.05

	Independent Variable		
Dependent Variables	**Grit**	**Hardiness**	**Motivation to lead**
Involvement in high school	t(64)=0.128, p=0.899	t(64)= 0.413, p=0.681	t(64)=2.244, p=0.028
Afterschool programs during high school	t(64)=0.349, p=0.728	t(64)= -3.788, p=0.000	t(64)= -1.884, p=0.064
Frequency of encouragement for higher education	t(64)= 0.234, p=0.816	t(64)= -0.056, p=0.955	t(64)= -0.696, p=0.489
Hispanic mentors during high school	t(64)= -0.629, p=0.532	t(64)=1.614, p=0.112	t(64)=-0.038, p=0.970
First Generation	t(48)=2.161, p=0.036	t(48)= -0.294, p=0.770	t(64)=0.377, p=0.708
Gender	t(64)=0.349, p=0.728	t(64)=0.209, p=0.835	t(64)= -0.568, p=0.572
Involvement in college	t(48)=0.006, p=0.995	t(48)=0.452, p=0.654	t(48)= 0.817, p=0.418

One-Way ANOVA Discussion

In this section I will discuss the SPSS output for the variables that seem to have a significant difference in group means. Given that our sample has small group sizes with unequal numbers within the group, the homogeneity of variance assumption was checked using a Levene test. In all the cases highlighted, the homogeneity of variance has been met. Table 11 shows that there is significant difference in the group means when looking at Status in the U.S. and Hardiness as well as, usage of English at home and Motivation to Lead. In addition, Grit, Hardiness, and Motivation to Lead have a significant mean difference by the level of education of the subject. In order to confirm the differences between the groups, I decided to run a Post Hoc Test. This will show statistically significance difference in the group means.

Hardiness and the status of the subject in the U.S show significant difference. As seen in Table 13, the number of subjects identified as Other, International Student, and DACA is relatively small in comparison to U.S. Permanent Resident/Citizen. For further studies, it will be interesting to see the results of this analysis, but with a greater representation in those groups. With that being said, one can see that the hardiness mean for international students is the highest, followed by U.S. Permanent Resident/Citizen. DACA recipients and Other. When looking at the Post Hoc Test, one can see that the mean significant difference is between Internationals and Others.

Table13. ANOVA: Hardiness and Status in the U.S.

Descriptives

	N	Mean	Std. Dev.	Std. Error	95% Conf. Interval for Mean		Min	Max
					Lower Bound	Upper Bound		
U.S. Permanent Resident/Citizen	54	3.0272	0.26255	0.03573	2.9555	3.0988	2.17	3.53
DACA	7	3.0143	0.24785	0.09368	2.7851	3.2435	2.57	3.37
International Student	3	3.4111	0.25240	0.14572	2.7841	4.0381	3.23	3.70
Other	2	2.6167	0.25927	0.18333	0.2872	4.9461	2.43	2.80
Total	66	3.0308	0.27725	0.03413	2.9627	3.0990	2.17	3.70

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	0.780	3	0.260	3.821	0.014
Within Groups	4.217	62	0.068		
Total	4.996	65			

Post Hoc Tests

Multiple Comparisons

Dependent Variable:

Tukey HSD

(I) Status in the US	(J) Status in the US	Mean Difference (I-J)	Std. Error	Sig.	95% Conf. Interval	
					Lower Bound	Upper Bound
U.S. Permanent Resident/Citizen (1)	2	0.01287	0.10476	0.999	-0.2637	0.2895
	3	-0.38395	0.15469	0.073	-0.7924	0.0245
	4	0.41049	0.18779	0.139	-0.0853	0.9063
DACA (2)	1	-0.01287	0.10476	0.999	-0.2895	0.2637
	3	-0.39683	0.17996	0.133	-0.8719	0.0783
	4	0.39762	0.20910	0.238	-0.1544	0.9497
International Student (3)	1	0.38395	0.15469	0.073	-0.0245	0.7924
	2	0.39683	0.17996	0.133	-0.0783	0.8719
	4	.79444*	0.23807	0.008	0.1659	1.4230
Other (4)	1	-0.41049	0.18779	0.139	-0.9063	0.0853
	2	-0.39762	0.20910	0.238	-0.9497	0.1544
	3	-.79444*	0.23807	0.008	-1.4230	-0.1659

*. The mean difference is significant at the 0.05 level.

Table 14 shows the descriptive statistics and ANOVA for motivation to lead and usage of English at home. Strangely enough the mean of Motivation to Lead is greater for individuals that speak English at home very often, followed by those who rarely or never speak English at home, and lastly by those that only speak it sometimes. In the Post Hoc analysis, one can see that there is significant difference between the group that spoke English at home sometimes and the ones that did it very often.

