ACHIEVEMENT MOTIVATION IN HISPANIC UNIVERSITY STUDENTS:
ASSOCIATIONS WITH REASONS FOR ATTENDING COLLEGE

A Thesis
by
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Abstract

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ASSOCIATIONS WITH REASONS FOR ATTENDING COLLEGE

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Despite the trend of increasing diversity in the United States population, a concomitant increase in research on ethnic differences in achievement motivation has not been observed. As the attainment of an undergraduate degree becomes a necessity for positive life outcomes, further research is needed to assess ethnic minority students' motivations for pursuing a higher education and how they relate to their levels of achievement motivation in the college classroom. A sample of ethnically diverse undergraduate students (n = 180) completed surveys targeting their achievement motivation (achievement goals and extrinsic/intrinsic motivation), motivations for attending college, and academic performance. Results revealed no ethnic differences in students' achievement motivation and reasons for attending college, with one exception - Hispanic students were more likely to attend college because of encouragement than were Non-Hispanic White students. Neither achievement motivation nor ethnicity was able to predict students' academic performance. Students' achievement motivation orientation better explained reasons for attending college than ethnicity.

Keywords: achievement motivation, achievement goals, instinct/extrinsic motivation, motivations for attending college, ethnic differences

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Foreword

This thesis is written in accordance with the style of the *Publication Manual of the American Psychological Association (6th Edition)* as required by the Department of Psychology at Appalachian State University.

Achievement Motivation in Hispanic University Students: Associations with Reasons for

Attending College

Despite the intentions of the No Child Left Behind legislation to improve the

outcomes of *all* students in the United States, Hispanic youth continue to trail behind other

ethnicities in relation to academic achievement (Hemphill &Vanneman, 2011), high school

graduation rates (Child Trends Databank, 2015), and college graduation rates (Kena et.al.,

2015). The results of the most recent National Assessment of Educational Progress (NAEP)

assessments in mathematics and reading at grades four and eight indicate that the

achievement gap between Hispanic and Non-Hispanic White students has not changed

significantly from 1990 to 2015 (National Assessment of Educational Progress, 2015). While

Hispanic students' average scores have increased in the past three decades, so have those of

Non-Hispanic White students, ultimately maintaining the academic divide between the two

ethnicities. This group's relative underachievement is further reflected in scores on

standardized college admissions tests. In 2015, the average Scholastic Assessment Test

(SAT) score of students of Hispanic descent ranged from 1342 to 1347, which is nearly 200

points lower than that of their Non-Hispanic White peers (The College Board, 2015).

It comes as no surprise that years of academic underachievement in K-12 schools are

reflected in Hispanic youth's low college graduation rates. Despite the recent spike of

Hispanic high school seniors enrolling in college, this ethnic minority group continues to lag

behind its Non-Hispanic White counterpart in degree attainment. For instance, out of all

Hispanic students who enrolled in a four-year institution, only 30% completed their

bachelor's degree in comparison to 44% of Non-Hispanic White students (Kena et.al., 2015).

These findings are of particular concern given the prediction that by 2050, Non-Hispanic

Whites will no longer be the predominant ethnicity in the United States (Pew Research

Center, 2008). The changing demographics will not only alter the face of the nation, but they

will also impact the ethnic composition of U.S. schools (Crouch, Zakariya, & Jiandani,

2012). The percentage of school-aged Hispanic students is projected to grow from 17 percent

in 2014 to 34 percent in 2060 (Colby & Ortman, 2015). With such an increase, it is

imperative to examine factors that may promote Hispanic students' achievement and

graduation rates. Research indicates that educators can increase the likelihood of academic

success and student retention by promoting student motivation (Allen, 1999; Lotkowski,

Robbins, & Noeth, 2004). However, the literature analyzing motivation in ethnic minorities,

especially in Hispanic students, is scarce. In light of the academic underperformance, lower

high school and college graduation rates, and expected population growth of Hispanic youth

in the United States, it is critical to explore this group's motivation to succeed in the

classroom, their drives to pursue a postsecondary degree, and how motivation relates to their

academic achievement.

Achievement Motivation

The construct of achievement motivation, also known as need for achievement, is

defined as the drive to improve one's level of performance and the desire to succeed in one's

endeavors (McClelland, 1976). Individuals who are achievement-oriented are more likely to

take risks, undertake innovative and engaging tasks, set precise goals, and have an internal

locus of control. Such individuals are typically driven by a personal sense of accomplishment

rather than the rewards associated with their success (McClelland, 1976). Research on the

structure and correlates of achievement motivation is extensive, and two theories that have

garnered significant empirical attention are self-determination theory and achievement goal theory.

Intrinsic and Extrinsic Motivation

Although motivation is viewed as a universal fuel to performance, individuals tend to vary in their source of inspiration. Self-determination theory (SDT), which aims to explain goal-directed behavior, identifies two general types of motivation - intrinsic and extrinsic. Intrinsic motivation is defined as an inherent interest and personal fulfillment in doing an activity rather than being guided by external consequences (Ryan & Deci, 2000). To illustrate this concept, consider a student who chooses to write daily in her journal about the novels she reads in class. Although this activity is not graded or even seen by her instructor, she chooses to engage in it because she genuinely enjoys writing and wishes to further develop her skill. Her journaling is intrinsically motivated because it brings her an inherent sense of accomplishment, without seeking external praise or reward from her teacher.

On the other side of the motivation continuum is extrinsic motivation, which is marked by an external incentive for doing an activity rather than an internally guided consequence (Ryan & Deci, 2000). For example, consider a student who completes her math homework to avoid a low grade and because she's afraid of not finishing college. In this case, the student chooses to finish her math homework because she is driven by external factors, which are the teacher's potential grade penalty and the fear of not completing her degree. Her decision to do her homework is externally motivated.

Over thirty years of research suggest that there is variability in the performance and quality of experience based on one's source of motivation (Ryan & Deci, 2000). For example, intrinsic motivation has been linked to higher quality of learning, increased

persistence, and positive emotional experiences (Ryan & Brown, 2005). On the other hand, extrinsic motivation has been associated with low quality of learning, decreased persistence, and negative affective experiences. To explain the role of intrinsic and extrinsic motivation in higher education, Kaufman, Agars, and Lopez-Wagner (2008) assessed the role of personality and motivation on early college academic success using an ethnically diverse sample. Their findings revealed that higher levels of intrinsic motivation and lower levels of extrinsic motivation in students were associated with higher academic performance.

Intrinsic motivation has not only been identified as a predictor of academic achievement within higher education institutions in the United States, but it has been recognized cross-culturally as well. For instance, in a study conducted in South Africa, Goodman et al., (2011) investigated the relationship between postsecondary students' internal and external motivation and their academic performance as mediated by effort. The results suggested that there is a direct relationship between student motivation and academic performance, as intrinsic motivation was found to be the strongest predictor of academic performance, followed by effort. Finally, student motivation was not only directly related to academic performance, but it also related to students' effort within the classroom.

While numerous studies have found a significant link between achievement motivation and academic performance, Baker (2004) presents conflicting results. This study analyzed the relationship between motivational orientation, stress, wellbeing, adjustment to university, and the role of motivation in predicting academic achievement in college students. The results indicated that intrinsically motivated students demonstrated lower levels of stress while studying than extrinsically motivated students. Counter to previous findings, intrinsic motivation was not indicative of better psychosocial adjustment to university life or greater

levels of perceived wellbeing. Additionally, no relationship was established between academic achievement and either of the motivational goal orientations. Lastly, it is noteworthy that amotivation, or the complete absence of motivation, was linked to worse psychosocial adjustment to college, higher levels of perceived stress, and poor academic performance.

The contradictory findings regarding the relationship between motivation and academic performance could be explained by the method used to quantify the motivation construct. Achievement motivation is traditionally measured in a dichotomous fashion (intrinsic vs. extrinsic). Lin, McKeachie, and Kim (2001) argue that the construct's components may actually lie on a continuum (low, medium, high). Consistent with previous empirical research, they found that higher levels of intrinsic motivation were linked to higher course grades but that moderate extrinsic motivation coupled with high intrinsic motivation was the best predictor of academic success. This finding suggests that when combined with intrinsic motivation, extrinsic motivation may yield positive academic outcomes. To further understand these differences in achievement motivation, it is essential to take a closer look at its underlying components. The key ingredients that define motivation as internal or external are the different achievement goals that drive an individual to engage in a behavior.

Achievement Goal Theory

Traditional achievement goal theory originated in Dweck and Elliott's (1983) studies of achievement behavior where it was discovered that students of equal abilities respond differently to failure on achievement tasks. They identified two distinct response patterns – mastery and helplessness. Pupils with a mastery response pattern attributed failure to their poor *effort* but were able to maintain or improve their persistence, performance, and positive

affect, and they pursued subsequent challenges. Students with a helplessness response pattern attributed failure to their poor *ability*, showed a significant decrease in persistence and performance, demonstrated negative affect, and avoided subsequent challenges. In light of these conflicting response patterns, Elliott and Dweck (1988) proposed that students with mastery and helplessness response patterns might be driven by different goals. They identified two general goals – performance and learning goals. Students with performance goals exhibit a behavior because of their need to show competence and hide incompetence, whereas students with learning goals engage in a behavior due to their desire to develop competence and mastery. Since Elliott and Dweck's pioneering work, the study of goals in the achievement motivation literature has grown immensely, and a plethora of subsequent research has been conducted. Some researchers have referred to learning goals as task-goals or mastery goals, while performance goals have been labeled alternatively as ego-goals and ability goals (Elliott & Dweck, 1988; Nicholls, 1984). According to Ames and Archer (1988), there was enough convergence between the aforementioned labels to establish two universal categories of achievement goals – mastery and performance.

