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José Luis Meza Discua for the degree of Doctor of Philosophy in Education presented on December 9, 2011.

Factors that Motivate Latino Students to Pursue Higher Education in Selected Colleges in the State of Oregon

Abstract approved:

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ABSTRACT

Latinos are the largest and most rapidly growing ethnic minority in the United States, and they have the highest dropout rates of any major ethnic group in the country (U.S. Department of Labor, 2003). Latinos' educational attainment is consistently lower than that of other students (Gandara, 2008). The majority of Latino college students in the state of Oregon are of Mexican origin and have parents with low income and low levels of education, which ultimately influences the students' decisions in whether or not to pursue higher education. This study examines these and other factors which motivate Latino students to pursue higher education in selected colleges in the state of Oregon. Quantitative data was gathered and evaluated to determine their academic self-efficacy, an idea grounded in Social Cognitive Theory (Bandura 1997). Accordingly, this dissertation analyzed personal, environmental, and demographic factors as determinants of the academic self-efficacy of Latino college students. The results indicated that mothers (family being one of the environmental factors) were the most motivating persons for Latino college students pursuing higher education, followed by the influence of friends. The results also revealed that another

influencing factor in academic self-efficacy of Latino college students was their own self-efficacy and their personal goal orientation. Female students reported the highest scores of self-efficacy for a four-year institution, followed by students of both genders aged between 18 and 22 years old. Latino college students' choice of agriculture as a program to pursue in higher education was also analyzed, despite the fact that the majority (92 %) of Latino college students did not choose an agriculture-related career.

Factors that Motivate Latino Students to Pursue Higher Education in Selected Colleges in the State of Oregon

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I understand that my dissertation will become part of the permanent collection of Oregon State University libraries. My signature below authorizes release of my dissertation to any reader upon request.

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Jose Luis Meza Discua, Author

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DEDICATION

I dedicate this dissertation to God, the Creator, who gave me the conviction and wisdom to accomplish this level of education.

I also dedicate this dissertation to the memory of my mother, Florencia Discua de Meza, who suffered for years the absence of me, her first son. My mother's life and affliction motivated me to achieve higher education.

Finally, I dedicate this dissertation to my family: my wife Norma, and my children Jose Jr., Norma Jr., Lourdes, and Manuel for their beliefs and support to complete this study.

INTRODUCTION

Latino Population in the United States

Since its inception, the United States has held promise for immigrants who come to its shores seeking new possibilities for a prosperous life. Hispanics, or, in the context of this paper, those also known as Latinos, account for a major portion of recent immigration trends in the United States. The term *Latino* refers to people of Cuban, Mexican, Puerto Rican, and Central and South American descent, and, historically, the word *Hispanic* referred only to those who originated from Spain and implies a cultural heritage or lineage from Spain. However, in North America, *Hispanic* has evolved and is now applied to all Spanish-speaking people, despite the fact that the overwhelming majority of the "Hispanic" population hails from Latin America. In this regard, the term is imprecise. (Mexican-Americans often eschew identifying with Spain because of their colonial experience under Spanish domination.) Conversely, the term "Latino" refers to people originating or having a cultural heritage from Latin America. (See "Hispanic/Latino" under Key Terms.)

The U.S. Census Bureau reported that as of July 1, 2006, 44.3 million immigrant "Hispanics" (the term used in the report) were living within United States' borders and composed approximately 14.8 % of the United States' population, which at the time approximated 299 million. Mexican immigrants accounted for 64 % of the Latino population in the United States in 2006, followed by Puerto Ricans (9 %) and Central Americans (7.6 %). The National Center for Education Statistics (2005) projected that by 2050, America's Latino population will have reached 98 million. Moreover, the same

census survey (2006) reported that the median age for Latinos in America is 27.2, whereas the nationwide median age is 36.2. That means that one-third of the Latino population is under the age of 18, compared with one-fourth of the overall population. These statistics portend exponential growth of a young Latino population within the wider context of general population trends. It is projected that by the year 2025, 25 % of students between kindergarten and the 12th grade will be Latinos (Gregory, 2003). This carries scary implications for the country's university system.

Troubling statistics reflect a disproportionately high college dropout rate among Latinos. Though Latino students represent the fastest growing population (Chapa, De La Rosa, 2004), only 47 % enroll in postsecondary education, compared to 67 % of Anglo students (Swail, Cabrera, & Lee, 2004). In addition, college statistics show that the Latino population makes up less than 6 % of all recipients of bachelor's degrees, while only 11 % of all Latinos in the United States have college degrees, compared to 25 % of the total population (Nevarez, 2001). (These figures are considerably higher in states such as Texas, Arizona, California, and Florida.) As a result of the growing Latino student population, colleges and universities in the United States must seek ways to increase their enrollment and facilitate their Latino student base to attain academic success. It is likewise critical to understand the reasons for such high attrition rates among Latinos, which include, for example, personal or family issues, dissatisfaction with college environment, academic unpreparedness, financial constraints, and lack of school counselors, which reflects the colleges' inability to meet the educational, social, and emotional needs of students (Mangold, Bean, Adams, Schwab, & Linch, 2002).

This study focuses on motivational constructs, including the role of academic self-efficacy in encouraging students to try hard, persist, and better perform (Schunk, Pintrich & Meece, 2008), in order to elevate Latino contributions to the wider culture.

Latinos and Higher Education

A large percentage of college students in the American school system are minorities, including a growing number of Latino students. Although the majority of Latino public school students are born in the United States, 17 % of Latino public school students are immigrants (Fry & Gonzalez, 2008), and many of these students are illegal. Consequently, about 65,000 undocumented students graduate yearly from United States' public high schools (Oliveres, Chavez, Soriano, & Tierney, 2006). This growing student population and its rates of dropping out of school is challenging the American school system to concentrate on this ethnic group by means of increased attention aimed at improving academic success of Latino students. According to Excellency in Education, about 10 % of Latinos in America now have a college education, while the national average for adults is over 25 % (Brown et al, 2003). Much of the research on this matter has looked to the past to investigate low performance and drop-out rates of Latino students in higher education. On the other hand, institutions of higher learning need to adjust their views and instead look forward to anticipate and/or predict the needs of and potential hazards for Latino college students, as well as to find ways to overcome these hurdles to help them succeed.

Latinos in Oregon

The U.S. Census Bureau (2010) reported that Latinos account for 11.7 % of the general population in Oregon, which stands at 3,831,074 (448,235 of which are Latinos). However, the average level of education and income is lower than that of the overall population. Years of research have demonstrated that Latino students in the American education system are failing. As a result, improving educational access and academic achievement for these traditionally underrepresented students in colleges across the state of Oregon is vitally important. Despite the increase of the Latino student population in colleges in Oregon, these students struggle to succeed in postsecondary education and face many barriers that prevent them from pursuing higher education (American School Counselor Education, 2005). This study provided a vehicle for Latino students enrolled in selected colleges in Oregon to speak with their own voices about their motivations to pursue higher education, their college-lives, and the importance of their graduation.

Purpose of Study

The high dropout rate of Latinos indeed represents a national challenge for educators and administrators of institutions of higher education within the American school system. A fundamental principle that this study explores is the role of academic self-efficacy and its impact upon the success rate of Latino students enrolled at the undergraduate level. Academic self-efficacy, as described in Bandura's social cognitive theory, is “the belief in one’s capabilities to organize and execute the courses of action

required to manage prospective situations" (Bandura, 1995). By believing that they possess the ability to succeed, Latino college students are in turn more motivated to achieve academic success. (See "Self-efficacy" in Key Terms.) Thus, this study explores the ways in which academic self-efficacy influences Latino students enrolled at selected colleges across the state of Oregon. It addresses, in particular, personal and environmental factors as they are applied to Bandura's social cognitive theory. Moreover, this study examines the role of personal, familial, social, and institutional factors that motivate Latino students to pursue higher education. Ultimately, rather than focusing upon the standing predicament of high dropout levels among Latinos, this study provides forward-looking information to develop future strategies to implement and elevate the success rates for Latino students in obtaining a college degree. In the effort to turn the tide, it is time to look forward and tackle the objectives and subsequent questions that guide this study. These are:

1. Describe the demographic characteristics of the students.

    a) What is the percentage of female students compared with male students?

    b) What are the ages of students?

    c) What are the students' countries of origin?

    d) What are the percentages of distribution of students' parents' levels of education?

    e) What are the students' parents' levels of annual income?

2. Describe students' motivation related to family factors.

a) What are the students' mean scores of motivation by their mothers?

b) What are the students' mean scores of motivation by their fathers?

c) What are the students' mean scores of motivation by their friends?

d) What are the students' mean scores of motivation by their teachers?

e) What are the students' mean scores of motivation based on their gender?

f) What are the students' mean scores of motivation based on their ages?

g) What are the students' mean scores of motivation based on their parents' annual income?

h) What are the students' mean scores of motivation based on their countries of origin?

3. Describe students' self-efficacy related to gender, age, and type of college.

a) What are the students' self-efficacy mean scores based on their gender?

b) What are the students' self-efficacy mean scores based on their ages?

c) What are the students' self-efficacy mean scores based on type of college?