Table14. ANOVA: Motivation to Lead and Usage of English at Home

Descriptives

	N	Mean	Std. Deviation	Std. Error	95% Conf. Interval for Mean		Min	Max
					Lower B.	Upper B.		
Rarely or Never	8	4.8194	0.58273	0.20603	4.3323	5.3066	3.81	5.30
Sometimes	19	4.5380	0.59903	0.13743	4.2493	4.8267	3.48	6.07
Very Often	39	5.1690	0.80670	0.12918	4.9075	5.4305	3.41	6.41
Total	66	4.9450	0.77257	0.09510	4.7551	5.1349	3.41	6.41

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5.231	2	2.615	4.909	0.010
Within Groups	33.565	63	0.533		
Total	38.796	65			

Post Hoc Tests

Multiple Comparisons

Dependent Variable:						
Tukey HSD						
(I) Usage of English at Home	(J) Usage of English at Home	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower B.	Upper B.
Rarely or Never (1)	2	0.28143	0.30764	0.633	-0.4570	1.0199
	3	-0.34960	0.28330	0.438	-1.0296	0.3304
Sometimes (2)	1	-0.28143	0.30764	0.633	-1.0199	0.4570
	3	-.63103*	0.20421	0.008	-1.1212	-0.1409
Very Often (3)	1	0.34960	0.28330	0.438	-0.3304	1.0296
	2	.63103*	0.20421	0.008	0.1409	1.1212
*. The mean difference is significant at the 0.05 level.						

The higher the education, the higher grit, hardiness, and motivation to lead, as seen in Table 15-17. Bachelors or higher had the highest mean in grit, hardiness, and motivation to lead. Followed by the mean of the individuals that had some college, associate or technical degree, or are currently in college, and lastly the individuals that had a high school degree or less.

Table15. ANOVA: Grit and Level of Education

Descriptives

	N	Mean	Std. Dev.	Std. Error	95% Conf. Interval for Mean		Min	Max
					Lower	Upper		
High school or less	16	3.4479	0.45934	0.11484	3.2032	3.6927	2.58	4.08
Some college/ Associate/Technical/ currently in college	34	3.5221	0.50223	0.08613	3.3468	3.6973	2.67	4.67
Bachelors or higher	16	3.8906	0.41691	0.10423	3.6685	4.1128	3.08	4.50
Total	66	3.5934	0.49647	0.06111	3.4714	3.7155	2.58	4.67

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.925	2	0.963	4.302	0.018
Within Groups	14.096	63	0.224		
Total	16.021	65			

Post Hoc Tests

Multiple Comparisons

Dependent Variable:

Tukey HSD

(I) Highest level of education	(J) Highest level of education	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower	Upper
High school or less (1)	2	-0.07414	0.14340	0.863	-0.4184	0.2701
	3	-.44271*	0.16724	0.027	-0.8441	-0.0413
Some college/ Associate/Technical/ currently in college (2)	1	0.07414	0.14340	0.863	-0.2701	0.4184
	3	-.36857*	0.14340	0.033	-0.7128	-0.0243
Bachelors or higher (3)	1	.44271*	0.16724	0.027	0.0413	0.8441
	2	.36857*	0.14340	0.033	0.0243	0.7128

*. The mean difference is significant at the 0.05 level.

Table16. ANOVA: Hardiness and Level of Education

Descriptives

	N	Mean	Std. Dev.	Std. Error	95% Conf. Interval for Mean		Min	Max
					Lower Bound	Upper Bound		
High school or less	16	2.9542	0.24187	0.0605	2.8253	3.0830	2.43	3.30
Some college/ Associate/Technical /currently in college	34	2.9627	0.27374	0.0470	2.8672	3.0583	2.17	3.53
Bachelors or higher	16	3.2521	0.20183	0.0505	3.1445	3.3596	2.83	3.70
Total	66	3.0308	0.27725	0.0341	2.9627	3.0990	2.17	3.70

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.035	2	0.517	8.229	0.001
Within Groups	3.961	63	0.063		
Total	4.996	65			

Post Hoc Tests

Multiple Comparisons						
Dependent Variable:						
Tukey HSD						
(I) Highest level of education	(J) Highest level of edu.	Mean Diff. (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
High school or less (1)	2	-0.00858	0.07602	0.993	-0.1911	0.1739
	3	-.29792*	0.08866	0.004	-0.5107	-0.0851
Some college/ Associate/Technical /currently in college (2)	1	0.00858	0.07602	0.993	-0.1739	0.1911
	3	-.28934*	0.07602	0.001	-0.4718	-0.1069
Bachelors or higher (3)	1	.29792*	0.08866	0.004	0.0851	0.5107
	2	.28934*	0.07602	0.001	0.1069	0.4718
*. The mean difference is significant at the 0.05 level.						