Empirical research on the achievement goal framework suggests that mastery goals and performance goals have unique effects on students' motivation, interest, and academic achievement (Elliot, 2005). Mastery-oriented individuals are characterized by their desire to *develop* competence, which is associated with positive outcomes such as high self-efficacy, task persistence, preference for challenge, self-guided learning, positive affect, and wellbeing. On the other hand, performance-driven individuals are motivated by their need to *demonstrate* competence, which is related to a maladaptive pattern of cognition, affect, behavior, and surface rather than in-depth learning strategies (Kaplan & Maehr, 2007). In a

longitudinal study, Harackiewicz, Barron, Tauer, Carter, and Elliot (2000) explored the short-term and long-term effects of achievement goals on interest and performance in undergraduate students. The students' achievement goals were measured at the beginning and at the end of the semester. Academic performance and interest were also assessed at the end of the semester. For three semesters after the initial measures, subsequent course choice and academic performance were tracked in the same group of students. Short-term consequences revealed that mastery goals were predictive of interest and enjoyment in the class but did not account for students' academic achievement. On the other hand, performance goals were not predictive of interest and enjoyment but were associated with student academic achievement. When analyzing the long-term effects of goal orientation, mastery goals remained indicative of interest, while performance goals continued to predict academic performance. These findings were echoed in a second longitudinal study in which Harackiewicz, Barron, Tauer, and Elliot (2002) monitored students' interest and performance from freshman year in college through graduation. They demonstrated that mastery-orientated students continued to show interest in their academics through college, as evidenced by the number of courses they took and their choice to declare a major in a certain domain.

To extend the achievement goal literature, Elliot and McGregor (2001) incorporated an approach-avoidance dimension to the general goal-based framework. They proposed that mastery and performance goals can be further explained through distinctions between approach and avoidance behaviors. Their work emphasized how innate drives to seek pleasure and to avoid pain directly influence behavior. Individuals who are approach-driven engage in behaviors because they are motivated by a desirable event or possibility, while individuals who are avoidance-driven engage in behaviors because they are driven to avoid

an undesirable event or possibility (Elliot & McGregor, 2001). Both types of motivation are ultimately dictated by the consequences that may follow one's actions. Using these two dimensions, Elliot and McGregor (2001) proposed the 2x2 framework of the revised goal theory, which includes four distinct achievement goals: mastery-approach, mastery-avoidance, performance-approach, and performance-avoidance. Research indicates that those with a mastery-approach orientation strive to cultivate their skills and abilities, enrich their learning experience, develop an in-depth understanding, and master a task. Individuals with a mastery-avoidance orientation, on the other hand, strive to avoid losing their skills and abilities, abstain from forgetting their learning experience, limit misunderstanding, and avoid not finishing a task (Elliot, 2005). In contrast, students with a performance-approach orientation focus on their relative competence in comparison to others. They view achievement in the context of doing better than others. Pupils with a performance-avoidance orientation focus on their relative incompetence in comparison to others. In this case, achievement is measured in the context of not doing worse than others (Elliot, 2005).

Although the evidence highlighting the positive outcomes associated with mastery goals is clear, the evidence surrounding performance goals is marked by inconsistency (Kaplan & Maehr, 2007). This may be due to the lack of distinction between approach and avoidance in the bulk of the goal literature. Studies that distinguish between performance-approach and performance-avoidance goals demonstrate a difference in the outcomes associated with the two types of goals. In their literature review, Kaplan and Maehr (2007) indicated that performance-avoidance goals have been associated with negative outcomes including low self-efficacy, anxiety, avoiding seeking help, self-handicapping strategies, and poor academic performance. On the other hand, performance-approach goals have been

linked to positive outcomes such as persistence, positive affect, and better academic performance. In the aforementioned longitudinal study, Harackiewicz, et al. (2002) found that students who were performance-oriented throughout college did not demonstrate interest in their academics, but they performed better academically, as evidenced by their higher GPA.

Harackiewicz et al. (2000) proposed that performance-approach may have positive correlates not previously considered. They point out that performance-approach goals share a positive relationship with a number of adaptive variables including task value, academic self-concept, effort expenditure, and performance attainment. Lastly, it should be noted that the best processes and outcomes are evident in students who simultaneously hold high mastery *and* high performance goals (Elliot, 2005; Harackiewicz et al., 2000). Due to the mixed evidence surrounding mastery and performance goals in traditional achievement goal theory, further research using the revised goal theory is needed. Furthermore, exploration of other motivational constructs may be warranted to develop a comprehensive picture of student motivation in the classroom.

Student Motivations For Attending College

Achievement goals and external and internal motivation capture students' reasons and behaviors for being successful in the classroom; however, perhaps a more global understanding is needed to grasp why individuals pursue a college education to begin with. The literature often emphasizes an institutional perspective on why higher education is essential, but there are relatively few studies that explore what drives students to pursue a higher education. In order for students to have a relevant and engaging experience in the

college classroom, further research is needed to explain another form of motivation –

students' reasons for attending college.

       The reasons why students attend an undergraduate institution can be separated into

two broad categories – internal (e.g., self-growth and the challenge) and external (e.g.,

securing a future career and family obligations). In a study with first-generation students and

traditional students at a four-year university, Bui (2002) discovered that the most popular

internal reasons for obtaining a college degree among students were a liking for learning or

studying and to gain one's independence. The most common external reasons for pursuing an

undergraduate degree were linked to parental expectations to attend college, a need of a

degree for a future career, a need of a degree for better income, respect or status associated

with a degree, to bring honor to one's family, to help out one's family after graduation, to

provide a better life for one's children and to acquire the necessary skills to be function

effectively in society. Despite the contributions of this study, it limited students to rating their

reasons for attending college using a 16-item scale. Of the 16 items, only five reasons were

internal, while the other nine were external. Furthermore, it is unclear if the motivation

inventory was developed using students' reasons for attending college or if it was constructed

based on the researcher's intuition. Bui (2002)'s survey may capture some of the reasons

why students go to college, but an open-ended questionnaire could provide a more extensive

list of factors with a balance between external and internal reasons. In a more recent study,

Kennett, Reed, and Lam (2011) took a different approach in exploring the construct by

directly asking students to list all their reasons for pursuing an undergraduate degree.

Students reported both internal and external reasons for attending college. The most common

internal reasons related to self-improvement and achieving life goals, while the most

common external reasons pertained to family and solidifying a future career. By utilizing an open-ended questionnaire method as opposed to a contrived inventory, the researchers obtained a more comprehensive, balanced list of internal and external motivations for attending postsecondary institutions.

There are a limited number of studies that assess student motivation for attending college using both theoretical perspectives and direct student input. Côté and Levine (1997) classified students' reasons for attending college by constructing a scale that identified five motivation domains, which included career, personal, humanitarian, expectation-driven, and default goals. The career domain was related to one's obtainment of a good job, success, and financial rewards. Personal goals were characterized by the development of oneself personally or intellectually. The humanitarian goals embodied helping others or improving the world. The expectation-driven domain included meeting the expectations of others, and the default domain involved avoiding less desirable options than attending college. Côté and Levine (1997) emphasized that personal, career, and humanitarian goals result in the most favorable student outcomes (i.e., self-motivation, better self-management, higher grades), while default goals are often related to negative outcomes (i.e., lower self-motivation and grades). It is noteworthy that students who are driven by personal goals in college may later become a significant asset to the workplace through their commitment to their own improvement and that of others. Understanding the relationship between students' motivations for pursuing a college degree and their motives for engaging in academic tasks the classroom (i.e., achievement motivation goals, intrinsic and extrinsic motivation) paints a comprehensive model of students' motivation to succeed in postsecondary institutions.

Ethnicity and Motivation

Past studies have analyzed motivation using predominantly Non-Hispanic White samples, ultimately overlooking ethnically diverse students, or assuming that the experiences of diverse students are identical to those of Non-Hispanic White students. According to the National Center for Educational Statistics (2004), ethnic minority youth are less likely to enroll, attend, and obtain an undergraduate degree in comparison to Non-Hispanic White individuals. Given these findings, ethnic differences in achievement motivation in undergraduate students should be thoroughly explored. To better understand the role of ethnicity, it is essential to address the unique experiences of students of color. In their review of race and ethnicity's role in motivational processes, Graham and Hudley (2005) point to four influential factors: discrimination, stereotypes, ethnic identity, and the immigrant experience.