4. Describe students' personal goal orientation.

a) What are the students' personal goal orientation mean scores based on their gender?

b) What are the students' personal goal orientation mean scores based on their ages?

c) What are the students' personal goal orientation mean scores based on type of college?

d) What are the students' personal goal orientation mean scores based on their primary language?

e) What are the students' personal goal orientation mean scores based on position in their families?

5. Describe students' academic self-efficacy.

a) What is the summated level of academic self-efficacy based on their gender?

b) What is the summated level of academic self-efficacy based on their ages?

c) What is the summated level of academic self-efficacy based on type of college?

6. Describe what independent variables explain the greatest variance in academic self-efficacy.

a) What are the relationships between independent variables (general self-efficacy; institution, family, and personal factors) and academic self-efficacy?

b) Which independent variable accounts for the greatest variance in academic self-efficacy?

c) What is the percentage of variance explained by institution?

d) What is the percentage of variance explained by personal factors?

e) What is the percentage of variance explained by family factors?

f) What is the percentage of variance explained by general self-efficacy?

7. Describe students' choice of agriculture as a program to pursue higher education.

a) What percentage of respondents took agriculture classes in high school?

b) What percentage of respondents took agriculture classes in college?

c) What is the percentage of students enrolled in agriculture classes in college?

d) What is the percentage of students enrolled in agriculture classes in college based on their ages?

Statement of the Problem

Higher education today suffers from a deep cultural problem; failure to graduate has become acceptable. The fastest growing ethnic group in the nation, Latinos, is the least likely to enroll in college. Education officials say too few Latino students enroll in college and even fewer eventually earn a degree. Scholars have stressed that although there has been a steadily rising number of Latinos entering higher education, these students continue to be significantly less likely to complete a college degree. The gap in the number of Latino and non-Latino college students who graduate with a bachelor's degree represents a disproportion in educational achievement for Latinos and non-Latino students. According to the Pew Hispanic Center, half of the Latinos who enroll at institutions of higher education are not appropriately prepared academically to succeed in college (Fry, 2004). Regardless of high educational expectations, Latinos are among the least educated demographic in the United States: only 11 % of those over age 25 have earned a bachelor's degree or higher, compared with 17 % of African Americans, 30 % of whites, and 49 % of Asian Americans in the same age group (U.S. Census Bureau, 2004). These numbers represent all Latino groups, including recent immigrants.

According to a professor from the University of Florida, and President of the SunCoast Mental Health Counselors Association, Latino students have the highest dropout rate of any ethnic group in the United States (Zalaquet, 2005). The gap between

Latino and non-Latino college students who graduate reflects the consistent trend that Latino students remain less likely to complete a bachelor's degree. In Oregon specifically, Latinos possess low test scores, high dropout rates, and language and socioeconomic barriers that have historically sabotaged upward mobility. These challenges can be conquered, but the focus of this challenge must go beyond the continual rehearsal and consolidation of the dismal statistics. Instead, research and efforts must focus on analyzing social and economic challenges particular to this demographic, assessing their needs, and strategizing creative and effective ways to establish a stable environment which elevates the desire to learn and inspires Latino college student to stay the course through college.

To this end, this study investigates some external and internal factors that motivate Latino students to pursue higher education in the context of selected colleges in the state of Oregon.

Assumptions of the Study

For the purposes of this study, the writer brings the following assumptions to the analysis and proposed strategies related to Latino students in colleges in Oregon. These include:

1. Significant people in a Latino student's life have influenced his/her college decision.
2. The target population for this study is comprised of Latino students already enrolled in college.

3. The pilot survey was implemented to accurately measure variables or motivating factors and it was revised by experts. A final survey was created and it was applied to the participant institutions.
5. The respondents provided accurate answers to the research questions.
6. The findings of this study will provide useful information to college faculty, staff, and administrators with the aim of graduating higher numbers of Latino students in Oregon.
7. The results of this research will promote Latinos in reaching their "American dream" through education.

Limitations of the Study

1. The data collected by researchers is limited to Latino students admitted in five selected colleges in the state of Oregon for the Winter/Spring semesters in 2011.

2. Results and findings are applicable only to participating institutions within this period.
3. Participants' opinions may have changed if they have transferred to another academic program at the above-mentioned colleges.
4. Participants may have changed colleges since their initial enrollment.

Significance of the Study

According to Fry (2005) from the Pew Hispanic Center, only 53 % of all Latinos who graduate from high school qualify for admission to college. Thus, from the start,

enrolling in college, in itself, is a significant step for Latino students. Staying in college and ultimately graduating in turn brings students significantly closer to reaching the "American Dream."

For decades, increasing student enrollment in colleges has been a top priority of America's leaders in higher education, but only half of students who enroll end up with a bachelor's degree. Identifying the causes of the college dropout crisis is extremely important; however, turning teenagers into educated college graduates should be less difficult than fixing all of the American education system. The biggest problem for colleges is the fact that they do not address their failures on graduation; rather, they focus only on enrollment.

Within the Latino population, few students who start college finish their programs to complete a degree (Fry, 2002). Despite years of research into the reasons for student drop-out rates, the concern over retention in colleges and universities has only increased (Braxton, 2000). Statistics for Latinos who have dropped out of United States colleges before completing their degrees reveal a serious long-term problem and implications for the education system generally and Latino communities specifically. All of this, in the end, carries an impact for the nation as a whole. If high drop-out rates for Latino students continue, the United States will fall behind other nations in education levels and will be disadvantaged internationally.

The negative social implications in Oregon are more daunting, given its large Latino immigration and workforce. Therefore, for the purposes of this paper, the writer asserts that it is vital for institutions of higher learning in Oregon to recognize factors that contribute to the success of Latino students who desire to attend college. This study

provides useful information about the factors that influence Latino students' enrollment and, persistence, and inspire them to graduate. However, future research on Latino access and success in postsecondary education is necessary.

Summary

This study investigates factors that motivate Latino students to pursue higher education in selected colleges across Oregon. The Pew Hispanic Center (2005) claimed that only 53 % of all Latinos who graduate from high school qualify for admission to college. By determining the reasons that motivate Latinos to attend college, the findings of this study will serve staff and administrators in their support of Latino students as they try to achieve academic success post-high school and into college, will help them to encourage students to stay the course, and ultimately will help to facilitate a higher rate of graduation. Because of the gap between the number of Latino students and white students who graduate from college with a bachelor's degree, Latino students' enrollment and graduation numbers from colleges in Oregon require special attention.

Every year, thousands of Latinos exit the educational pipeline before graduation. Institutional barriers within school and social, personal, and family factors create significant obstacles to success for Latino students. By dropping out, these young adults are greatly affecting their future possibilities, as well as the future of their families and communities.

List of Terms

Key terms. Latino/Hispanic, motivation, college, community college, social cognitive theory, self-efficacy, and goal orientation.

Latino/Hispanic. The term *Latino* refers to people of Cuban, Mexican, Puerto Rican, and Central and South American descents. The word *Hispanic,* once used as a reference to people originating from Spain, has now taken on new meaning. In North America, the overwhelming majority of the Unites States' Hispanic population hails from Latin America, so the label *Hispanic* is imprecise. Mexican-Americans often choose not to identify with Spain because of their colonial experience under Spanish domination. The term *Hispanic* is generally applied to all Spanish-speaking people and implies a cultural heritage or lineage from Spain. The term *Latino* refers to people originating or having a cultural heritage from Latin America.

Motivation. The term *motivation* can be defined as the internal drive directing behavior towards some end. Motivation is often also defined as "getting someone moving." The most common concepts of motivation are those of self-motivation, internal motivation, or intrinsic motivation. All of these terms are used interchangeably to describe the same motivational factors that come from within a person. Whether it is through intrinsic motivation or extrinsic motivation (external forces influencing behavior), most individuals are moved by their beliefs, values, personal interests and even fears.

Community college. The term *community* is at the heart of a community college's mission. These schools offer a level of accessibility—in terms of time, finances and geography—that cannot be found at liberal arts colleges and private universities. Community colleges play a crucial role in the path to secondary education. According to a report from the National Center for Education Statistics, in 2006-2007, 35 % of all

postsecondary students were enrolled in a community college (NCES, 2008). The reality is that community colleges promote access to higher education by being less expensive than four-year institution and by having an open admission policy. As community colleges are one of the nation's most affordable options for higher education, they are more attractive than four-year institutions for Latino students pursuing higher education. Researchers have found Latinos enroll in community colleges at a high rate compared to other ethnic groups. As a result, in 2008, about 50 % of all Latinos in higher education were enrolled in a community college compared with 36 % of blacks and 32 % of whites, according to the National Center for Education Statistics (NCES, 2010).

Social cognitive. This is a theory that examines the psychological functioning of persons within the social group. It claims that human behavior is caused by the interaction between internal cognitive factors and external social environment forces (Bandura, 1986). This theory establishes the idea that human behavior depends upon the interaction among internal factors such as beliefs, environmental conditions, and the behaviors themselves (Schunk & Pajares, 2001). This theory focuses on self-efficacy and outcomes, stating that expectations, barriers, and goals can help Latino college students to achieve academic success.