Table17. ANOVA: Motivation to Lead and Level of Education

Descriptives

	N	Mean	Std. Dev.	Std. Error	95% Conf. Interval for Mean		Min	Max
					Lower Bound	Upper Bound		
High school or less	16	4.7060	0.73198	0.18300	4.316	5.096	3.78	5.96
Some college/ Associate/Technical/ currently in college	34	4.8105	0.76762	0.13165	4.543	5.078	3.41	6.15
Bachelors or higher	16	5.4699	0.59869	0.14967	5.151	5.789	4.30	6.41
Total	66	4.9450	0.77257	0.09510	4.755	5.135	3.41	6.41

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5.938	2	2.969	5.692	0.005
Within Groups	32.859	63	0.522		
Total	38.796	65			

Post Hoc Tests

Multiple Comparisons

Dependent Variable:

Tukey HSD

(I) Highest level of education	(J) Highest level of education	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
High school or less (1)	2	-0.10444	0.21895	0.882	-0.6300	0.4211
	3	-.76389*	0.25533	0.011	-1.3768	-0.1510
Some college/ Associate/Technical/ currently in college (2)	1	0.10444	0.21895	0.882	-0.4211	0.6300
	3	-.65945*	0.21895	0.010	-1.1850	-0.1339
Bachelors or higher (3)	1	.76389*	0.25533	0.011	0.1510	1.3768
	2	.65945*	0.21895	0.010	0.1339	1.1850

*. The mean difference is significant at the 0.05 level.

T-Test Discussion

Since some variables had less than 3 groups, I conducted an independent-samples t-test, also known as two sample t-test. As shown in Table 12, the independent variables were Grit, Hardiness and Motivation to Lead, while the dependent variables were the categorical variables that had two groups. Table 12 shows that there is significant difference between Involvement in high school and Motivation to Lead, involvement in afterschool programs and Hardiness, and being a First-Generation college student and Grit.

Table 18 shows two sample t-test for involvement in high school and Motivation to Lead. One can see that the mean Grit for first generation college students is higher than the one for those who are not first-generation students. Similarly, one can see that the minimum and maximum Grit results are higher in first generation students. In other words, first generation college students have more grit than students that are not first generation.

Table 18. Two Sample T-Test: Grit and First Generation

Group Statistics				
	N	Mean	Std. Dev.	Std. Error Mean
Yes	30	3.7611	0.45943	0.08388
No	20	3.4583	0.52252	0.11684

Independent Samples Test									
	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Diff.	Std. Error Diff.	95% Conf. Int. of the Diff.	
								Lower	Upper
Equal variances assumed	1.097	0.300	2.161	48	0.036	0.30278	0.14012	0.02105	0.58451
Equal variances not assumed			2.105	37.164	0.042	0.30278	0.14383	0.01139	0.59416

Moreover, Hardiness and involvement in afterschool programs also seemed to have significant difference. In Table 19, one can see that the mean of hardiness is greater for the students that were not involved in afterschool programs. In the survey, I had asked the participants whether they were a part of Upward Bound, English Language Learner, Talent Search, YMCA, Project GRAD, Migrant Leadership Institute, or other programs. I was intrigued about this relationship; hence I ran some descriptive statistics for the age of both groups -the ones that were involved in after school programs and the ones that were not. The group that was involved had mean age of 20.63 years old with a standard deviation of 4.28 years (Min=15, Max=35). The group that was not involved in afterschool programs had a mean age of 23.38 years old with a standard deviation of 7.83 (Min=15, Max=50). The group that was not involved appears to be older. In other words, there may be confounding variables like age, availability of the program, employment during high school, and others that may affect this relationship.

Table 19. Two Sample T-Test: Hardiness and Involvement in Afterschool Programs

Group Statistics				
	N	Mean	Std. Dev.	Std. Error Mean
Yes	19	2.846	0.3033	0.0696
No	47	3.106	0.2296	0.0335

Independent Samples Test									
	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig (2-tailed)	Mean Diff.	Std. Error Diff.	95% Conf. Interval of the Diff.	
								Lower	Upper
Equal variances assumed	0.795	0.376	-3.788	64	0.000	-0.260	0.069	-0.397	-0.123
Equal variances not assumed			-3.368	26.744	0.002	-0.260	0.077	-0.419	-0.102

Equally important, when looking at motivation to lead and involvement in high school organizations or programs, one can see that there is a statistically significant difference in the means of the groups as seen in Table 20. The group that was involved in groups and clubs has a higher mean of motivation to lead than those who were not involved. The lower bound and upper bound are also higher for those who were involved in high school.