Despite the advances in civil equality within the United States, discrimination continues to affect ethnic minorities in all aspects of life. The sphere of education is no exception. Discrimination can significantly threaten the motivation of people of color. When one is treated poorly because of their membership in a particular group, they may experience feelings of hopelessness and give up when faced with a challenge (Graham & Hudley, 2005). In addition, discrimination may negatively impact students' academic outcomes and may lead to academic disengagement within the classroom (Wong, Eccles, & Sameroff, 2003). In their study of perceived racial and ethnic discrimination at school, Dotterer and Lowe (2015) conclude that racial and ethnic minority youth who experience discrimination are more likely to display lower levels of academic motivation and school engagement. As a result, the risk

of academic failure increases, and the achievement gap between minority students and their non-minority peers widens.

Another risk factor ethnic minorities face is stereotyping. Graham and Hudley (2005) identify stereotypes as "culturally shared beliefs, both positive and negative, about the characteristics and behaviors of particular groups" (p. 396). These beliefs pose a risk of undermining ethnically diverse students' motivation by fueling a stereotype threat (ST) state of mind. This construct refers to the awareness of the existent stereotypes associated with one's group (Steele, 1997). According to Thoman, Smith, Brown, Chase, & Lee (2013)'s Motivational Experiences Model of Stereotype Threat, ST has a direct impact on motivational constructs related to educational and achievement pursuits. Specifically, ST results in the adoption of performance-avoidance goals, where students focus on their relative incompetence in comparison to others, and they measure their achievement in the context of not doing worse than others. Adoption of such goals has been known for its negative effect on motivation, interest, availability of cognitive resources, and academic performance.

It has been proposed that motivation may be moderated by one's ethnic identity, as well. Ethnic identity refers to the extent an individual identifies with a certain ethnic group. Conflicting hypotheses about the relationship between ethnic identity and the pursuit of achievement indicate that one's identity may serve as a risk factor or as a protective factor in their educational experience. Ecological theorists propose that striving toward academic achievement may threaten ethnicity affiliation, while contemporary researchers argue that a strong ethnic identity may be an indicator of successful academic outcomes (Graham & Hudley, 2005). According to cultural ecological theory, some of the reasons behind school failure among ethnic minority students are mistrust, oppositional identity, and peer pressure

not to "act white" (Ogbu & Simons, 1998). However, our understanding of the relationship between ethnic identity and achievement motivation is underdeveloped, and further research is needed to unveil the mechanisms behind this relationship.

Another factor that impacts racially and ethnically diverse students' motivation in the classroom is immigration. Family socialization and obligation play a key role in the motivation of immigrant youth. Parental emphasis on hard work and the necessity of quality education have been linked to increased achievement strivings in children. For example, Asian and Hispanic youth who demonstrate higher academic performance also report higher parental expectations and aspirations in relation to their educational attainment. In addition, family obligation has also been indicated as an influential factor in achievement strivings (Graham & Hudley, 2005). That is, it is common for immigrant youth to believe they owe it to their family to perform well in school, which may be a source of external motivation.

Discrimination, stereotypes, ethnic identity, and the immigrant experience are all variables that mediate ethnicity's impact on the motivational experiences of diverse students. To gain further understanding about these factors' influence on students' achievement strivings, it is necessary to explore the relationship between ethnicity and student motivation. D'Lima, Winsler, and Kitsantas (2014) analyzed the relationship between ethnicity and academic motivation and performance in first-year college students over the course of a semester. In the beginning of the semester, African American and Caucasian students demonstrated higher levels of self-efficacy than Asian American students; however, as the semester progressed, the ethnic groups maintained similar levels of self-efficacy. In the beginning of the semester, African American and Asian American students were more extrinsically motivated than Caucasian students, but by the end of the semester, all ethnic

groups showed similar extrinsic motivation levels. Initially, all ethnic groups demonstrated similar performance-approach levels, but by the end of the semester, African and Asian American students presented a significant increase in their performance-approach orientation in comparison to Caucasian students. Additionally, no performance-avoidance ethnic differences were present in the beginning of the semester, but by its end, African and Asian American students became more performance-avoidance oriented than Caucasian students. Although there were no ethnic differences in academic performance, as a whole, performance goal orientations had a negative relationship with GPA whereas mastery orientation, intrinsic, and extrinsic motivation had a positive relationship with academic performance. It is noteworthy that these findings conflict with achievement goal theory's notion that performance orientations, rather than mastery orientations, are often associated with high academic achievement. D'Lima, Winsler, and Kitsantas (2014) point out that this may be due to the indirect relationship between mastery goal orientation and academic performance, which may be influenced by other motivational variables. Additionally, they highlight that performance goals have had a number of different definitions, which may explain the inconsistency within the literature. As a whole, this contradiction supports the idea that achievement goal theory literature is comprised of mixed evidence, and further research is needed to clarify the relationship of goal orientation and academic achievement.

Hispanic Motivation

　　　　Much research has demonstrated a positive relationship between achievement motivation and academic performance; however, literature analyzing this relationship in Hispanic students is scarce. The few studies that have explored motivation in this group have predominantly focused on elementary, middle, and high school populations (Close &

Solberg, 2008; Niehaus, Rudasill, & Adelson, 2011; Schultz, 1993). At the elementary school

level, Schultz (1993) analyzed the relationship between parent income, achievement

motivation, and academic performance in African-American and Hispanic students. Their

findings indicated that achievement motivation and parent income had a significant impact

on minority students' school performance in reading and math. It was noted that students

whose parents had higher incomes had higher achievement scores than students from more

disadvantaged backgrounds. However, analyzing the impact of parent income in isolation is

insufficient in explaining minority students' academic performance. Schultz (1993) furthered

their research by exploring achievement motivation. Interestingly, it was noted that students'

motivation was also a critical factor in minority students' likelihood to perform closer to their

measured intellectual ability. Specifically, students with higher levels of achievement

motivation performed closer to their cognitive ability level than those who displayed lower

levels of achievement motivation. These conclusions further reinforce the need for research

on the underlying motivational processes that impact academic performance in minority

students, especially that of Hispanic students, who are at the greatest risk of academic

underachievement.

Niehaus et al., (2011) contributed to the literature by exploring the relationship

between self-efficacy, motivational orientation, after-school program participation, and

achievement in Hispanic middle school students. A longitudinal design was utilized in

examining how students' self-efficacy and motivation changed over the course of a year.

Their results suggested that intrinsic motivation was the best predictor of students' academic

achievement, as evidenced by their GPA. Hispanic students who were more intrinsically

motivated than their peers were more successful in school. They were more likely to embrace

challenges, enjoy learning, and aim to master their classes' content. Additionally, Niehaus et al., (2011) pointed out that students' self-efficacy and intrinsic motivation remained stable over the course of the year. It is noteworthy that intrinsic motivation was not a significant predictor of Hispanic students' performance on standardized tests, which could imply that achievement motivation is more related students' success in the classroom rather than on standardized tests.

At the high school level, Close and Solberg (2008) proposed a model consistent with social cognitive and self-determination theories that aimed to explain school success by looking at the relationship between motivation, relatedness, self-efficacy, achievement, and distress in predominantly Hispanic ninth and tenth-grade students. In regard to student motivation, their findings revealed that students who possessed an autonomous, or intrinsic, motivation style demonstrated higher levels of achievement. On the other hand, students with a controlled, or extrinsic, motivation style had lower achievement and reported higher levels of distress in school. Hispanic motivation can also be explored using Elliot and McGregor's (2001) 2×2 model of achievement motivation. In a longitudinal study, Wilkins and Kuperminc (2010) demonstrated that, as Hispanic students transitioned from middle school to high school, they reported an increase in mastery-approach achievement motivation, which is often linked to positive educational outcomes. In contrast, mastery-avoidance achievement goals in Hispanic adolescents were linked to poor school performance. Counter to prior research with Caucasian students, performance-avoidance achievement goals have not been significantly associated with school performance in Hispanic students (Wilkins & Kuperminc, 2010).

While these findings elucidate Hispanic students' motivation to succeed in the K-12 environment, they cannot be extrapolated to the higher education setting without evidentiary support. To this end, there are limited studies that include college-aged Hispanic students in their study of achievement motivation. Próspero, Russell, and Vohra-Gupta (2012) explored differences in educational motivation (i.e., intrinsic motivation, extrinsic motivation, and amotivation) between Hispanic and non-Hispanic first-generation college and high school students. As a whole, Hispanic first-generation students were more intrinsically motivated than Non-Hispanic first-generation students. Additionally, higher amotivation and extrinsic motivation were linked to lower GPAs in all students (Próspero et al., 2012). In a study with college students, Strage (1999) evaluated how Non-Hispanic Whites, Asians, and Hispanics differed in their profiles of academic achievement and achievement motivation. Their results demonstrated that Non-Hispanic White students earned significantly better grades than Hispanic and Asian students. Both Hispanic and Non-Hispanic White students who were faced with academic difficulties persisted more, demonstrated higher levels of focus, engagement, and a greater involvement in their academics than Asian students.