Self-efficacy. This is the major concept in Bandura's social cognitive theory, which he defined as “the belief in one’s capabilities to organize and execute the courses of action required to manage prospective situations” (Bandura, 1995). This belief in one's capabilities to achieve a goal or outcome is applied to Latinos college students’ confidence in their ability to carry out their academic goals. The study of self-efficacy in

education has brought to light the importance of not only considering the ability level of an individual, but also the individual's belief that he/she will succeed in a task. By believing that they are able to succeed, Latino college students could be more motivated to achieve academic success.

Personal Goal orientation. Goal orientation originated in educational psychology literature in the early 1980s, and has recently been applied to the work context (VandeWalle et al., 2001). Goal orientation refers to whether or not individuals personally set challenging, suitable, and effective goals (VandeWalle et al., 2001). Goal orientation represents a personal disposition to pursue either learning or performance goals in achievement situations. It is associated with the belief that ability can be developed and can motivate individuals to increase their competence and master challenging situations (Dweck, 1999). Research has shown that different goal orientations determine students' cognitive processes. For example, students with a goal-oriented attitude are motivated to achieve success in their educational performance (Valle et al., 2003). It is believed that students achieve better performance if they follow an internal motivation (Fortune et al., 2005). Research demonstrates a wide variety of desirable academic behaviors and motivational constructs such as academic efficacy (Midgely, Anderman & Hicks, 1995).

REVIEW OF LITERATURE

Introduction

The status of Latino student achievement in Oregon's institutions of higher education requires urgent attention and action in order to raise the performance levels and secure positive results for this fast-growing student demographic. As noted, retaining students through graduation remains a pressing challenge for institutions of higher education generally. According to Carey, 2004, one out of five four-year universities in the United States graduate less than one-third of its full-time freshmen. The numbers are more dismal for the Latino student population. The research highlights several causes for attrition, including personal reasons, job demands, and dissatisfaction with the academic environment (Kuh, Kinzie, Schub, & Associates, 2005).

This study focuses upon ways to anticipate and address these problems by means of a forward-looking strategy with the hope of increasing Latino educational success at the college level. The urgency of this issue is highlighted by the clear indication that educational achievement among Latinos remains lower than other minority groups in the United States, while, at the same time, recognizing that Latino students are a young and fast-growing population. Their life choices are destined to carry a tremendous impact upon Latino communities in the nation as a whole and, specific to this study, in Oregon.

According to the 2010 U.S. Census Bureau, approximately 448,235 Latinos live in Oregon, yet the average level of education is lower than that of the national population. Poverty rates are also higher for Latinos in Oregon and their living conditions have improved very little in the last ten years (Ferrara, 2005).

Thus, for the betterment of Oregon generally, and Latinos specifically, it is imperative that policymakers, researchers, staff, and leaders of institutions of higher education assess the factors that motivate Latinos to pursue (or not) higher education in colleges across the state of Oregon. Journalist Suzanne Pardington, in an article in *The Oregonian*, highlights some of the ways universities are attempting to enroll more Latino students, such as providing more financial and academic support, and hiring more bilingual staff. Even so, the issue is complicated and demands investigation and action beyond these fundamental first steps.

Albert Bandura's theories on social cognitive behavior (Bandura, 1999) have proven to be realistic and are therefore brought to bear in this study. His research explores the variety of factors that motivate Latino students to pursue higher education in Oregon and ultimately to help improve their academic success.

Social Cognitive Theory

Social cognitive theory provides a framework for understanding, predicting, and changing human behavior. This theory identifies human behavior as an interaction of personal, behavioral, and environmental factors (Bandura 1977; Bandura 1986). According to this theory, the student acquires knowledge as his or her environment converges with personal characteristics and experiences. In other words, and according to social cognitive theory, interactive learning allows students to gain confidence by developing skills learned in classes.

According to Bandura (1999), “People are not only knowers and performers. They are also self-reactors with a capacity to motivate, guide and regulate their activities.

Social cognitive theory posits a large set of regulatory factors that govern the nature and quality of functioning." Using this theoretical model on Latino college students, their behavior (academic self-efficacy) can be influenced by two major factors: personal and environmental. In other words, the academic success or failure (behavior) of a Latino college student involves the influences of his/her preparedness, interest, and goal orientation (personal), as well as the influences of his/her family, social, institutional, and demographic factors (environmental).

According to Jones (1989), "The fact that behavior varies from situation to situation may not necessarily mean that behavior is controlled by situations, but rather that the person is construing the situations differently and thus the same set of stimuli may provoke different responses from different people or from the same person at different times" (pp. 23-38). Based on the above, social cognitive theory is helpful for understanding and predicting the success of Latino students in order to identify factors in which their behavior can be modified (See fig # 1).

Self-Efficacy Theory

The concept of self-efficacy lies at the center of psychologist Albert Bandura's social cognitive theory, postulating (as noted) that human achievement depends on interaction between one's personal behaviors, personal factors (e.g., thoughts, beliefs), and environmental conditions (Bandura, 1986). Since Bandura published his paper, *Self-Efficacy: Toward a Unifying Theory of Behavioral Change* (1977), the subject has been widely investigated within the discipline of psychology. In the context of education, Bandura's theory of self-efficacy maintains that students are more likely to attempt, to

persevere, and to succeed at tasks they pursue, if, from the start, they possess a “can-do” sense of efficacy (Bandura, 1986). Bandura further describes his theory as determinant measures of how people think, behave, and feel (Bandura, 1994). Other researchers, like Bandura, have demonstrated that one’s sense of self-efficacy carries a significant impact on one’s motivation to achieve academic success. Students with high self-efficacy report a stronger sense of life purpose, leading to greater levels of academic success (DeWitz et al, 2009). However, first-generation students (those whose parents did not graduate from college) are more likely to choose goals that weaken their self-efficacy and hinders overall academic behavior and college completion (DeWitz, Woolsey, and Walsh, 2009).

Theoretical framework. The theoretical framework for this study is based upon the social cognitive theory and adapted from Albert Bandura, (1986).

Fig. 1. Model for Social Cognitive Theory

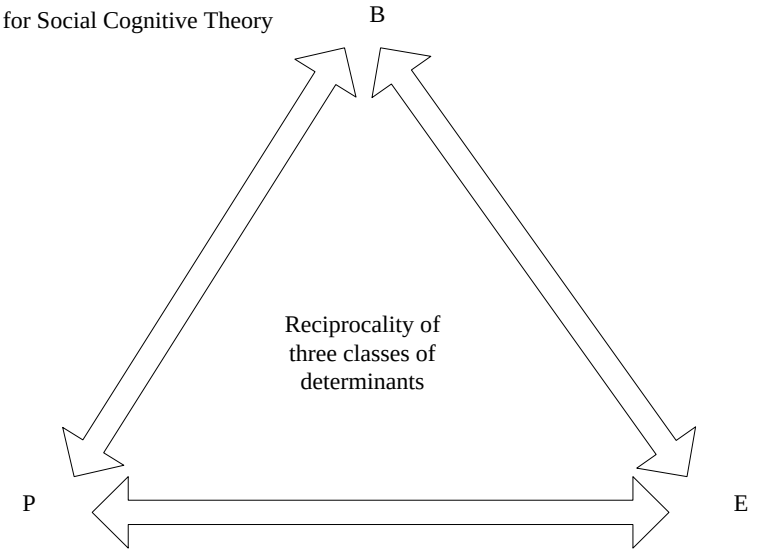

Fig. 1. Social Cognitive Theory: B represents behavior (Academic Self-efficacy), P represents personal factors (personal goal orientation and general self-efficacy), and E represents environmental factors (family, institutional, and demographic characteristics). Adapted from Bandura, 1986.