Table 20. Two Sample T-Test: Motivation to Lead and Involvement in High School

Group Statistics

Involved in high school	N	Mean	Std. Dev.	Std. Error Mean
Yes	62	4.9976	0.7539	0.0957
No	4	4.1296	0.6573	0.3287

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Diff.	Std. Error Diff.	95% Conf. Interval of the Diff.	
								Lower	Upper
Equal variances assumed	0.952	0.333	2.244	64	0.028	0.8679	0.38672	0.0954	1.6406
Equal variances not assumed			2.535	3.530	0.073	0.8679	0.34233	-0.1346	1.8706

Correlation Analysis

At last, I wanted to see if the numerical variables had a linear relationship, hence I used a correlational analysis which measures the linear association between the variables. The correlation not only measures the direction of the association but also the strength. I was interested to see if Grit, Hardiness, and Motivation to Lead had a possible connection and, if so,

how strong and significant. Table 20 shows the correlation coefficient value as well as the significance of the association.

Table21. Correlation Matrix for Hardiness, Grit, and Motivation to Lead (MTL)

		Hardiness	**Grit**	**MTL**
Hardiness	Pearson Correlation	1		
	Sig. (2-tailed)			
Grit	Pearson Correlation	.351**	1	
	Sig. (2-tailed)	0.004		
MTL	Pearson Correlation	.524**	.374**	1
	Sig. (2-tailed)	0	0.002	
**. Correlation is significant at the 0.01 level (2-tailed).				

Correlation Analysis Discussion

The Pearson correlation coefficient (also known as r) tells us the direction of the relationship. In Table 20 one can see that the coefficients are positive, which means that the variables have a positive association. The association between grit and hardiness has an r =0.351 which means that variables have a low positive relation, however is significant at the 0.01 level. Similarly, motivation to lead and grit have an r = 0.374 which again, is a low positive relation, but still significant at 0.01. Lastly, motivation to lead and hardiness have an r = 0.524 which is also a low positive relation, bust still significant at 0.01. In conclusion, grit, hardiness, and motivation to lead are all significantly positively associated.

CHAPTER 5

CONCLUSION

The first objective of this research was accomplished. Through this study I was able to identify some factors that have an association with Hispanics achieving higher education. The analysis shows that, regardless of their level of education, the caregiver will encourage their student to pursue a higher education. What is more, there is an association between the caregiver's information on higher education and their own education. However, the research shows that the level of education of the caregiver does not have an association with the level of education of the subject. That means that despite the caregiver not having a high school degree or having a doctoral degree, the subject chooses their education level.

There is also an association between the schooling done in the United States and the level of education of the subject. This makes sense because the more the student has been in school in the U.S. the more acculturation the individual has, the better language abilities and understanding, and the more they are exposed to the educational process of the United States. The gender of the subject has an association with whether or not they are involved in high school organizations or clubs. Conversely, the involvement in high school organizations or clubs does not have an association with education level. However, for the individuals that had a bachelor's degree or higher, there was an association between involvement in afterschool programs during high school and their level of education.

In addition, first generation students have an association to having Hispanic mentors during high school. Most likely they seek guidance and support that they might not be able to get at home. This emphasizes that there is benefit in educating parents in the options and application

process. Since people do not know what they have not been exposed to, it is important to show the parents the schooling options and financial support that is available for their children.

Moreover, it was identified that first-generation students tend to showcase more Grit than their counter parts. Given that Grit is the commitment to long-term goals, one could think that if interested in higher education, first-generation students will be able to accomplish their goal at some point. Also, it was observed that there is a correlation between citizenship statuses and hardiness, which is the ability to endure difficult conditions. International students portrayed more hardiness than U.S. Permanent Resident/Citizen, DACA recipients, and others. This makes sense because they leave their country and, in some cases, their families behind, and have to endure difficult times in hopes of a better future while, perhaps, motivating others to do the same.

This leads us to motivation to lead. When talking about motivation to lead (the motivation of a person to acquire a leadership position), one can see that the subjects that use more English at home have a higher motivation to lead than those that speak it sometimes. Surprisingly, those who rarely or never speak English at home, have higher motivation to lead that those that speak it sometimes. Undoubtedly, there are confounding variables that have been overlooked.

In the same way, one can see that individuals that were involved in high school organizations or clubs have more motivation to lead than those who were not involved. This makes sense because being involved in an organization would develop and put in practice their motivation to lead. One can also see that the more education the individual has, the more they exemplify grit, hardiness, and motivation to lead. Finally, it was concluded that there is a low positive relation between grit and hardiness, grit and motivation to lead, and hardiness and

motivation to lead. Although the association is low, they still have significance. This leads us to our second objective: proposing strategies and tools that create a more enriching and supportive academic environment to attract more Hispanic students to college campuses.

Recommendations

Supported by this research, I will discuss some recommendations. It will be beneficial to increase the effort to educate caregivers in the options that their children have, as well as the application process and funding opportunities. In Tennessee one of the organizations known for educating and advocating for Hispanics is Conexion Americas, however they are based in Nashville TN. With this being said most of their services are not offered in the Northeast Tennessee Region, however the Language and Culture Resource (LCRC) and Catholic Charities have more programs in the area. Either the LCRC, Catholic Charities, or another organization can become more active in educating parents.