The aforementioned studies evaluated motivation to succeed within the classroom; however, they failed to pay attention to Hispanic students' reasons for attending a university in the first place. Understanding Hispanic motivations for obtaining a college degree may be of great importance, given this group's academic underachievement and significantly lower graduation rates compared to other ethnicities (Kena, et.al, 2015). To our knowledge, there has been only one study that has analyzed the reasons why ethnically diverse individuals go to college. Phinney, Dennis and Osorio (2006) furthered Côté and Levine (1997)'s work by revising the original student motivation measure to more reliably assess the reasons that

influence ethnically diverse youth's decision to attend college. They accomplished this through conducting focus group discussions where Latino, African American and Asian students shared their motivation for attending an undergraduate institution. The focus groups revealed that ethnic minorities' decisions to attend college might be influenced by cultural factors that were not considered in Côté and Levine's (1997) study. In addition to the previously discussed reasons, ethnically-diverse students chose to go to college to help their families financially, because they received encouragement, and because they wished to prove that they were able to do it. Furthermore, it was deduced that family interdependence and ethnic identity contributed to the reasons why Latino, African American, and Asian students chose to go to an undergraduate institution; however, such factors did not affect Caucasian students' reasons for college attendance.

The achievement motivation literature has primarily focused on why students engage in academic tasks, but it has failed to explore students' long-term goals such as their purpose for attending an undergraduate institution in the first place. The distinction between individuals' purposes for attending college must be considered because it may influence the overall satisfaction with attending a university, retention, achievement motivation, and ultimately academic performance. In addition, there is a scarcity of empirical findings on this topic within ethnic minority populations, especially in Hispanic groups. Therefore, research is needed to understand ethnically diverse students' motivations for attending college and how these drives are related to achievement motivation and academic performance.

The Current Study

Given the trends of increasing diversity in the United States, a necessity for higher education, and the evident paucity of Hispanic student representation in motivation research,

the primary purpose of this study was to examine Hispanic differences in achievement motivation. In particular, the study assessed how motivational factors (i.e., achievement goals and extrinsic/intrinsic motivation) and reasons for attending college relate to academic performance in Hispanic versus Non-Hispanic White undergraduates. The following research questions were explored:

1. Are there ethnic group differences in achievement goals and in intrinsic and extrinsic motivation?

2. Are there ethnic group differences in students' motivations for attending a higher education institution?

 3. How does achievement motivation relate to academic performance, and does this relationship vary by ethnicity?

4. How does achievement motivation relate to students' motivation for attending college, and does this relationship vary by ethnicity?

Based on the previously discussed research, I hypothesized that Hispanic students would be more intrinsically motivated than Non-Hispanic White students. Second, I expected Hispanics' decision to attend college to be more influenced by their desire to help their family and to prove their worth to others in comparison to Non-Hispanic Whites. Third, I predicted intrinsic motivation, extrinsic motivation, and all achievement goals with the exception of performance-avoidance would be positively related to academic performance. Lastly, I hypothesized intrinsic motivation will be positively related to internal purpose beliefs about higher education, while extrinsic motivation will be related to external purpose beliefs about higher education. Given the limited empirical findings, it was impossible to make a directional hypothesis about the effects of ethnicity on the link between achievement

motivation and academic performance and on the link between achievement motivation and motivations for attending college, but these relationships were explored in the current study.

Method

Participants

The total sample of the study consisted of 180 college student participants (42.2% female; mean age = 22.4) from universities across the United States. Participants included 4.4% freshmen, 23.9% sophomores, 36.1% juniors, and 35.6% seniors. In terms of ethnicity, the students identified as Non-Hispanic White (n = 87, 48.3%) and Hispanic students (n = 93, 51.7%). Pa Additional demographic information is presented in Table 1. Participants were recruited through Amazon Mechanical Turk (MTurk), an increasingly popular tool for participant recruitment and data collection (Buhrmester, Kwang, & Gosling, 2011). On average, MTurkers are paid between 1 cent and 10 cents per test. While studies with a greater financial incentive were found to draw in more MTurkers, there was no significant increase in the quality of work performed by participants (Mason & Watts, 2009). Therefore, volunteers for the present study were compensated with 50 cents for their involvement in the study.

Measures

Demographic questionnaire. Participants completed a demographic questionnaire, inquiring about their age, gender, ethnicity, educational level, current GPA, and yearly total family income (See Appendix A).

Motivated strategies for learning questionnaire (MSLQ). The MSLQ was used to assess participants' intrinsic and extrinsic motivation (Pintrich, Smith, Garcia, & McKeachie, 1991). The questionnaire is comprised of 15 subscales, which measure motivation and

learning strategies. For the purposes of this study, only the intrinsic and extrinsic goal orientation subscales were administered. Each subscale contains 4 items, which can be rated on a 7-point scale (1 = *not at all true of me* and 7 = *very true of me*). For example, an item targeting intrinsic goal orientation is, "I prefer course material that really challenges me so I can learn new things," while an item addressing extrinsic goal orientation is "Getting a good grade is the most satisfying thing for me right now." D'Lima et al. (2014) indicated acceptable levels of internal consistency for intrinsic motivation and extrinsic motivation with a Cronbach's alpha of .67 and .71, respectively. See Appendix B for the full list of questions.

Achievement goal questionnaire-revised (AGQ-R). The AGQ-R was used to measure participants' achievement goal orientation (Elliot & Murayama, 2008). The instrument contains 12 items, which require respondents to rate them on a 5-point scale (1 = *strongly disagree* and 5 = *strongly agree*). Three items address each of the four goal orientations. Sample items include "My aim is to completely master the material presented in this class" (mastery-approach), "I am striving to avoid an incomplete understanding of the course material" (mastery-avoidance), "My goal is to perform better than the other students" (performance-approach), and "I am striving to avoid performing worse than others" (performance-avoidance). Phan (2013) reported high levels of internal consistency for all four subscales of mastery-approach, mastery-avoidance, performance-approach, and performance-avoidance goals with Cronbach's alphas of .95, .96, .92, and .95, respectively. See Appendix C for the full list of questions.

Student motivation for attending university (SMAU) – revised. The SMAU-Revised was used to assess participants' motivations for attending college (Phinney, Dennis,

& Osorio, 2006). The measure comprises 33 items across seven subscales, and items can be judged on a 5-point scale (1 = *strongly agree* and 5 = *strongly disagree*). The seven subscales assess potential motivations for attending college, including career/personal, humanitarian, default, expectations, prove worth, encouragement, and help family. For instance, an item assessing career/personal beliefs is "To improve my intellectual capacity," whereas an item assessing a motivation to help one's family is "To get an education in order to help my parents/family financially." Custode and Norvilitis (2012) reported that reliability was generally good, but it varied between the career/personal, humanitarian, default, expectations, prove worth, encouragement, and help family subscales with a Cronbach's alpha of .76, .80, .71, .83, .85, .75, and .78, respectively. See Appendix D for the full list of questions.

Procedure

Each testing session lasted approximately ten minutes and was completed online through MTurk during the Spring semester of 2016. Following confirmation of consent, participants answered a demographic questionnaire, the Achievement Goal Questionnaire-Revised, Motivated Strategies for Learning Questionnaire-Revised, and the Motivated Strategies for Learning Questionnaire, and the Student Motivation for Attending University (SMAU) – revised. Lastly, the respondents were compensated for their participation in the study. The Institutional Review Board at Appalachian State University approved all procedures within this study: IRB# 14-0023.

Results

Descriptive Analyses

The means and standard deviations of each achievement motivation variable by ethnicity are presented in Table 2, and bivariate correlations among study variables are depicted in Table 3. Independent samples t-tests indicated no significant differences by ethnicity on any of the achievement motivation measures (i.e., the four achievement goal orientations and intrinsic and extrinsic motivation).

Participants' motivations for attending a higher education institution by ethnicity can be found in Table 4. There was a significant ethnic group difference in the encouragement domain, $t(178) = 3.09$, $p = .002$. Specifically, Hispanic students were more likely to indicate encouragement as one of the reasons why they chose to attend a higher education institution in comparison to Non-Hispanic White students. No other significant ethnicity differences were found in the motivations for attending college (all p's > .05).

Regression Analyses

Academic performance. In order to predict variability in academic performance using achievement motivation, a hierarchical linear regression was used with ethnicity serving as a covariate. The results indicated that neither ethnicity nor achievement motivation explained significant variance in student academic performance (See Table 5).

Student motivations for attending college. To examine the role of achievement motivation in student motivations for attending a university, a hierarchical linear regression with ethnicity as a covariate was utilized. The contributions were explored by subscale (See Table 6).

Career or personal motivations. Achievement motivation significantly explained variability in students' career or personal motivation, $F(7,172) = 26.41$, $p = .000$, $R^2 = .518$. Mastery-approach goals, $\beta = .29$, $t(179) = 3.92$, $p = .000$, intrinsic motivation, $\beta = .23$, $t(179) = 3.31$, $p = .001$, and extrinsic motivation, $\beta = .30$, $t(179) = 4.01$, $p = .000$, had a significant positive relationship with students' career or personal beliefs about higher education. No ethnic differences were observed.