Fig. 2. Model of Academic Self-Efficacy

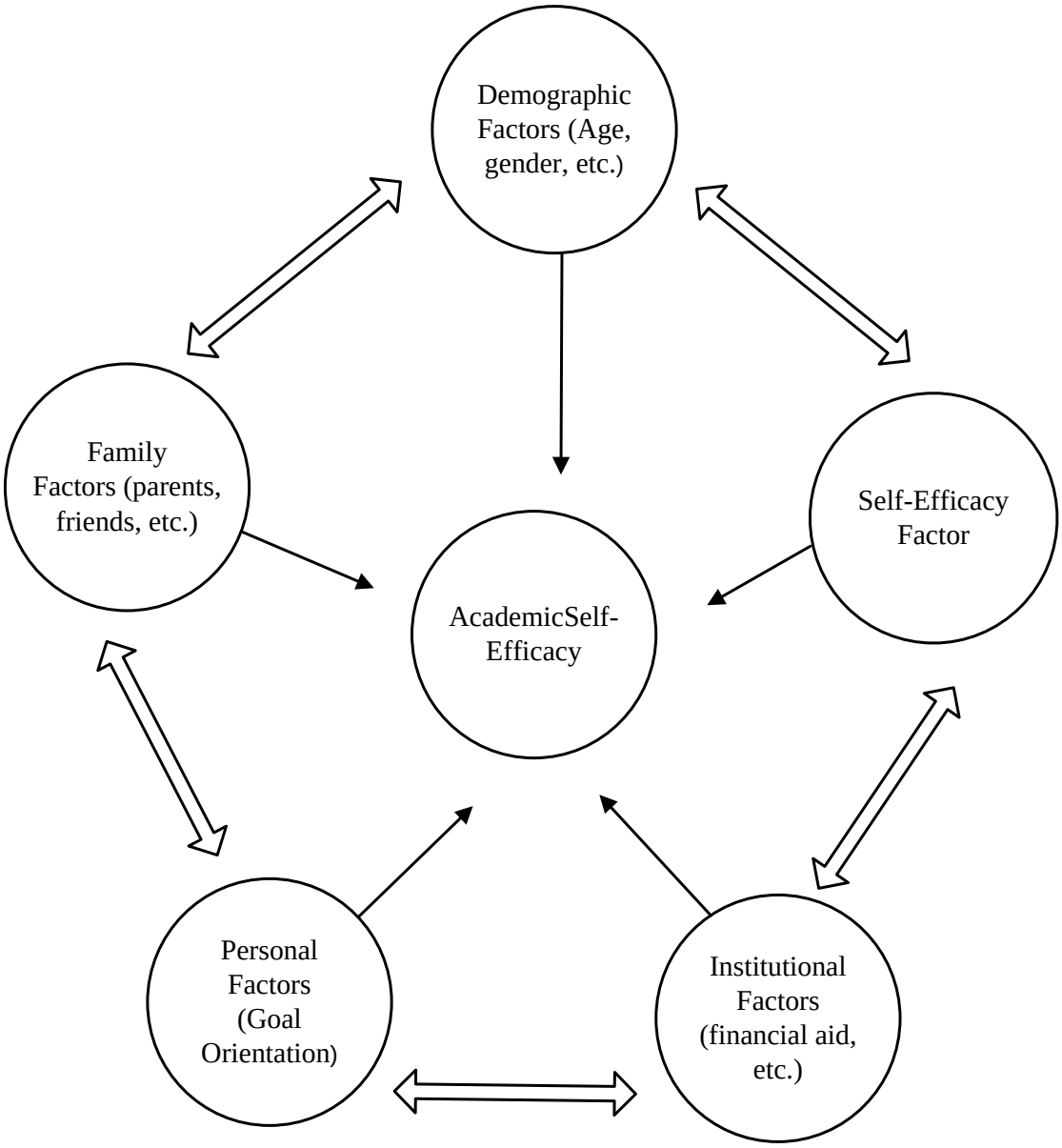

Fig. 2. Factors that motivate Latino students to pursue higher education in selected colleges across the state of Oregon, usiṅg the Social Cognitive Theory (Bandura, 1986).

Academic Self-Efficacy Theory

Many researchers illustrate that self-efficacy affects academic motivation, learning, and achievement (Schunk, 1995). It influences task choice, effort, resilience, and achievement (Bandura, 1997; Schunk, 1995). If self-efficacy informs one's beliefs about his or her capabilities, it likewise determines how one feels, thinks, finds motivation, and behaves (Bandura, 1999). As a result, people in possession of a strong sense of self-efficacy are more likely to take on tasks at which they feel confident of succeeding. Furthermore, they avoid undertakings in which they believe they will not succeed.

According to Margolis and McCabe (2006), students with high efficacy recover quickly from setbacks and are ultimately more likely to achieve their personal goals. On the other hand, students with low self-efficacy possess low aspirations and that predisposes them to poor academic performances. Simply put, students with high self-efficacy participate readily, work harder, and persist longer in the face of difficulties, and perform better academically. Thus, a student's sense of self-efficacy is linked inextricably to his or her motivation at the university level. Social cognitive theory suggests that self-efficacy, "people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances" (Bandura, 1986, p. 391), strongly influences their confidence in their skills they have. However, in some cases, students can achieve self-efficacy only, if teachers have higher levels of confidence in students' abilities.

Motivation and Latino students

A student's motivation to learn remains a fundamental concern in any classroom. The term *motivation* is defined by Marshall as "the meaningfulness, value, and benefits of academic tasks to the learner—regardless of whether or not they are intrinsically interesting" (Marshall, 1987). Motivation is also considered as a complex concept, closely aligned with "the will to learn," and encompassing self-esteem, self-efficacy, effort, and goal orientation (Harlen W., & Crick, R., 2003). To be motivated means *to be moved* to do something. A person who actively pursues a specific end is considered motivated. According to Bandura (1999), children raised in a home that nurtures a sense of self-confidence and possibility (thus, self-efficacy) are more highly motivated to accept the risks inherent to education than those whose home environment lacks this element. In other words, children at school with a strong sense of efficacy are more likely to possess optimal internal motivation.

Not only do people possess different degrees of motivation, they also operate from differing kinds of motivation (Ryan, R & Deci, E., 2000). General consensus admits that intrinsic motivation is the most critical defining factor in a college student's ability to succeed because it arises from within the individual—him- or herself (Schunk, 1991). Students with a strong sense of self-efficacy are more likely to be internally motivated, challenging themselves with difficult tasks. These students will put forth a high degree of effort to meet their academic challenges and attain success. However, motivation is also influenced by external factors, such as the environment (extrinsic). When motivation is external, it is imposed on the learner from the outside, such as from family members or teachers. In this regard, external motivation is of vital importance in academic success in so far as it similarly affects a student's feelings of accomplishment. Since Latino students

are different, institutions of higher education in the state of Oregon need to find and utilize different methods of motivating students toward a college education. Zalaquette (2006) confirmed the presence of several external motivational factors: family, education, friends, financial aid, and school personnel. Research on the academic performance of Latino students has focused on low-achievers, framing their academic motivation driven by external rather than internal generated factors (Griffing, 2006).

Despite this, little research has been done regarding Latino academic motivation to promote an interest in learning, a value of education, and a self-efficacy in their own capacities.

Motivating factors for Latino college students in Oregon

When compared to European nations, there is growing concern that the United States is not producing a sufficient number of bachelor's degrees, and a 14 million shortfall of college-educated working adults is predicted by the year 2020 (Carnevale and Desrochers, 2003). In colleges across the state of Oregon, Latino students have performed and graduated at lower rates than white students, though many institutions of higher education have been working to reduce that achievement gap. In fact, a number of universities have not only closed the gap but are seeing Latino graduation rates, in some cases, higher than those of Anglos. Between 2006 and 2008, Western Oregon University in Monmouth, Oregon graduated 49 % of Latino students compared with 43 % of whites.

Rooted in the Latin-based word "to move," motivation generally describes the relationship between the internal processes of beliefs, values and goals with the external expression of action, such as choice, persistence, and performance (Eccles & Wigfield,

2002; Schunck, Pintrich, & Meece, 2008). Some researchers have found that culture and family values motivate students, especially those from minority groups (Esparza & Sanchez, 2008). Eccles, Vida, and Barber (2004) found that high school achievement, family expectations, mothers' education levels, and family income were viable predictors of college enrolment. Oregon school districts must know how to motivate a Latino student to pursue higher education by knowing the student's attitude toward higher education. For the present study, several factors are considered as motivators of Latino students who pursue postsecondary education at institutions of higher learning in Oregon.

Earning a baccalaureate degree is the most important step in the economic ladder (Pascarella and Terenzini 2005); consequently, college graduates earn almost a million dollars more over the course of their working lives than those with only a high school diploma (Pennington 2004). Besides the demographic factors, two other major factors are explored: personal and environmental. Therefore, the factors being analyzed in this study include family, social, institutional, and personal.

Family factors. Parental involvement and support in education greatly influences a student's motivation to continue through to graduation. Conversely, a lack of support from friends, family and teachers can have the opposite effect (Gonzales & Padilla, 1997). (In 1994, Vincent Tinto proposed the dynamic Model of Institutional Departure, stating that the students who are satisfied with the academic and social systems in a college or university tend to stay in school. Conversely, students who experience negative interactions tend to become disillusioned with college, withdraw from their peers and faculty, and ultimately, the college.) Latino culture, especially, places a very high value

on the importance of family (Casas & Pytluk, 1995). This influences whether or not young Latinos leave their home to attend college (Ortiz, 2004).

The concept of family within the Latino culture includes a strong identification, attachment, feelings of loyalty, reciprocity, and solidarity among members of the same family (Marin 1993). A dominant characteristic defining the importance of family in Latino culture is the belief that a child's behavior reflects on the honor of the family. It includes a hierarchical order among siblings, as well as a duty to care for family members (Griggs, & Dunn, 1996). Latino youth must often work to support their parents and at times are bound never to marry in order to care only for their parents. Many families in this demographic continue to uphold traditions from the older, more agrarian, mindset. This means that often women are being forced to stay at home and care for their families rather than obtain outside work. Women are expected to be obedient and uphold family honor, often never allowing them to claim time, space, or a sense of accomplishment in and of themselves.

Institutional factors. Student retention is an enormous problem in today's American institutions of higher learning. Because the ability to retain students has become a determining factor in obtaining funding (Nash, 1996), college administrators are focusing their efforts on decreasing student attrition. A joint survey carried out in November 2010 in 700 United States' campuses by the Institute of International Education (IIE) reported that 21 % (137) of the responding institutions faced declining enrolment. The survey also reported that 61 % (408) of all responding institutions have

taken special steps to stem the tide and ensure that the number of students on their campuses does not decline.