Moving forward, since involvement in high school, afterschool program, and mentoring for first generation students proved to have an association with educational attainment, it will be beneficial for universities or colleges to partner with high schools and middle schools in the area. For example, Robotics clubs in high schools could partner with the ETSU Engineering department. This will allow college students to mentor, guide, and help the high school/middle school students to pursue their interest and increase their knowledge in robotics. By the same token, departments in colleges and universities can try to get grants to run summer programs aiming to establish a relationship with the students and increase their enrollment in the future.

Finally, it may be beneficial for the state, nonprofit organizations or people that care, to establish a charter school. It would be beneficial to have a charter school for Hispanics given that

it would base its curriculum on the needs of the population. For instance, it could have half of the curriculum in English and the other half in Spanish. By doing so, students that come to the U.S. later can enroll and still further their education in Spanish while learning English. Since charter schools are funded by the government, but managed independently, they could partner with colleges and universities for day events or afterschool programs to promote education attainment and retention. This could ease the acculturation process and offer support and growth opportunities for this group.

Limitations of The Study and Recommendation for Future Research

From the start, we knew that this population is sensitive and that this would lead to us not being able to achieve the desired response rate. A major limitation was the lack of support from the school systems and organizations. This leads us to recommend having a similar study done as a state initiative or professional organizations - like the Hispanic Chamber of Commerce -that includes more numerical data like GPA, household income, and other variables. This would increase the number of respondents and, hopefully, have a homogenous count amongst different groups within the population.

REFERENCES

Abrego, L. (2006). “I can’t go to college because I don’t have papers”: Incorporation patterns of Latino undocumented youth. *Latino Studies*, *4*(3), 212–232.

Bartone, P. (1995). A Short Hardiness Scale. Walter Reed Army Instiute of Researc US Army Medical Research Unit-Germany.

Bartone, P., Ursano, R., Wright, K., & Ingraham, L. (1989). The Impact of Military Air Disaster on The Health of Assistance Workers. *The Journal of Nervous and Mental Disease*, *177*(6), 317–328.

Chan, K.-Y., & Drasgow, F. (2001). Toward a Theory of Individual Differences and Learderhip: Understanding the Motivation to Lead. *Jounral of Applied Psychology*, *86*(3), 481–498.

Chan, K. Y., & Drasgow, F. (2001). Toward a theory of individual differences and leadership: Understanding the motivation to lead. *Journal of Applied Psychology*, *86*(3), 481–498. http://doi.org/10.1037//0021-9010.86.3.481

Dennis, J., Phinney, J., & Chuateco, L. (2005). The role of motivation, parental support, and peer support in the academic success of ethnic minority first-generation college students. *Journal of College Student Development*, *46*(3), 223–236. http://doi.org/10.1353/csd.2005.0023

Duckworth, A. L., Peterson, C., Matthews, M. D., & Kelly, D. R. (2007). Grit: Perseverance and Passion for Long-Term Goals. *Journal of Personality and Social Psychology*, *92*(6), 1087–1101. http://doi.org/10.1037/0022-3514.92.6.1087

Fan, W., Williams, C. M., & Wolters, C. A. (2012). Parental involvement in predicting school motivation: Similar and differential effects across ethnic groups. *Journal of Educational Research*, *105*(1), 21–35. http://doi.org/10.1080/00220671.2010.515625

Guillén, L., Mayo, M., & Korotov, K. (2015). Is leadership a part of me? A leader identity approach to understanding the motivation to lead. *Leadership Quarterly*, *26*(5), 802–820. http://doi.org/10.1016/j.leaqua.2015.05.001

Kao, G., & Thompson, J. S. (2003). Racial and Ethnic Stratification in Educational Achievement and Attainment. *Annual Review of Sociology*, *29*(1), 417–442. http://doi.org/10.1146/annurev.soc.29.010202.100019

Knaggs, C. M., Sondergeld, T. A., & Schardt, B. (2015). Overcoming Barriers to College Enrollment, Persistence, and Perceptions for Urban High School Students in a College Preparatory Program. *Journal of Mixed Methods Research*, *9*(1), 7–30. http://doi.org/10.1177/1558689813497260

Krogstad, J. (2016). 5 facts about Latinos and education. Retrieved from http://www.pewresearch.org/fact-tank/2016/07/28/5-facts-about-latinos-and-education/

Lee, W. W. S. (2017). Relationships among grit, academic performance, perceived academic failure, and stress in associate degree students. *Journal of Adolescence*, *60*, 148–152. http://doi.org/10.1016/j.adolescence.2017.08.006

Levin, K. A. (2006). Study design III: Cross-sectional studies. *Evidence-Based Dentistry*, *7*(1), 24–25. http://doi.org/10.1038/sj.ebd.6400375

Lifton, D. E., Seay, S., & Bushko, A. (2000). Can Student "Hardiness" Serve as an Indicator of Likely Persistence to Graduation? Baseline Results from a Longitudinal Study. *Academic Exchange Quarterly*, *2*(Summer), 73–89.