Humanitarian motivations. Students' achievement motivation was able to significantly predict humanitarian motivation for attending a university, $F(7,172) = 5.26$, $p = .000$, $R^2 = .176$. Specifically, intrinsic motivation had a significant positive relationship with the humanitarian domain of beliefs about higher education, $\beta = .33$, $t(179) = 3.56$, $p = .000$. There were no ethnic differences between Hispanic and Non-Hispanic White participants.

Default motivations. Results demonstrate that achievement motivation predicted the variation in students' default college motivation, $F(7,172) = 2.66$, $p = .012$, $R^2 = .098$. The mastery-avoidance goal orientation was positively related with the default domain of beliefs about higher education, $\beta = .24$, $t(179) = 2.01$, $p = .046$. No ethnic differences were observed.

Expectation motivations. Achievement motivation was able to significantly explain variability in students' motivation for attending college, $F(7,172) = 3.68$, $p = .001$, $R^2 = .130$. Extrinsic motivation had a significant positive relationship with the expectation domain of beliefs about higher education, $\beta = .23$, $t(179) = 2.38$, $p = .018$. There were no ethnic differences between Hispanic and Non-Hispanic White participants.

Prove worth motivations. The achievement motivation model significantly explained variability in students' prove worth motivation for college, $F(7,172) = 3.57$, $p = .001$, $R^2 = .091$. Only the performance-avoidance goal orientation was found to have a significant

positive relationship with the prove worth domain of beliefs about higher education, $\beta = .27$, $t(179) = 2.09$, $p = .038$. All other achievement motivation variables were unable to significantly predict the prove worth motivation ($p > .05$). This relationship could not be explained by students' ethnicity.

Encouragement motivations. The results revealed that student achievement motivation significantly predicted encouragement motivation for attending college, $F(1,178) = 9.55$, $p = .002$, $R^2 = .051$ and $F(7,172) = 6.58$, $p = .000$, $R^2 = .211$, respectively. The mastery-approach goal orientation had a significant positive association with encouragement motivation about higher education, $\beta = .20$, $t(179) = 2.13$, $p = .035$. Furthermore, no ethnic differences were observed. Ethnicity was positively related to the encouragement motivation about higher education, $\beta = .20$, $t(179) = 2.84$, $p = .005$. Specifically, Hispanic students were more likely to attend college because someone encouraged them to do so than Non-Hispanic White students.

Help family motivations. Achievement motivation significantly explained variance in students' help family college motivation, $F(7,172) = 5.21$, $p = .000$, $R^2 = .175$. No individual achievement motivation goals were found to significantly predict students' help family motivations; however, they were determined to be on the verge of significance. Specifically, students' desire to attend college to help their family is best quantified by the combination of the different achievement goals as a whole, rather than by any single motivational orientation. In order to further understand this finding, the set of motivation variables was analyzed for multicollinearity. Variables with significant multicollinearity (i.e., VIF > 3) were removed from the analysis; however, the same pattern of significance remained. To this end, no changes were made to the original analysis plan. Additionally, there were no ethnic

differences between Hispanic and Non-Hispanic White participants.

Discussion

The present study explored how achievement motivation and reasons for attending college relate to academic performance in Hispanic undergraduate students. I examined ethnic group differences in achievement motivation goals (i.e., mastery-approach, mastery-avoidance, performance-approach, and performance-avoidance) and intrinsic and extrinsic motivation. I also assessed if Hispanic students and Non-Hispanic White students vary in their motivations for attending college. Next, the study examined the effects of ethnicity on the relationship between achievement motivation and academic performance. Lastly, I explored how achievement motivation relates to reasons for attending college and if that relationship varied by ethnicity.

Overall, the study's findings suggest there were no ethnic differences in students' achievement motivation or reasons for attending college. An exception to this result involved encouragement motivation. Specifically, the importance of encouragement from others to attend college varied significantly across students of different ethnicities. In particular, Hispanic students were more likely than Non-Hispanic, White students to report encouragement as a motivation for college attendance. In general, neither achievement motivation nor ethnicity was able to explain variability in students' academic performance. In relation to reasons for attending college, achievement motivation significantly explained variance across the different types of motivations; however, for the most part, there were no ethnic differences between Hispanic and Non-Hispanic White participants. Each of these findings is discussed in further detail in the sections below, along with limitations of the results, proposed implications, and future directions for research.

Ethnicity, Achievement Motivation, and Motivations for Attending College

The first aim of the study was to examine the existence of ethnic differences in achievement goal orientations and in intrinsic and extrinsic motivation between Non-Hispanic White and Hispanic college students. Based on prior research, it was hypothesized that Hispanic students would be more intrinsically motivated than Non-Hispanic White students. Due to a lack of empirical findings, no other directional predictions were made. Contrary to the study's hypothesis, no ethnic differences were found in students' achievement motivation. This finding is inconsistent with Próspero et al.'s (2012) study with high school and college first generation students, which suggested that Hispanic college students are more intrinsically motivated than Non-Hispanic White college students. It is possible that higher levels of intrinsic motivation reflect the motivation orientation of first generation Hispanic college students, rather than that of the Hispanic college population as a whole. However, given the scarcity of empirical findings surrounding this group, more research is needed to support this claim.

In their review of race and ethnicity's role in motivation and competence, Graham and Hudley (2005) state that understanding diverse learners' motivation is dependent "not so much on ethnicity per se, but rather on ethnicity within a certain context." This is congruent with Ames's (1992) proposal that the achievement goals students adopt might be influenced by the messages set forth by their instructor and the classroom environment as a whole. Therefore, a professor who enforces mastery goal structures in their classroom may have a more significant impact on a student's desire to succeed in the classroom than the student's fixed ethnicity. Furthermore, classroom goal structures research suggests there is a positive relationship between classroom goals and personal goals. Urdan & Midgley (2003)

demonstrated that when learners perceive mastery goal structures in the classroom, they are more likely to adopt personal mastery goals. This could propose a powerful solution for fostering achievement motivation in the college classroom for learners from varied ethnical backgrounds. However, further research is needed to assess the effect of instructors' classroom goal structures on ethnically diverse learners.

The current study also explored the effects of ethnicity on students' motivations for attending a higher education institution. It was hypothesized that Hispanic students' motivation for enrolling in college would be more influenced by the need to help their families and to prove themselves to others than would that of Non-Hispanic White students. The results of the study were inconsistent with this prediction. Counter to Phinney, Dennis, and Osorio's (2006) conclusions, "help family" and "prove worth" were found to be equally important factors to both ethnicities. This suggests that Hispanic and Non-Hispanic White students may have more in common in relation to their decision to attend college than was previously believed. However, it should be noted that the two groups varied significantly in the importance they placed on the encouragement of others as a reason for attending college. Out of the two groups, Hispanic students were more likely to enroll in an undergraduate institution because of the encouragement of a mentor or someone who believed they could succeed.

Achievement Motivation and Academic Performance

The next aim of the study was to explore the moderating effects of ethnicity on the relationship between student achievement motivation and academic performance. The present findings revealed that student ethnicity and achievement motivation were unable to predict estimated college GPA. While surprising at first, this outcome could be explained by

the present sample's composition. The results revealed a high-achieving group of Hispanic undergraduate students who endorsed high levels of achievement motivation. Contrary to the student characteristics in the present sample, research indicates that Hispanic students are at a greater risk for academic underachievement and not graduating from college (Hemphill &Vanneman, 2011; Kena, et. al, 2015). As such, it does not appear the current sample represents such at-risk students, so restriction of range may be impacting the study's findings.

Another explanation for the present results could be the lack of consensus surrounding the role of achievement motivation in student learning outcomes, such as academic performance. There is emerging evidence indicating that achievement motivation may not be as significant of a factor in the prediction of academic achievement as was previously proposed. In Huang's (2012) meta-analysis of the discriminant and criterion-related validity of achievement goals in predicting academic achievement, it is noted that the magnitude and direction of correlations between these two constructs is inconclusive. The study consisted of 52,986 participants across 151 studies assessing the relationship between achievement motivation goals and academic achievement. Overall, the results revealed that achievement motivation alone did not explain a significant amount of variance in academic achievement. This was evidenced by low, or in some cases, non-existent correlation between different achievement motivation orientations and academic achievement. Huang (2012) also examined the effect of ethnicity as a moderator on the relationship between achievement motivation goals and academic achievement. Consistent with the present study's findings, participants' ethnicity did not affect the criterion validity of achievement motivation in explaining variance in academic achievement. These results are especially relevant to

instructors in higher education, who encourage their students to adopt specific achievement

motivation orientations in hopes of influencing academic achievement. Future researchers are

urged to explore other factors that may be more beneficial in elucidating our understanding

of students' academic achievement in college.

Achievement Motivation and Motivations for Attending College

The final aim of the study was to evaluate how student achievement motivation

relates to the desire to attend college and if ethnic differences exist. In sum, achievement

motivation explained significant variance in students' reasons for attending college; however,

most relationships did not vary in accordance with ethnicity. The exception to this finding

was apparent in students who held encouragement reasons for attending college. Specifically,

one's ethnicity and achievement motivation orientation were equally effective at predicting

students' desire to attend college when they held encouragement beliefs. The specific

relationships between students' achievement motivation, ethnicity, and their reasons for

attending college are discussed in further detail below.