The academic and social climate in higher education institutions can support or hinder positive academic success for students because of its influence on learning, persistence, and completion. As a result, to measure trends and possibilities within the Latino student paradigm, it is necessary to understand the institution's climate, and where Latino students fit into those trends (Tinto, 1997).

Latino students, who are often marginalized, need to feel that their culture and background matter to the institution in order to have a sense of belonging and, in turn, to succeed in college. If they feel ignored and dismissed by other students, faculty, or staff, their sense of alienation predisposes them to failure and they are less likely to persist in college. On the other hand, when meeting other Latinos on campus, students are better able to cope with the college environment. The research clearly indicates that the relationships Latino students have with others of their culture, even if the campus is comprised predominantly of white students, carry a positive impact on to the students' overall college experience (Hernandez, 2000).

Even so, students within this demographic often confront hostility, which, to say the least, undermines the possibility of success at the college level. "Hate crimes" are defined as "an offense against persons or property motivated by hate against a victim based on race, ethnicity, national origin, religion, sex, disability, or sexual orientation." In 1999, more than 2,000 hate crimes were reported on campuses across the United States (Office of Postsecondary Education, 2001). This alienating climate within the academic

culture often leaves Latino students confused, feeling that they must choose between their identities in their ethnic community or eschew that identity in order to fit more seamlessly into the campus community (Gloria & Pope-Davis, 1997). This confusion and internal dissonance can result in poor academic performance or, worse, dropping out of school altogether.

It is one thing to examine student success rates, but, what is needed is a means to better understand how Latino college students identify within their institution, the forces that are shaping their attitudes, and the means to enable them to feel confident enough to persevere and succeed. Understanding the conditions that influence Latino students within the context of their college experience will serve institutions well in helping students navigate this stressful and disorienting academic environment (Torres, 2003).

Personal factors. Personal factors are what are referred to in literature as background characteristics or personal goal orientation. For the purpose of this study, personal factors are referred to as personal interest, preparedness, and self-efficacy of the Latino college students. These personal factors are useful in understanding how students adjust to college (Hurtado, 2000). For example, financial assistance is essential to the enrollment and retention of students from low-income backgrounds in higher education (Nora, 2001).

Latino students who pursue higher education face conflicting emotions, pressures, and expectations. For many, the movement away from high school is a transition into adulthood and its associated difficulties (Blustein et al, 2000). Some students seem

naturally enthusiastic about college, but many need the approval of others, which, for some, may be achieved by overcoming challenges. Of the many external factors influencing a student's motivation to work and learn (Sass, 1989), it is believed that they achieve better academically if they follow a more internal motivation (Fortune et al., 2005). According to Peggy (2007), goal orientation refers to the motivation that students have for completing tasks, which may include developing, improving, and demonstrating ability to performance goals. In other words, goal orientation is a disposition associated with the person's belief in his/her ability to master challenging situations (Dweck, 1999). Research has shown that goal orientation determine students' educational performance (Valle et al., 2003).

Financial aid adds an additional element of personal pressure that can either help a student in the direction of success or diminish hope and lead to failure. Financial aid carries an impact on a student's ability to persist, especially for those who are economically disadvantaged (Tinto, 1994). Tuition increases and decreasing financial aid programs may result in many Latino college students being required to work additional hours to pay educational expenses. This, in turn, may force them to attend college part-time to mitigate college costs, or defer enrollment during the traditional college-age years (Rooney, 2002). Socioeconomic status is one of the most widely used contextual variables in education research, and is often looked to as a measure of hope for academic achievement (Bornstein & Bradley, 2003).

Self-efficacy factor. Self-efficacy is defined as a self-evaluation of one's competence to successfully execute a course of action necessary to reach desired outcomes (Bandura, 1977, 1982, 1986). A growing body of literature supports the

relationship between students' self-efficacy beliefs and their academic performance. Bandura's theory of self-efficacy has been used extensively for the study of behavior in a variety of settings. Self-efficacy refers to the strength of a person's belief that they are able to produce a given behavior. Researchers have focused primarily on performance and persistence but, less has been done looking at the relationships between self-efficacy and Latino students' college graduation.

Bandura (1993) established that self-efficacy beliefs affect college outcomes by increasing students' motivation. Identification of external and internal factors that facilitate or hinder Latino students' achievement would help in the understanding of how to increase Latino college motivation and their academic success. The purpose of this study was to examine the contribution made by the self-efficacy component of Bandura's (1986) social cognitive theory and other factors to the evaluation of motivation and academic self-efficacy of Latino students in selected colleges in the state of Oregon.

Latinos and Postsecondary Education

It has been noted already that Latinos remain the fastest-growing minority group of the United State's population and constitute a significant potential student population for the coming years (U.S. Census Bureau, 2006). Gregory (2003) has reported that the number of Latino students in colleges will only continue to grow and, by 2015, Latino undergraduate enrollment will account for 15.4 % of the country's college population. Even so, compared with other ethnic groups, Latinos possess the lowest rates of educational attainment: 11 % of Latinos over age 25 have earned a bachelor's degree as compared with 17 % of blacks, 30 % of whites, and 49 % of Asian Americans (U.S.

Census Bureau, 2002). Low expectations from the students themselves (Martinez et al, 2000) coupled with minimal information from teachers about the demands and benefits of higher education (Zalaquet, 2005) have been identified as among the barriers that prevent Latino students from enrolling in postsecondary education.

Financial hardship alone poses a significant barrier to postsecondary education and degree attainment (United States Department of Education, National Center for Education Statistics, 2001). Zalaquette and Cranson-Gingras (2006) have found, as well, that negative study habits and other personal issues prevent Latino students from aspiring for a degree in higher education. A major research study conducted by La Trobe University on the Student Experiences of Poverty (2000) determined that financial hardship affects a college student's living conditions, health, nutrition and, ultimately, academic persistence and success. Brown, Santiago and Lopez (2003) describe most Latino students as being "first-generation college students, [who] are low-income, have less academic high school education than their peers, and enroll in community colleges" (p.41). They continue by stating that many Latinos in higher education institution are nontraditional students: most are older, work, attend college part-time, and often care for their families. Moreover, Zalaquette (2005), noting that Latino students have the highest dropout rates of any ethnic group in the United States, believes this can be attributed to the student's school environment, which directly affects the academic performance.

Fry (2003) identified some similar factors that contribute to non-completion of postsecondary education, such as delayed postsecondary enrollment, part-time enrollment, working full-time, being financially independent, having children or dependents, and being a single parent. In addition, Latino students are more likely than

other ethnic groups to come from homes where parents do not speak English well—if at all—and where parental education is low. More than 40 % of Latino mothers lack a high school diploma, compared with only 6 % of white mothers. Further, about 10 % of Latino mothers have a college degree or higher, compared with almost 30 % of white mothers (Gandara, 2010).

Latinos and Two-Year Institutions

According to Bergman (2005), educational advancement remains the best hope for Latinos in realizing the "American Dream." Yet the challenges are daunting. A large number of Latinos attend college part-time and work full-time to support their families (Brown and Santiago, 2003). Within the context of Latino academic constituency, Mexicans between 18 and 24 years of age constitute 46 % of enrollment in community colleges, as compared to 31 % of Puerto Ricans and Cubans (Fry, 2002). In states such as Texas, Arizona, California, and Florida, minority students are rapidly becoming the majority (American Association of Community Colleges, 2006).

Community colleges are traditionally underrepresented in higher education despite the fact that state and federal policy increasingly looks to the community college system to educate Latinos, the largest minority group in the United States. Indeed, Latinos enroll in community colleges at rates higher than those for any other racial or ethnic group (Horn et al, 2006). Although community colleges may serve as the entry point for postsecondary education for Latinos, research indicates these students often attend on a part-time basis, prolong their college education into their mid-20s, and contribute to prolonged gaps in their attendance (Fry, 2002).

In sum, according to Conway (2009), Latino students are more likely to begin their postsecondary trajectories at a community college, and he attributed this preference to a cheaper financial cost.

Latinos and Four-Year Institutions

Though research about educational trends among Latino students has come a long way, reaching the desired goal of attaining a four-year degree remains a challenge. Less than one quarter (23.2 %) of Latino postsecondary students graduate with a four-year degree within ten years after leaving high school (compared with the rate of 47.3 % of non-Latino students; Swail et al., 2004). According to a report from UCLA Higher Education Research Institute (2006), competition has become more acute for entrance into many four-year colleges and universities. The report states that, at the start of the school year, one in five Latino students expresses a major concern about his or her ability to finance college. In predominantly four-year institutions, an offer for financial assistance was among the top reasons for Latino students in selecting their college.