Maddi, S. R. (2006). Hardiness: The courage to grow from stresses. *Journal of Positive Psychology*, *1*(3), 160–168. http://doi.org/10.1080/17439760600619609

McCallister, L., Evans, J., & Illich, P. (2010). Perceptions about Higher Education among Parents of Hispanic Students in Middle School: Implications for Community Colleges. *Community College Journal of Research and Practice*, *34*(10), 784–796. http://doi.org/10.1080/10668920802605254

Nagle, N. N., Gustafson, R., & Burd, C. (2012). *A Profile of Hispanic Population in the State of Tennessee*. Retrieved from http://cber.bus.utk.edu/

O'Neal, C. R., Espino, M. M., Goldthrite, A., Morin, M. F., Weston, L., Hernandez, P., & Fuhrmann, A. (2016). Grit under duress: Stress, strengths, and academic success among non-citizen and citizen Latina/o first-generatino college students. *Hispanic Journal of Behavioral Sciences*, *38*(4), 446–466. http://doi.org/10.1177/0739986316660775

Patten, M. (2012). *Understanding Research Methods*. Pyrczak Publishing.

Próspero, M., Russell, A. C., & Vohra-Gupta, S. (2012). Effects of motivation on educational attainment: Ethnic and developmental differences among first-generation students. *Journal of Hispanic Higher Education*, *11*(1), 100–119. http://doi.org/10.1177/1538192711435556

Sheard, M., & Golby, J. (2007). Hardiness and undergraduate academic study: The moderating role of commitment. *Personality and Individual Differences*, *43*(3), 579–588. http://doi.org/10.1016/j.paid.2007.01.006

Stepler, R., & Lopez, M. H. (2016). Ranking the Latino population in the states. Retrieved from http://www.pewhispanic.org/2016/09/08/4-ranking-the-latino-population-in-the-states/

Stern, G. M. (2009). Why Latino Students Are Failing to Attend College. *The Hispanic Outlook in Higher Education*, *19*, 46–49.

Syed, M., Azmitia, M., & Cooper, C. R. (2011). Identity and Academic Success among Underrepresented Ethnic Minorities: An Interdisciplinary Review and Integration, Identity and Academic Success among Underrepresented Ethnic Minorities: An Interdisciplinary Review and Integration. *Journal of Social Issues, Journal of Social Issues*, *67*(3), 442–468. http://doi.org/10.1111/j.1540-4560.2011.01709.x, 10.1111/j.1540-4560.2011.01709.x

Tennessee Higher Education Commission. (2016). *Profiles and Trends in Tennessee Higher Education*.

Trevino, N. N., & DeFreitas, S. C. (2014). The relationship between intrinsic motivation and academic achievement for first generation Latino college students. *Social Psychology of Education*, *17*(2), 293–306. http://doi.org/10.1007/s11218-013-9245-3

U.S. Census Bureau. (2015). Vintage 2015 Population Estimates.

U.S. Census Bureau. (2016). Vintage 2016 Population Estimates. Retrieved from

https://www.census.gov/data/tables/2017/demo/popest/state-detail.html

U.S. Census Bureau. (2017a). *2012-2016 American Community Survey 5-Year Estimates, Table B14007I and B14001*.

U.S. Census Bureau. (2017b). 2016 American Community Survey, Table B15002I. Retrieved from http://factfinder.census.gov/bkmk/table/1.0/en/ACS/16_1YR/B15002I

Walker, C. (1989). Correlational Research. *Journal of Pediatric Oncology Nursing*, *6*(1), 21–22. http://doi.org/https://doi-org.iris.etsu.edu:3443/10.1177/104345428900600108

APPENDIX
Online Survey

AN ASSESSMENT OF THE FACTORS THAT INCREASE THE LIKELINESS OF HISPANIC STUDENTS TO ATTEND COLLEGE IN THE NORTHEAST TENNESSEE REGION

NOTE: Please be aware that branching logic and calculated fields will not function on this page. They only work on the survey pages and data entry forms.

Dear Participant:

My name is Denise Chavez Reyes. I am a candidate for a Master's of Science in Technology at East Tennessee State University. To finish my studies, I need to complete a research project. The name of my research study is "An Assessment of the Factors that Increase the Likeliness of Hispanic Students to Attend Higher Education in Northeast Tennessee Region".