Career or personal motivations. Achievement motivation explained variance in

students' career or personal motivations for attending university. The current study

demonstrated that mastery-approach goals, intrinsic motivation, and extrinsic motivation are

positively related to students' career or personal reasons for pursuing higher education. These

findings fully support the study's hypothesis that intrinsic motivation is positively related to

internal purpose beliefs about higher education, whereas extrinsic motivation is positively

related to extrinsic purpose beliefs about higher education. Students who are motivated by

external incentives may wish to attend college to obtain a good job, be successful, and be

financially rewarded, while those guided by internal rewards may pursue a college education

to better themselves on a personal and intellectual level. Additionally, these findings extend the motivation literature by exploring the role of achievement goal orientation in predicting reasons for attending college. The findings revealed that mastery-approach oriented individuals may be more likely to attend college due to a career or personal reason. As noted earlier, mastery-oriented individuals are concerned with developing in depth understanding and developing abilities, which could in turn predict their career or personal drive for pursuing a higher education. There were no ethnic differences between Hispanic and Non-Hispanic White participants.

Humanitarian motivations. Achievement motivation was able to predict students' humanitarian reasons for attending college. Specifically, the present findings suggest that students who are intrinsically motivated are likely to attend college because they wish to help people or improve the world. This supports the study's hypothesis that intrinsic motivation is positively related to internal purpose beliefs about higher education. Given this association, students who attend college to help others and better the world are likely to experience similar positive outcomes that accompany intrinsic motivation, such as higher quality of learning, increased persistence, and positive emotional experiences (Ryan & Brown, 2005). Student ethnicity was unable to explain the observed variability in humanitarian motivation for attending college.

Default motivations. Students' achievement motivation orientation explained differences in default reasons for attending college. The current study indicates that there is a positive relationship between mastery-avoidance goals and default reasons for attending college. Students who are motivated by avoiding the loss of their skills and abilities are more likely to attend college because they lack better alternatives. This is particularly alarming, as

students who hold default reasons for attending college often have lower levels of self-efficacy, college commitment and confidence in the ability to accomplish degree goals (Phinney, Dennis, & Osorio, 2006). Furthermore, Côté and Levine (1997) point out that default reasons put students at risk for poorer academic skills and lower grades. However, this relationship could not be explained by ethnicity.

Expectation motivations. Achievement motivation was able to predict students' expectation reasons for attending college. Specifically, there was a positive association between extrinsic motivation and expectation motivation for attending college, which is consistent with the study's predictions. This implies that students who are motivated to succeed by external incentives, such as grades or financial rewards, are also likely to attend college because they are expected to do so by external agents, such as family, friends, or society. It is possible that students who attend college due to others' expectations may experience some of the negative outcomes associated with extrinsic motivation, including lower quality of learning, decreased persistence, and negative affective experiences (Ryan & Brown, 2005). Furthermore, pursuing a college degree because of others' expectations results in unnecessary stress for students and is unrelated to academic adjustment (Côté & Levine, 1997; Phinney, Dennis, & Osorio, 2006). Finally, the association between achievement motivation and expectation reasons for attending college did not vary by student ethnicity.

Prove worth motivations. Students' achievement motivation explained differences in the prove worth reason for attending college. Specifically, there was a positive relationship between the performance-avoidance goal orientation and prove worth motivations. This finding suggests that students who choose to attend college to prove to others they are capable of doing so are likely driven to succeed by avoiding appearing incompetent in front

of others. Students who attend college to prove their worth often receive messages stating

they are incapable of earning college degrees and should begin work after high school

instead. Phinney, Dennis, and Osorio (2006) note that this phenomenon is more common

among ethnic minority students, such as Hispanics. However, the present study suggests that

attending college to prove others wrong is equally common between Hispanic and Non-

Hispanic White individuals. Furthermore, the relationship among prove worth motivations

for attending college and performance-avoidance goals is particularly alarming given the

multitude of negative outcomes associated with adopting performance-avoidance goals in the

higher education classroom. Such outcomes include low self-efficacy, anxiety, avoiding

seeking help, self-handicapping strategies, and poor academic performance (Kaplan and

Maehr, 2007). Therefore, students whose reason for attending college is to prove their self-

worth may be at risk for a number of factors, which can negatively impact their college

experience.

   Encouragement motivations. Achievement motivation and ethnicity are both

significant predictors of students' encouragement reasons for attending college. It was

revealed that students from an ethnic minority background, in this case Hispanic students, are

more likely to attend college than Non-Hispanic White students because a particular mentor

encouraged them to do so. Also, the present findings suggest that students who attend college

because of the encouragement of others are likely to hold mastery-approach goals in the

classroom. As mentioned before, students who are mastery-approach oriented strive to enrich

their learning experience and develop in-depth understanding in the classroom (Elliot, 2005).

Therefore, students who hold encouragement purpose beliefs are likely to benefit from the

positive education outcomes associated with mastery-approach goals, such as sustained

interest and motivation in one's academics (Harackiewicz, et.al., 2000). Sustaining interest in one's academics throughout college may be of even greater importance to ethnic minority populations who are already at a greater risk of not completing college.

Help family motivations. Students' achievement motivation orientation explained variance in the desire to attend college to help family. Interestingly, no single achievement motivation goal significantly related to students' help family reasons for attending college. Rather, students' overall drive for achievement was associated with their desire to attend college to help their parents or family financially. Students' ethnicity did not explain the variance in the help family college motivation. It should be noted that this finding counters Phinney, Dennis, and Osorio (2006)'s results that ethnic minority students are more likely to consider helping their family as a more important reason to attend college than Non-Hispanic White students. However, this finding was likely influenced by socioeconomic variability, as students from low-income backgrounds were more likely to attend college to help their families than those from a middle-class income background.

Limitations

Apart from the contributions of the present study there were several notable limitations. First, the study's sample was composed of high achieving college undergraduates with high achievement motivation orientations. Student GPA was fairly normally distributed with a range of 1.70 and a mean of 3.48. These findings imply that the full range of GPAs was not represented within the current sample, which could have resulted in a restricted range of scores. In turn, the limited variability in students' academic performance could explain the lack of association with either ethnicity or achievement motivation. Furthermore, there was not an equal representation of all college levels, as there were more juniors and

seniors than there were freshman and sophomores. As such, it is possible that the present

findings cannot be generalized to younger college students. Second, participants were

recruited through MTurk, which could have introduced some unique biases. It is possible that

some participants engaged in habitual responding, ultimately posing a threat to external

validity. Furthermore, since the questionnaires were completed online in the absence of

investigator, there is no certainty that the responders were a true representation of the desired

ethnic groups in the study, which could have significantly impacted the overall validity of the

present findings. Third, respondents were not asked to specify the geographic region in

which their university was located, so it is possible that results are not reflective of all

geographic regions within the United States. Next, the study relied on self-reported data to

assess academic performance, which could have introduced biases such as social desirability.

While most achievement motivation research relies on self-reported measures of academic

performance, other fields interested in academic performance may use more reliable

assessments such as standardized achievement measures or obtaining students' official

academic records. Another limitation of the present study is that no adjustments were

performed for family-wise error rate throughout the analyses. Therefore, it is possible that a

type I error was made, as several hypotheses were evaluated. Lastly, the study was non-

experimental in nature; thus, no causal relations can be drawn regarding the relationship

between ethnicity, achievement motivation, and reasons for attending college.

Implications and Future Research

The present study's findings revealed several venues for future research in the area of

achievement motivation and reasons for attending college among ethnic minority students.

One of the major implications of this study was that there were no ethnic differences in

students' achievement motivation. However, caution is warranted when interpreting this finding as a true reflection of all college students given the aforementioned restriction of range in achievement motivation. As such, it may be difficult to generalize the current study's findings that there are truly no ethnic differences in students' motivation for success in the college classroom to the general population. An additional explanation for these findings may be that there are other more important factors than ethnicity that are influencing students' success in college. Thus, the question remains: what factors can universities target to foster Hispanic students' success in the classroom? To find an efficacious solution to this problem, researchers are encouraged to shift their focus away from students' fixed characteristics, such as ethnicity, and assess the malleable environmental elements that may have a more direct impact on student's desire for success in the college classroom. This is evidenced by numerous studies demonstrating how classroom goal structures (i.e., achievement goal-related messages conveyed by instructors' classroom practices) influence students' academic performance in educational settings (Ames, 1992; Ames & Archer, 1988; Lau, S., & Nie, 2008).

Another implication of the study is that Hispanic students are more likely to attend college than Non-Hispanic White students when they are encouraged to do so by a mentor, someone they admire, or someone who believed they could succeed. Given the power of encouragement in college enrollment, future researchers should explore its role in college retention as well. With the exception of the encouragement area, the different ethnicities indicated similar reasons for attending higher education institutions. This suggests that there may be other variables that maintain the gap between Hispanic and Non-Hispanic White college enrollment levels. Phinney, Dennis and Osorio (2006) hypothesize that the decision

to attend a university may not be confined by one's mere ethnicity; rather, it is influenced by an amalgamation of factors such as SES, ethnic identity, and family interdependence. In light of this, future studies should investigate other ethnicity-related factors to better explain college minority students' desire to attend a university.