Whether by choice or by necessity, community colleges are the dominant institutions for Latino students; nearly three in five Latino students in postsecondary education attend a two-year college, a far greater proportion than for any other racial or ethnic group in the United State's system (Lederman, 2010). A study from UCLA Chicano Studies Research Institute (2007) reported that 40 % of Latino students enrolled in community college for the 2002-2003 school year aspired to transfer to a four-year institution. Of that, only 10 % successfully transferred to a four-year institution. Thus,

increasing the successful transfer of Latino students from community colleges to four-year institutions is the most viable approach to increasing the number of Latino graduates from four-year institutions (Lederman, 2010).

Practices and policies that help Latino students to accomplish their academic goals begin with understanding more about Latino students entering a four-year institution. Watson et al (2005) found that socioeconomic status, parental expectations, planning, and postsecondary behaviors affect a four-year degree completion and impact the gap between Latino and non-Latino students' completion rates of four-year degrees.

Summary

The gap between Latino and Anglo college students is real. Latino students continue to be less likely to complete a college bachelor's degree. Personal characteristics of Latino college students carry a variety of negative repercussions on college orientation and academic self-efficacy. These include but are not limited to: family dynamic, social expectation, institutional atmosphere, and demographic factors. Latino college students have a greater probability for academic failure due to adverse experiences (Hassinger & Plourde, 2005) such as low expectations (Martinez, 2003) and inadequate information about access to higher education (Immerwahr, 2003).

Regardless, the Latino student population in Oregon is growing, and this reality poses an urgent need to help these students successfully navigate the challenges of higher education. These students need to view college education as a valuable option to reach their American dream. Whereas industry in Oregon adds increasing numbers of Latinos

to its workforce, a more educated Latino workforce would benefit both the workers and the industry's productivity. For this reason, institutions of higher education in Oregon must seek ways to attract and help Latino students to achieve success by providing adequate support in their institutions and programs. If Latino college students in Oregon believe they have the ability to succeed, they will be motivated to try and to persist (Bandura, 1977).

When Latinos graduate from high school and do not enroll in college at the same proportion as their white peers and do not attain bachelor's degrees at the same rate (Fry, 2002), it diminishes their options for social advancement. To increase Latino enrollment and viability at the postsecondary level, new policy initiatives must be implemented to address the needs specific to this ethnic community. Also, new and ongoing research efforts should continue to learn of the factors that contribute to the achievement gap between Latinos and whites in postsecondary education (Garcia, 2001), and thus position Latinos for success.

METHODOLOGY

Purpose of Study

By the year 2025, 25 % of all students enrolled in grades K through 12 will be Latinos (Gregory, 2003). Therefore, it is imperative to improve the academic achievement for these students. This student population has already reached these levels in four states: California, Florida, New York, and Texas. By improving academic success of Latino students, the country will be meeting human capital and workforce needs. Due to the increasing Latino population in Oregon, there should also be an increase of Latinos enrolled in institutions of higher education. However, Latino students across the state of Oregon have been and continue to be under-represented in institutions of higher education. A greater presence of Latino students in educational institutions of Oregon is very important so as to reflect the presence and influence of this community and optimize their contributions to the society as a whole.

The purpose of this research was to address the factors that motivate Latino students to pursue postsecondary education in selected colleges in the state of Oregon. In addition, the study explored the effects of personal and environmental factors on the academic self-efficacy of Latino students enrolled at five selected colleges across the state of Oregon. The framework of this study was adapted from Banduras's social cognitive theory (1986). The objectives and research questions guiding this study included:

1. Describe the demographic characteristics of the students.

    a) What is the percentage of female students compared with male students?

    b) What are the ages of the students?

    c) What are the students' countries of origin?

    d) What are the percentages of distribution of students' parents' levels of education?

    e) What are the students' parents' levels of annual income?

2. Describe students' motivation related to family factors.

    a) What are the students' mean scores of motivation by their mothers?

    b) What are the students' mean scores of motivation by their fathers?

    c) What are the students' mean scores of motivation by their friends?

    d) What are the students' mean scores of motivation by their teachers?

    e) What are the students' mean scores of motivation based on their gender?

    f) What are the students' mean scores of motivation based on their ages?

    g) What are the students' mean scores of motivation based on their parents' annual income?

    d) What are the students' mean scores of motivation based on their countries of origin?

3. Describe students' self-efficacy related to gender, age, and type of college.

a) What are the students' self-efficacy mean scores based on their gender?

b) What are the students' self-efficacy mean scores based on their ages?

c) What are the students' self-efficacy mean scores based on type of college?

4. Describe students' personal goal orientation.

a) What are the students' personal goal orientation mean scores based on their gender?

b) What are the students' personal goal orientation mean scores based on their ages?

c) What are the students' personal goal orientation mean scores based on type of college?

d) What are the students' personal goal orientation mean scores based on their primary language?

e) What are the students' personal goal orientation mean scores based on position in their families?

5. Describe students' academic self-efficacy.

a) What is the summated level of academic self-efficacy based on their gender?

b) What is the summated level of academic self-efficacy based on their ages?

c) What is the summated level of academic self-efficacy based on type of college?

6. Describe what independent variables explain the greatest variance in academic self-efficacy.

a) What are the relationships between independent variables (general self-efficacy, institution, family, and personal factors) and academic self-efficacy?

b) Which independent variable accounts for the greatest variance in academic self-efficacy?

c) What is the percentage of variance explained by institution?

d) What is the percentage of variance explained by personal factors?

e) What is the percentage of variance explained by family factors?

f) What is the percentage of variance explained by general self-efficacy?

7. Describe students' choice of agriculture as a program to pursue higher education.

a) What percentage of respondents took agriculture classes in high school?

b) What percentage of respondents took agriculture classes in college?

c) What is the percentage of students enrolled in agriculture classes in college?

d) What is the percentage of students enrolled in agriculture classes in college based on their ages?

Design of the Study

The research design and procedures were developed to describe the problem, the population, how the sample was selected, and the process used to survey the group. Four variables, or motivating factors, were examined: family, self-efficacy, institutional, and personal factors. The study was designated to further illuminate how these factors (variables) affected Latino students' academic achievements (academic self-efficacy) in selected colleges in the state of Oregon. A pilot study was conducted at one of the four-

year institutions to collect and consolidate several factors o variables that motivated Latino students to pursue higher education. The theoretical framework for this study was adapted from the theory of social cognitive by Albert Bandura (1986).

Setting for Data Collection

The setting for the data collection in this study was conducted with 221 undergraduate Latino students in five colleges in the state of Oregon, described as follows:

• College # 1. It is located in a city in the central part of the state of Oregon with an urban population of 31,391 Latinos (US Census, 2010).

• College # 2. It is located in a city in the north part of the state of Oregon with an urban population of 54,875 Latinos (US Census, 2010).

• College # 3. It is located in a city in the south part of the state with an urban population of about 12,182 Latinos (US Census, 2010).

• College # 4. It is located in a rural community in the southwest part of the state with a population of 4,030 Latinos (US Census, 2010).

• College # 5. It is located in a rural community in the west part of the state with a population of 1,277 Latinos (US Census, 2010).

Target Population

The target population in this study consisted of Latino undergraduate students enrolled at the above-mentioned institutions. Institutions of higher education across the

state of Oregon located in communities with a high Latino population were contacted by phone and by internet. Some institutions refused to participate in this research for different reasons. However, three two-year and two four-year institutions decided to participate. Directors of programs involved Latino students of the institutions that agreed to participate were visited and explained the benefits of this investigation. After permission was granted by directors of programs, the survey was personally administered in classrooms only to Latino students at the five participant institutions. The survey included an initial letter of introduction asking the students to participate in this study. Basic demographic information was collected and analyzed from all participants about their personal characteristics such as status, nationality, age, gender, parents' education, and parents' annual income.

Instrumentation

The survey (instrument) was designed to assess the academic self-efficacy of Latino college students under the social cognitive framework. All questions on the survey focused upon four factors that motivated Latinos to pursue higher education in colleges across Oregon: self-efficacy, institutional, personal goal orientation, and family. Specifically, the study examined environmental and personal constructs related to the students' academic self-efficacy, as well as demographic questions. The instrument packet included psychological measures that further assessed independent variables (demographic characteristics, family, personal, self-efficacy, and institutional factors). The survey responses were analyzed for statistical purposes using an adapted 6- point

Likert-type response scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Slightly Disagree, 4 = Slightly Agree, 5 = Agree, and 6 = Strongly Agree.

Reliability of the Scales

This chapter includes descriptive statistics for characteristics of the sample, for the measurement items, and for the independent and dependent variables. Pearson correlation took account some components of the academic self- efficacy scale, self-efficacy scale, personal goal orientation scale, institutional environment scale, and the parental/educational encouragement scale. Given an alpha of .05, findings are presented in terms of academic self-efficacy as dependent variable affected by internal factors (personal goal orientation) and external factors (self-efficacy, institutional, and family) as in dependent variables. The scales' reliabilities range from .77 to .93 (see table 1). Descriptive statistics and correlations are also presented.