The purpose of this study is to identify what factors can predict the behavior of individuals when choosing an education path. With that information, we might be able to influence, motivate, and help our younger generations. I would like to give a brief survey to Hispanics individuals that are at least 14 years old using Research Electronic Data Capture (REDCap). It should take about 30 minutes to finish. You will be asked questions about your demographics, extracurricular activities, motivation to lead, amongst others. Since this study deals with personal questions there is the risks of getting sad at some of them. However, you may also feel better after you have had the chance to express yourself about Hispanics in higher education. There is also the possibility of losing confidentiality though we have done everything in our power to prevent that from happening. This study will not benefit you directly, but it may benefit others by helping us provide better resources for their success.

Your confidentiality will be protected as best we can. Since we are using technology no guarantees can be made about the interception of data sent over the Internet by any third parties, just like with emails. We will make every effort to make sure that your name is not linked with your answers. REDCap has security features that will be used: IP addresses will not be collected nor other identifiers. In addition we will password protect the data set and encrypt zip files. Although your rights and privacy will be protected, the East Tennessee State University (ETSU) Institutional Review Board (IRB) (for non-medical research) and people working on this research (Denise Chavez and Dr. Mohammad Uddin) can view the study records.

Taking part in this study is voluntary. You may decide not to take part in this study. You can quit at any time. You can exit the online survey form if you want to stop completely. If you quit or decide not to take part, the benefits or treatment that you would otherwise get will not be changed.

If you have any research-related questions or problems, you may contact me, Denise Chavez Reyes at chavezd@etsu.edu. I am working on this project with my advisor Dr. Mohammad Uddin. You may reach him at uddinm@etsu.edu. Also, you may call the chairperson of the IRB

at ETSU at (423) 439-6054 if you have questions about your rights as a research subject. If you have any questions or concerns about the research and want to talk to someone who is not with the research team or if you cannot reach the research team, you may call an IRB Coordinator at 423/439-6055 or 423/439-6002.

Sincerely,

Denise Chavez Reyes

Clicking the AGREE button below indicates

- I have read the above information
- I agree to volunteer
- I am Hispanic/Latino
- I am at least 14 years old

- o I AGREE
- o I DO NOT AGREE

1. Which one you identify with?
- Male
- Female
- Prefer not to say
- Other:

If Other (Please describe):

2. What is your age?

3. In which Tennessee county do you live?

4. Who is your Primary Caregiver#1 (Person that takes/took care of you when you were a minor)?
   - Father
   - Mother
   - Grandmother
   - Grandfather
   - Aunt
   - Uncle
   - Other

   If other, how is the person related to you?

5. What is your first primary caregiver's degree or level of school completed?
   - No Schooling
   - Less than a highschool degree
   - High school graduate or equivalent
   - Some college, no diploma
   - Technical school
   - Associate Degree
   - Bachelors Degree
   - Masters Degree
   - Doctorate degree

6. How likely is it for your Primary Caregiver #1 to speak English at their workplace?
- To a Great Extend
- Somewhat
- Very Little
- Not at All
- He/She does not need to, they do not live in the USA

7. Who is your Primary Caregiver#2 (Other person that takes/took care of you when you were a minor)?
- Father
- Mother
- Grandmother
- Grandfather
- Aunt
- Uncle
- Other

If other, how is the person related to you?

8. What is your second primary caregiver's degree or level of school completed?
- No Schooling
- Less than a highschool degree
- High school graduate or equivalent
- Some college, no diploma
- Technical school
- Associate Degree
- Bachelors Degree
- Masters Degree
- Doctorate degree

9. How likely is it for your Primary Caregiver #2 to speak English at their workplace?
- To a Great Extend
- Somewhat
- Very Little
- Not at All
- He/She does not need to, they do not live in the USA

10. How often is English spoken in your household?
- Always
- Very Often
- Sometimes
- Rarely
- Never

11. What is your native language?
- English
- Spanish
- Other:
  If Other, which:

12. How would you describe your status in the U.S? (Reminder: This information is anonymous and confidential. The answer to this question is meant to see the relationship between status and education)
- o U.S. Citizen
- o U.S. Permanent Resident
- o DACA
- o F1 Visa
- o J1 Visa
- o Other
- o Rather not answer

13. I have lived in the United States...
- o All my life
- o Less than a year
- o 1 - 5 years
- o 6- 10 years
- o 10-15 years
- o more than 15

14. What grades did you complete in the US? (Check all that apply, select the category even if you started in the middle of it)
- o Preschool
- o Elementary School -> Kindergarten - 5th grade
- o Middle School -> 6th grade - 8th grade
- o High School -> 9th - 12th
- o None

15. There are established programs that motivate and help students achieve a higher education. Which of these programs are/were you a part of?
- o Upward Bound
- o English Language Learner (ELL)
- o Talent Search
- o YMCA
- o Project GRAD
- o Migrant Leadership Institute/Conexion Americas
- o Other
- o None

16. What programs were you involved with? (Please select all of the extra-curricular activities you were involved in during your high school career)
- □ Student Government
- □ Political activities
- □ Sports teams
- □ Church activities

- ☐ Hispanic Organizations
- ☐ Community Service
- ☐ Organizations related to major
- ☐ Performing arts
- ☐ Other:

17. How often were you encouraged to pursue higher education? (Any education after high school)
- o Always
- o Very Frequently
- o Occasionally
- o Rarely
- o Very rarely
- o Never

18. Did you have Hispanic teachers/school staff that you considered a mentor/role mode during high school?
- o Yes teachers and staff
- o Yes only teachers
- o Yes only staff
- o Neither

19. The following statements aim to measure your level of hardiness, the ability to endure difficult conditions. For each statement select the options that feels true for you.