The study also revealed that neither ethnicity nor achievement motivation were able to adequately explain students' academic performance in the classroom. This finding further strengthens the need for a more in-depth analysis of other influential factors that are better able to explain ethnic minority students' academic performance. Future studies could explore the impact of external variables, such as universities' geographic location and ethnic make-up, levels of social support and encouragement, quality of instruction, and instructor-student relationship on academic performance. This inquiry would not only further our theoretical understanding of factors that influence the academic performance of ethnic minority students, but it could also provide educators with a list of environmental factors that can be manipulated to promote students' academic success.

Lastly, most of the research concerning ethnic differences in achievement motivation is based on K-12 populations and cannot be generalized to college-aged students. Aside from the developmental differences between these populations, Hispanics are among the most underrepresented students in higher education (Zarate & Burciaga, 2010). Specifically, there are less Hispanic students who attend universities than is expected given their representation in the general population. To our knowledge, there are no studies that examine the specific characteristics, for instance achievement motivation, of Hispanic students who have chosen to attend college as opposed to those who have not. Seeing as there are often more differences within groups than there are between groups, it would be beneficial to pinpoint

the factors that are responsible for the divide in college enrollment within Hispanic groups.

In sum, these potential inquiries could provide information to higher education institutions on

how to best support an increasingly diverse student population.

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Table 1

Sample Demographics by Ethnicity

	Ethnicity			
	Hispanic (n = 93)	%	Non-Hispanic (n = 87)	%
Age*	22.3	-	22.5	-
Gender				
Male	53	51.0	51	49.0
Female	40	52.6	36	47.4
Educational Level				
Freshman	3	37.5	5	62.5
Sophomore	19	44.1	24	55.8
Junior	44	68.1	21	32.3
Senior	27	42.2	37	57.8
GPA*	3.47	-	3.49	-
SAT*	1489	-	1453	-
ACT*	27	-	27	-
Total Family Income**	$40,000- 49,999	-	$40,000- 49,999	-

Notes.

*Mean of variable
** Mode of variable

Table 2

Participant Characteristics for Achievement Motivation

	Ethnic Group	
	Hispanic	Non-Hispanic
Achievement Motivation	*M* (*SD*)	*M* (*SD*)
Mastery-Approach	4.1 (0.7)	4.1 (0.7)
Mastery-Avoidance	3.6 (0.8)	3.5 (0.9)
Performance-Approach	3.9 (0.9)	3.9 (0.7)
Performance-Avoidance	3.6 (1.0)	3.6 (0.9)
Intrinsic Motivation	5.4 (1.0)	5.4 (1.1)
Extrinsic Motivation	5.7 (0.9)	5.5 (0.9)

Table 3

Correlations for Achievement Motivation, Motivations for Attending College, and Academic Performance

Variables	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.
1. Mastery-Approach	-													
2. Mastery-Avoidance	.283**	-												
3. Performance-Approach	.538**	.428**	-											
4. Performance-Avoidance	.211**	.779**	.547**	-										
5. Intrinsic Motivation	.612**	.331**	.473**	.283**	-									
6. Extrinsic Motivation	.525**	.413**	.590**	.441**	.507**	-								
7. Career/ Personal	.603**	.330**	.479**	.334**	.581**	.605**	-							
8. Humanitarian	.270**	.220**	.257**	.211**	.377**	.174*	.378**	-						
9. Default	-.103	.210**	.079	.183*	-.068	.047	.121	.424**	-					
10. Expectation	.162*	.186*	.251**	.249**	.073	.300**	.320**	.361**	.458**	-				
11. Prove Worth	.025	.244**	.205**	.315**	.086	.176*	.327**	.535**	.524**	.536**	-			
12.Encouragement	.330**	.229**	.174*	.184*	.331**	.320**	.507**	.581**	.266**	.482**	.493**	-		
13. Help Family	.333**	.102	.317**	.157*	.318**	.297**	.366**	.465**	.084	.419**	.248**	.405**	-	
14. Grade Point Average	.042	.030	.097	.010	.096	.050	-.021	.109	-.036	-.054	-.114	.034	-.021	-

Notes.
* $p < .05$.
** $p < .01$.

Table 4

Participant Characteristics for Motivations for Attending College

	Ethnic Group	
Motivations for Attending College	Hispanic *M* (*SD*)	Non-Hispanic *M* (*SD*)
Career or Personal	4.1 (0.6)	3.9 (0.5)
Humanitarian	3.3 (1.0)	3.1 (0.9)
Default	2.8 (0.7)	2.6 (0.8)
Expectation	3.5 (0.9)	3.3 (1.0)
Prove Worth	3.1 (1.2)	2.8 (1.0)
Encouragement*	3.8 (0.9)	3.3 (1.0)
Help Family	3.9 (0.9)	3.7 (1.0)

Note.

*Ethnicity Difference Significant at p < .05.

Table 5

Summary of the Hierarchical Regression Analysis for Achievement Motivation Predicting Students' Academic Performance (N = 180)

Variable	Academic Performance [a]		
	B	*SE* B	β
Step 1			
Ethnicity	-.022	.049	-.033
Step 2			
Ethnicity	-.022	.050	-.034
Mastery-Approach	-.035	.049	-.077
Mastery-Avoidance	.021	.047	.055
Performance-Approach	.054	.044	.135
Performance-Avoidance	-.039	.045	-.115
Intrinsic Motivation	.032	.032	.099
Extrinsic Motivation	-.003	.037	-.008

Note.

[a] $\Delta R^2 = .001, p > .05$ for Step 1; $\Delta R^2 = .019, p > .05$ for Step 2

Table 6

Summary of the Hierarchical Regression Analysis for Achievement Motivation Predicting Students' Motivations for Attending College Factors (N = 180)

Variable	Career or Personal [a]			Humanitarian [b]			Default [c]			Expectation [d]		
	B	SE B	β	B	SE B	β	B	SE B	β	B	SE B	β
Step 1												
Ethnicity	-.111	.088	-.094	-.190	.154	.092	-.169	.110	-.113	-.172	.142	-.091
Step 2												
Ethnicity	-.056	.064	.047	-.209	.145	.101	-.169	.110	.113	-.132	.137	.070
Mastery-App	.242	.062	.294**	.095	.141	.066	-.189	.106	-.182	.094	.133	.072
Mastery-Av	-.023	.060	-.034	.055	.136	.047	.207	.103	.240*	-.049	.128	-.045
Performance-App	.005	.056	-.007	.113	.128	.090	.109	.097	.120	.092	.121	.080
Performance-Av	.064	.057	.106	.089	.130	.085	-.005	.099	-.007	.164	.123	.169
Intrinsic Motivation	.135	.041	.233**	.331	.093	.328**	-.074	.070	-.101	-.150	.088	-.162
Extrinsic Motivation	.190	.046	.298**	-.166	.106	-.149	.011	.080	.013	.238	.100	.233*

Variable	Prove Worth [e]			Encouragement [f]			Help Family [g]		
	B	SE B	β	B	SE B	β	B	SE B	β
Step 1									
Ethnicity	-.308	.171	-.134	-.464	.150	-.226**	-.236	.148	-.119
Step 2									
Ethnicity	-.311	.167	.135	-.401	.141	-.195**	-.311	.167	.112
Mastery-App	.178	.162	-.111	.292	.137	.204*	.178	.162	.157
Mastery-Av	.007	.156	.005	.080	.133	.068	.007	.156	-.162
Performance-App	.127	.147	.091	-.200	.125	-.160	.127	.147	.141
Performance-Av	.312	.150	.266*	.072	.127	.069	.312	.150	.104
Intrinsic Motivation	.011	.107	.010	.163	.091	.162	.011	.107	.143
Extrinsic Motivation	.050	.122	.040	.158	.103	.143	.050	.122	.066

Note.
*$p < .05$
**$p < .01$

[a] $\Delta R^2 = .009$, $p > .05$ for Step 1; $\Delta R^2 = .509$, $p < .01$ for Step 2

[b] $\Delta R^2 = .008$, $p > .05$ for Step 1; $\Delta R^2 = .168$, $p < .01$ for Step 2

[c] $\Delta R^2 = .013$, $p > .05$ for Step 1; $\Delta R^2 = .085$, $p < .05$ for Step 2

[d] $\Delta R^2 = .008$, $p > .05$ for Step 1; $\Delta R^2 = .122$, $p < .01$ for Step 2

[e] $\Delta R^2 = .018$, $p > .05$ for Step 1; $\Delta R^2 = .109$, $p > .05$ for Step 2

[f] $\Delta R^2 = .051$, $p < .01$ for Step 1; $\Delta R^2 = .160$, $p < .01$ for Step 2

[g] $\Delta R^2 = .014$, $p > .05$ for Step 1; $\Delta R^2 = .019$, $p < .01$ for Step 2

Appendix A

Demographic Questionnaire

1. What is your age? ___

2. What is your gender? Female ____ Male ____ Other ____

3. What is your ethnicity?
      a. Hispanic/Latino
      b. Non Hispanic/Latino

4. Educational Level
      a. Freshman
      b. Sophomore
      c. Junior
      d. Senior

5. What is your current grade point average (GPA)? ____

6. Which of these categories best describes the total income your family earned, per year?
      a. Less than $5,000
      b. $5,000 through $11,999
      c. $12,000 through $15,999
      d. $16,000 through $24,999
      e. $25,000 through $34,999
      f. $35,000 through $39,999
      g. $40,000 through $49,999
      h. $50,000 through $74,999
      i. $75,000 through $99,999
      j. $100,000 through $249,999
      k. $250,000 through $499,999
      l. $500,000 through $999,999
      m. $1,000,000 or more

Appendix B

Motivated Strategies for Learning Questionnaire (MSLQ)

The following questions ask about your motivation for and attitudes about your classes. Use the scale below to answer the questions.