Table 1

Reliability of the scales

	Scales	Pilot Study N = 35	Post hoc N = 221
Educational Parental [a]		.88	.92
	Mother Encouragement	.85	.90
	Father Encouragement	.79	.93
	Friend Encouragement	.84	.89
	Teacher Encouragement	.85	.78
Institutional Environment [a]		.79	.82
Personal Goal Orientation [a]		.58	.79
Self-Efficacy [a]		.78	.84
Academic Self-Efficacy		.84	.77

[a] Independent Variables, Dependent Variable

Scales Administered

The scales administered to a sample of 221 Latino college students in five selected colleges in the state of Oregon are described:

The academic self-efficacy scale. This scale assesses student beliefs about his or her personal abilities to complete school work successfully (based on Roeser, Midgley & Urdan, 1996). The scale employed the 6-point Likert-type responses as described above. Alpha reliability for the scale administered to students was .77. The scale consisted of six

questions, some of which asked students to respond “I am certain I can master the skills taught in school this year”, “I can do even the hardest work school work if I try”, and “I am certain I can figure out how to do the most difficult school work.”

The self-efficacy scale. This scale assesses the belief that one’s actions are responsible for successful results. This scale has been used to predict conceptual relationships within vocational, educational, and military fields, all of which have provided evidence of construct validity (Sherer, 1982). The original scale was developed by Schwarzer and Jerusalem in 1981 in Germany and it has been translated to many languages. The scale employs the 6-point Likert-type response as described before. Alpha reliability for the scale administered to students was .84. The scale consisted of 10 questions, some of which asked students to respond “I can usually handle whatever comes my way”, “When I am confronted with a problem, I can usually find several solutions”, or “I am confident that I could deal efficiently with unexpected events.”

The parental/educational encouragement scale modified. This scale measured students’ perceptions of educational encouragement from parents, friends, and teachers. Originally the scale assessed parental encouragement of education and consisted of 12 items. The scale was based on Gloria (2001) and it was modified for Castillo (2001). Originally the scale was developed to assess only parental encouragement of education. However, for this study, the scale includes encouragement from friends and teachers that have proved decisive in evaluating Latino students’ academic achievements (Gandara, 1995). Alpha reliability for the scale administered to students was .92 and its validity is provided by approximately 150 research studies. The scale consisted of 22 questions, some of which included “My mother believes I will complete my college degree”, “My

father values my efforts to get a college degree", "My friends talk with me about my college course work", and "My teachers are interested in my general college experiences."

The institutional environment scale. This scale evaluates the psychological factors related to academic persistence of undergraduate students. It has been widely used in student living groups, program evaluation, and student counseling. This scale focuses on student-to-student and student-to-staff relationships. Based upon Payakkakom (2008), the Alpha reliability for the scale administered to students was .82, and consisted of 14 questions, some of which included "The college seems to value minority students", "Faculty has been available to help me make course choices", and "I do not feel valued as a student on campus."

The personal goal orientation scale. This scale determines students' reasons for engaging in academic work. It is based upon the Manual for the Patterns of Adaptive Learning Scales (PALS, 2000) from work done by Midgley et al. (2000) at the University of Michigan. Alpha reliability for the scale administered to students was .79. The scale consisted of 5 questions, some of which included "I like class work best when it really makes me think", "I do my class work because I am interested in it", and "I like class work that I will learn from even if I make a lot of mistakes."

Demographic characteristics of students. The instrument included a demographic sheet with a total of 24 questions that inquired about age, gender, status, future plans, position within their families, principal language, distance to college, part-time work, financial aid, and grade point average (GPA). Demographic questions also included inquired parents' levels of education, parent's occupation, and parents' income.

To ensure consistent information about the characteristics of students, basic demographic information was also collected on the survey instrument.

Pilot Study

The survey instrument was applied to a group of 35 students enrolled at college # 4 to scrutinize the instrument for its validity and to ensure that it accomplished the objectives of this study. The reliability for this study was determined (see table 1). A panel of experts made suggestions and constructive feedback for clarity in an effort to strengthen the instrument. The final instrument was applied by researcher in classrooms where Latino students enrolled in five selected colleges in the state of Oregon during the winter and spring terms of 2011.

Data Collection

The final instrument for evaluation included a questionnaire of 82 items that allowed respondents to provide other important reasons for enrollment and their achievement in college. The statements within the questionnaire were ranked from 1 to 6, 1 being the least important (strongly disagree) and 6 being the most important (strongly agree). Thus, the highest number had the greatest weight and the lowest number carried the least importance. Data collection began after the Institutional Review Board for Research (IRB) granted approval.

The researcher identified the colleges in the state of Oregon with high populations of Latino students and contacted directors of programs for these students. The researcher visited these directors and explained the purpose of the study to obtain permission to

survey the Latino students. After permission was granted to visit classrooms, the researcher personally administered the survey. An attached consent letter explained the importance of the study and the significance of their honest responses. This letter also stated that their participation was strictly voluntary. It clarified questions that the students possessed before they decided to participate. The consent letter provided the name of the researcher, the topics, and a brief summary of the study. This letter also ensured confidentiality of the respondents' answers. After the college granted permission to conduct the research, the letter and the survey were delivered in person at each classroom from the five selected colleges where Latino students were enrolled.

Data Analysis

Students participating in this study identified some influencing factors that motivated them to pursue higher education. Upon completion of the study, data were analyzed using an appropriate statistical analysis package. The results of this study were quantified and incorporated into the statistical procedure. Descriptive data was analyzed and presented in percentages, means, standard deviation, and degrees of variance. The four influencing or motivating factors were considered as independent variables (general self-efficacy, institutional, family, and personal factors). For the purpose of this study, academic self-efficacy was considered a dependent variable. The study also identified strengths of relationships and associations among independent variables.

Role of Researcher

The role of the researcher in this study has been to identify factors that influence or motivate Latino students who pursue higher education in the state of Oregon. The researcher knew the issues, questions, and concerns that this ethnic minority group faces when enrolled in college. The researcher's goal is to assist more Latino students take advantage of education as the key to fulfill their "American Dream."

Summary

This chapter provided a detailed description of the research methods used in this study. These included a description of the sampling design, the study measures, data collection, processing, and data analysis procedure. The research design and data collection procedures were reviewed in detail. The following areas were likewise addressed: purpose of study, design of study, setting for data collection, target population, instrumentation (survey), pilot survey, data collection, data analysis, role of researchers, summary, and demographic data.

RESULTS

The purpose of this study was to explore how personal and environmental factors influence the academic self-efficacy, according to Bandura's social cognitive theory, of Latino students enrolled at five selected colleges across the state of Oregon. The study analyzed the association between independent variables (self-efficacy, family, personal goal orientation, and institutional factors) and a dependent variable (academic self-efficacy). Moreover, this study examined the influence of these factors in motivating Latino students to pursue higher education. Data from research conducted from 221 Latino undergraduate students (115 females and 106 males) were analyzed for seven formulated objectives and their respective research questions. Objectives and research questions included:

1. Describe the demographic characteristics of the students.

    a) What is the percentage of female students compared with male students?

    b) What are the ages of students?

    c) What are the students' countries of origin?

    d) What are the percentages of distribution of students' parents' levels of education?

    e) What are the students' parents' levels of annual income?

2. Describe students' motivation related to family factors.

    a) What are the students' mean scores of motivation by their mothers?

    b) What are the students' mean scores of motivation by their fathers?

c) What are the students' mean scores of motivation by their friends?

d) What are the students' mean scores of motivation by their teachers?

e) What are the students' mean scores of motivation based on their gender?

f) What are the students' mean scores of motivation based on their ages?

g) What are the students' mean scores of motivation based on their parents' annual income?

f) What are the students' mean scores of motivation based on their countries of origin?

3. Describe students' self-efficacy related to gender, age, and type of college.

a) What are the students' self-efficacy mean scores based on their gender?

b) What are the students' self-efficacy mean scores based on their ages?

c) What are the students' self-efficacy mean scores based on type of college?

4. Describe students' personal goal orientation.

a) What are the students' personal goal orientation mean scores based on their gender?

b) What are the students' personal goal orientation mean scores based on their ages?

c) What are the students' personal goal orientation mean scores based on type of college?

d) What are the students' personal goal orientation mean scores based on their primary language?

e) What are the students' personal goal orientation mean scores based on position in their families?

5. Describe students' academic self-efficacy.

a) What is the summated level of academic self-efficacy based on their gender?

b) What is the summated level of academic self-efficacy based on their ages?

c) What is the summated level of academic self-efficacy based on type of college?

6. Describe what independent variables explain the greatest variance in academic self-efficacy.

a) What are the relationships between independent variables (self-efficacy, institution, family, and personal factors) and academic self-efficacy?

b) Which independent variable accounts for the greatest variance in academic self-efficacy?

c) What is the percentage of variance explained by institution?

d) What is the percentage of variance explained by personal factors?

e) What is the percentage of variance explained by family factors?

f) What is the percentage of variance explained by self-efficacy?

7. Describe students' choice of agriculture as a program to pursue higher education.

a) What percentage of respondents took agriculture classes in high school?

b) What percentage of respondents took agriculture classes in college?

c) What is the percentage of students enrolled in agriculture classes in college?

d) What is the percentage of students enrolled in agriculture classes in college based on their ages?

Objective 1: Describe the demographic characteristics of the students.

a) What is the percentage of females compared with males?

Table 1.1

Percentage of female students compared with male students

Gender	N	%
Female	115	52
Male	102	46
Missing	4	2
Total	221	100

b) What are the ages of the students?