20. The following statements describe your desire to be a leader. Please respond by indicating the degree to which each of the statements applies to you using the following scale.

	Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree
Most of the time, I prefer being a leader rather than a follower when working in a group.							
I am the type of person who is not interested to lead others.							
I am definitely not a leader by nature.							
I am the type of person who likes to be in charge of others.							
I believe I can contribute more to a group if I am a follower rather than a leader.							
I usually want to be the leader in the groups that I work in.							
I am the type who would actively support a leader but prefers not to be appointed as leader.							
I have a tendency to take charge in most groups or teams that I work in.							
I am seldom reluctant to be the leader of a group.							
I am only interested to lead a group if there are clear advantages for me.							
I will never agree to lead if I cannot see any benefits from accepting that role.							

I would only agree to be a group leader if I know I can benefit from that role.							
I would agree to lead others even if there are no special rewards or benefits with that role.							
I would want to know "what's in it for me" if I am going to agree to lead a group.							
I never expect to get more privileges if I agree to lead a group.							
If I agree to lead a group, I would never expect any advantages or special benefits.							
I have more of my own problems to worry about than to be concerned about the rest of the group.							
Leading others is really more of a dirty job rather than an honorable one.							
I feel that I have a duty to lead others if I am asked.							
I agree to lead whenever I am asked or nominated by the other members.							
I was taught to believe in the value of leading others.							
It is appropriate for people to accept leadership roles or positions when they are asked.							
I have been taught that I should always volunteer to lead others if I can.							

It is not right to decline leadership roles.							
It is an honor and privilege to be asked to lead.							
People should volunteer to lead rather than wait for others to ask or vote for them.							
I would never agree to lead just because others voted for me.							

21. Below are several statements that aim to measure your level of grit. Grit shows an individual's passion for a particular long-term goal or end state. Using the response scale below, indicate your agreement or disagreement with each item by choosing the correct option.

	Strongly Disagree	Disagree	Neutral	Agree
I often set a goal but later choose to pursue a different one				
New ideas and new projects sometimes distract me from previous ones				
I become interested in new pursuits every few months				
My interests change from year to year				
I have been obsessed with a certain idea or project for a short time but later lost interest				
I have difficulty maintaining my focus on projects that take more than a few months to complete				
I have achieved a goal that took years of work				
I have overcome setbacks to conquer an important challenge				
I finish whatever I begin				
Setbacks don't discourage me				
I am a hard worker				
I am diligent				

22. Do you think that your primary care givers have/had enough information about college applications, college life, financial aid, etc.?
- Yes, they knew all about it
- Yes, they had some idea
- No

23. Think about your overall experience as a student thus far. How do you feel your experience has been shaped by your ethnicity?

24. In what ways do you feel your school is particularly helpful to Latino students? In what ways can it improve?

25. To your knowledge, what are some of the barriers that stop students from obtaining a higher education?

26. What is the highest level of school you have completed?
    - Some high school
    - Currently in high school
    - High school graduate or equivalent
    - Some College
    - Currently in College
    - Technical school
    - Associate Degree
    - Bachelors Degree
    - Masters Degree
    - Doctorate degree

27. What is your highest grade level completed if no high school diploma?
    - 9th grade
    - 10th grade
    - 11th grade
    - 12th grade

28. How many semesters have you completed?
    - One
    - Two
    - Three
    - Four
    - Five
    - Six
    - Seven

- Eight
- More than Eight

29. During your college years, how often have you used the services listed below? Please indicate by selecting the most appropriate column.

	Never	Occasionally	Often	Always
Career Resources				
Counseling Center				
Academic Advising				
Academic Resource Center				
Multicultural Center				
Women's Center				
Disability Resource Center				
Hispanic Center				

30. Are you the first one in your family to pursue higher education (college) in the US?
    - Yes
    - No

31. Please select all of the extra-curricular activities in which you have participated during your college career
    - Student Government
    - Political activities
    - Sports teams
    - Church activities
    - Hispanic Organizations
    - Community Service
    - Organizations related to major
    - Performing arts
    - Other

32. Did you have a Hispanic teacher/school staff that you considered a mentor/role model during college?
    - Yes teachers and staff
    - Yes only teachers
    - Yes only staff
    - Neither

VITA

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