1	2	3	4	5	6	7
Not at all true of me						Very true of me

1. I want to do well in my classes because it is important to show my ability to my family, friends, employer, or others.

2. I prefer course material that really challenges me so I can learn new things.

3. Getting a good grade is the most satisfying thing for me right now.

4. I prefer course material that arouses my curiosity, even if it is difficult to learn.

5. The most satisfying thing for me in my courses is trying to understand the content as thoroughly as possible.

6. The most important thing for me right now is improving my overall grade point average, so my main concern in my class is getting a good grade.

7. When I have the opportunity in my classes, I choose course assignments that I can learn from even if they don't guarantee a good grade.

8. If I can, I want to get better grades in my classes than most of the other students.

Appendix C

Achievement Goal Questionnaire-Revised (AGQ-R)

The following statements concern your attitudes toward learning and performance in your college classes. Please indicate how true each statement is of you. If you think the statement is true of you, mark yourself a 5. If a statement is not at all true of you, mark a 1. If the statement is more or less true of you, find the number between 1 and 5 that best describes you. **There are no right or wrong answers. Just answer as accurately as possible.**

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

1. My aim is to completely master the material presented in this class.

2. I am striving to do well compared to other students.

3. My goal is to learn as much as possible.

4. My aim is to perform well relative to other students.

5. My aim is to avoid learning less than I possibly could.

6. My goal is to avoid performing poorly compared to others.

7. I am striving to understand the content as thoroughly as possible.

8. My goal is to perform better than the other students.

9. My goal is to avoid learning less than it is possible to learn.

10. I am striving to avoid performing worse than others.

11. I am striving to avoid an incomplete understanding of the course material.

12. My aim is to avoid doing worse than other students.

Appendix D

Student Motivation for Attending University (SMAU) – revised

Please rate the following statements in terms of how important you think they are in explaining your reasons for attending university. Please rate each of them on the following scale:

1	2	3	4	5
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

1. It gives me the opportunity to study and learn.

2. To prove wrong those who thought I was not "college material".

3. To get into an interesting and satisfying career.

4. To help people who are less fortunate.

5. It is better than the alternatives.

6. To understand the complexities of life   .

7. To get an education in order to help my parents/family financially

8. I was encouraged by a mentor or role model.

9. To contribute to the welfare of others.

10. I don't get anything out of my courses.

11. To achieve personal success.

12. I am expected to get a degree.

13. Parents/family would be very disappointed   .

14. To prove wrong those who expected me to fail   .

15. To develop myself personally.

16. To obtain the "finer things in life."

17. There were pressures on me from my friends.

18. To contribute to the improvement of the human condition.

19. To make meaningful changes to the "system".

20. To prove to others that I can succeed in college.

21. To help me earn more money.

22. There are few other options.

23. To improve my intellectual capacity.

24. I owe it to parents/family to do well in college.

25. To achieve a position of higher status in society.

26. There was someone who believed I could succeed.

27. I often ask myself why I'm in university   .

28. To understand complexities of the modern world.

29. There were pressures on me from parents/family.

30. Someone I admired or respected encouraged me.

31. Had no choice but to come to college.

32. It would allow me to help parents/family financially.

33. Would let parents/family down if I didn't succeed.

Appendix E

Institutional Review Board (IRB) Exemption

Appalachian STATE UNIVERSITY

INSTITUTIONAL REVIEW BOARD
Office of Research Protections
ASU Box 32068
Boone, NC 28608
828.262.2692
Web site: http://researchprotections.appstate.edu/
Email: irb@appstate.edu

To: Simona Gizdarska
Psychology
CAMPUS MAIL

From: IRB Administration
Date: 09/18/2015
RE: Notice of IRB Exemption
Study #: 16-0039
Study Title: Ethnic Differences in Achievement Motivation: Associations with Beliefs about Higher Education
Exemption Category: 2. Anonymous Educational Tests; Surveys, Interviews, or Observations

This study involves minimal risk and meets the exemption category cited above. In accordance with 45 CFR 46.101(b) and University policy and procedures, the research activities described in the study materials are exempt from further IRB review.

Study Change: Proposed changes to the study require further IRB review when the change involves:

- an external funding source,
- the potential for a conflict of interest,
- a change in location of the research (i.e., country, school system, off site location),
- the contact information for the Principal Investigator,
- the addition of non-Appalachian State University faculty, staff, or students to the research team, or
- the basis for the determination of exemption. Standard Operating Procedure #9 cites examples of changes which affect the basis of the determination of exemption on page 3.

Investigator Responsibilities: All individuals engaged in research with human participants are responsible for compliance with University policies and procedures, and IRB determinations. The Principal Investigator (PI), or Faculty Advisor if the PI is a student, is ultimately responsible for ensuring the protection of research participants; conducting sound ethical research that complies with federal regulations, University policy and procedures; and maintaining study records. The PI should review the IRB's list of PI responsibilities.

Appendix F

Informed Consent to Participate in Research
Information to Consider About this Research

Appalachian State University's Institutional Review Board has determined this study to be exempt from IRB oversight.

What is the purpose of this research?
The purpose of this study is to examine ethnic differences in achievement motivation in the college classroom. Additionally, we are interested in exploring achievement motivation's relationship with academic performance and students' purposes for attending a higher education institution. We plan to share the results of this study by publishing a thesis and presenting at a number of conferences.

Why am I being invited to take part in this research?
You are invited to participate because you are a Caucasian Non-Hispanic or a Hispanic college student between the ages of 18 and 25 years old.

What will I be asked to do?
The research procedures will be conducted online using Amazon Mechanical Turk (MTurk).The testing session will last approximately 10 minutes. If you agree to be part of the research study, you will be asked to electronically sign this consent form and to answer five questionnaires inquiring about your achievement motivation, academic performance, purpose beliefs about attending college, and basic demographic information.

What are possible harms or discomforts that I might experience during the research?
To the best of our knowledge, the risk of harm and discomfort from participating in this research study is no more than you would experience in everyday life.

What are possible benefits of this research?
There may be no personal benefit from your participation but the information gained by doing this research may help others in the future. This research should help us better the field of education by providing faculty across disciplines with empirically-supported suggestions for enhancing student motivation in diverse college classrooms. Additionally, faculty members will be introduced to students' reasons for attending college, and will have the opportunity to modify their teaching strategies to better match their diverse classroom's needs.

Will I be paid for taking part in the research?
We will compensate you with 1 dollar for the time you volunteer while being in this study.

What will it cost me to take part in this research?
It will not cost you any money to be part of the research.

How will you keep my private information confidential?

This study is anonymous. That means that no one, not even members of the research team, will know that the information you gave came from you. You will not be identified in any published or presented materials. The data will be stored for three years after the study's completion. After three years all electronic files will be destroyed.

Please be aware that any work performed on Amazon MTurk can potentially be linked to information about you on your Amazon public profile page, depending on the settings you have for your Amazon profile. We will not be accessing any personally identifiable information about you that you may have put on your Amazon public profile page. We will store your MTurk worker ID separately from the other information you provide to us.

Whom can I contact if I have a question?
If you have any questions or concerns about the nature of this research or the survey please contact Simona Gizdarska, Graduate Student in School Psychology, Appalachian State University, gizdarskasv@appstate.edu or irb@appstate.edu.

Do I have to participate?
Your participation in this research is completely voluntary. If you choose not to volunteer, there is no penalty or consequence. If you decide to take part in the study you can still decide at any time that you no longer want to participate. You will not lose any benefits or rights you would normally have if you do not participate in the study.

Vita

Simona Veselinova Gizdarska was born in Sofia, Bulgaria, where she spent the first part of her life. At age 12, she and her family immigrated to the United States. They spent several years in New York and eventually moved south to North Carolina, where Simona graduated from Middle College High School and went on to Appalachian State University. In May 2014, she obtained a Bachelor of Science degree in Psychology and chose to further her education in Appalachian's School Psychology graduate program. In July 2016, Simona moved to Northern Virginia, where she completed an internship with Loudoun County Public Schools and earned a Master of Arts and Specialist Degree in School Psychology in May 2017.