Table 1.2

Age categories of students

Age	N	%
18-22	165	75
23-27	16	7
> 28	31	14
Missing	9	4
Total	221	100

c) Where are the students' countries of origin?

Table 1.3

Students' countries of origin

Country	N	%
United States	130	59
Mexico	75	34
Latin America	16	7

d) What are the percentages of distribution of mother and father levels of education?

Table 1.4

Education levels of the students' parents

	Father		Mother	
	N	%	N	%
Without Education	10	5	5	2
Elementary	105	48	101	46
High School	53	24	60	27
Community College	12	6	16	7
University	7	3	13	6
Total	221	100	221	100

e) What are the students' parent levels of annual income?

Table 1.5

Students' parents level of annual income.

Thousand Dollars	N	%
< 20	58	26
20 – 45	115	52
45 – 70	29	13
> 70	8	4

Objective 2: Describe the student's motivation related to family factors.

a) – d) What are the students' mean scores of encouragement based on sub constructs of mothers, fathers, friends, and teachers?

The Parental Encouragement Scale assessed students' perception of their parents, friends, and teachers who encouraged their behaviors, interests, and motivation to achieve academic success.

Table 2.1

Students' mean scores of encouragement related to family factors

Factor	Mean	SD
Mother	4.90	1.04
Father	4.35	1.38
Friends	4.74	.98
Teacher	4.61	.75

Note. Parental encouragement scale Likert-type from 1 (strongly disagree) to 6 (strongly agree). Adapted from Castillo, E. M. (2001). *Psychosociocultural predictors of academic persistence decisions for Latino adolescents*. (Doctoral dissertation, University of Wisconsin-Madison).

Students were asked to rate their scores of encouragement from their parents, friends, and teachers. Mothers were the persons that encouraged the most Latino students' decisions to pursue higher education.

e) What are the students' mean scores of encouragement based on their gender?

Table 2.2

Students' mean scores of encouragement based on their gender

Gender	Mean	SD
Female (N = 115)	4.72	.73
Male (N = 102)	4.61	.71

Note. Parental encouragement scale, Likert-type from 1 (strongly disagree) to 6 (strongly agree). Adapted from Castillo, E. M. (2001). *Psychosociocultural Predictors of Academic Persistence Decisions for Latino Adolescents*. (Doctoral dissertation, University of Wisconsin-Madison).

Based on students' responses, data was analyzed and mean scores of encouragement related to students' gender were higher for female than for male students.

f) What are the students' mean scores of encouragement based on their ages?

Table 2.3

Students' mean scores of encouragement based on their ages

Age	Mean	SD
18 – 22 (N = 165)	4.75	.62
23 – 27 (N = 16)	4.53	.93
> 28 (N =31)	4.37	.97

Note. Parental encouragement scale, Likert-type from 1 (strongly disagree) to 6 (strongly agree). Adapted from Castiloo, E.M. (2001). *Psychosociocultural Predictors of Academic Persistence Decisions for Latino Adolescents*. (Doctoral dissertation, University of Wisconsin-Madison).

Students were asked to rate their scores of encouragement, then the data were analyzed based on their ages. Younger students reported high scores of encouragement

than older students. On the opposite, students older than 28 reported the lowest mean scores of encouragement based on their age.

g) What are the students' mean scores of encouragement based on their parents' annual income?

Table 2.4

Students mean scores of encouragement based on parents' annual income

Dollars	Mean	SD
< 20,000	4.12	.52
20 – 45	4.65	.64
45 – 70	4.92	.50
> 70	4.88	.92

Note. Parental encouragement scale, Likert-type from 1 (strongly disagree) to 6 (strongly agree). Adapted from Castillo, E. M. (2001). *Psychosociocultural Predictors of Academic Persistence Decisions for Latino Adolescents*..(Doctoral dissertation, University of Wisconsin-Madison).

Students were asked to rate their scores of encouragement; data analyzed reported that students with parents with high annual income had high scores of encouragement. On the other hand, students with low annual income reported low scores of encouragement.

h) What are the students' mean scores of encouragement based on their countries of origin?

Table 2.5

Students' mean scores of encouragement based on their countries of origin

Country	Mean	SD
USA (N = 130)	5.13	.65
Mexico (N = 75)	5.34	.90
Latin America (N = 16)	3.70	.60

Note. Parental encouragement scale, likert-type from 1 (strongly disagree) to 6 (strongly agree). Adapted from Castillo, E. M. (2001). *Psychosociocultural Predictors of Academic Persistence Decisions for Latino Adolescents*. (Doctoral dissertation, University of Wisconsin-Madison).

Students were asked to rate their levels of perceived encouragement. The data analyzed reported highest mean scores of encouragement for students from Mexico.

Objective 3: Describe students' self-efficacy related to gender, age, and type of college.

a) What are the students' self-efficacy mean scores for males and females?

Psychologist Albert Bandura has defined self-efficacy as our belief in our ability to succeed in specific situations. The concept of self-efficacy lies at the center Bandura's social cognitive theory, and according to his theory, people with high self-efficacy are those who believe they can perform well in difficult situations. Latino students' self-

efficacy regarding their gender, age, and type of college chosen (among selected colleges in the state of Oregon) was assessed.

Table 3.1

Students' self-efficacy mean scores based on their gender

Gender	Mean	SD
Female (N = 115)	4.64	.66
Male (N = 102)	4.49	.56

Note. Self-efficacy scale Likert-type from 1 (strongly disagree) to 6 (strongly agree). Adapted from Schwarzer, R., & Jerusalem, M. (1995). Generalized Self-Efficacy scale. In J. Weinman, S. Wright, & M. Johnston, *Measures in Health Psychology: A User's Portfolio. Causal and Control Beliefs* (p. 35-37). Windsor, UK: NFER-NELSON.

Students were asked to rate their levels of self-efficacy, and the data were analyzed according to their gender. Female students reported higher mean scores of self-efficacy than male students.

b) What are the students' self-efficacy mean scores based on their ages?

Table 3.2

Students' self-efficacy mean scores based on their ages

Age	Mean	SD
18 – 22 (N = 165)	4.67	.56
23 – 27 (N = 16)	4.51	.76
> 28 (N = 31)	4.20	.62

Note. Self-efficacy scale Likert-type from 1 (strongly disagree) to 6 (strongly agree). Adapted from Schwarzer, R., & Jerusalem, M. (1995). Generalized Self-Efficacy scale. In J. Weinman, S. Wright, & M. Johnston, *Measures in Health Psychology: A User's Portfolio. Causal and Control Beliefs* (p. 35-37). Windsor, UK: NFER-NELSON.

Students were asked to rate their levels of self-efficacy, and the data were analyzed according to their ages. Highest scores of self-efficacy were reported for students between 18 and 22 years old.

c) What are the students' self-efficacy mean scores based on type of college?

Table 3.3

Students' self-efficacy mean scores based on type of college

College	Mean	SD
Two Year [a] (N = 122)	4.41	.61
Four year (N = 99)	4.74	.49

Note. Self-efficacy scale Likert-type from 1 (strongly disagree) to 6 (strongly agree). Adapted from Schwarzer, R., & Jerusalem, M. (1995). Generalized Self-Efficacy scale. In J. Weinman, S. Wright, & M. Johnston, *Measures in Health psychology: A User's Portfolio. Causal and Control Beliefs* (p. 35-37). Windsor, UK: NFER-NELSON.
[a] two-year institution, □ four-year institution.

Students were asked to rate their levels of self-efficacy, and the data were analyzed according to their ages. Data was specific for three two-year and for two four-year institutions. The highest score of self-efficacy based on students' responses corresponded to four-year institutions.

Objective 4: Describe students' personal goal orientation.

Personal goal orientation refers to whether individuals personally set more challenging, suitable, and effective goals (VandeWalle et al, 2001). For this study, personal goal orientation assessed an individual disposition of Latino college students toward developing his or her ability in an academic goal.

a) What are the students' personal goal orientation mean scores based on their gender?

Table 4.1

Students' personal goal orientation mean scores based on their gender

Gender	Mean	SD
Female (N =115)	4.88	.61
Male (N = 102)	4.74	.77

Note. Personal goal orientation scale Likert-type from 1 (strongly disagree) to 6 (strongly agree). Adapted from Midgley et al. (2000). Manual for the Patterns of Adaptive Learning Scales (PALS), University of Michigan.

Students were asked to rate their levels of personal goal orientation, and the data analyzed based on their gender revealed mean scores higher for female than for male students.

b) What are the students' personal goal orientation mean scores based on their ages?

Table 4.2

Students' personal goal orientation mean scores based on their ages

Age	Mean	SD
18 – 22 (N = 165)	4.70	.68
23 – 27 (N = 16)	5.06	.59
> 28 (N = 31)	5.25	.61

Note. Personal goal orientation scale Likert-type from 1 (strongly disagree) to 6 (strongly agree). Adapted from Midgley et al. (2000). Manual for the Patterns of Adaptive Learning Scales (PALS), University of Michigan.

Students were asked to rate their levels of personal goal orientation, and the data were analyzed based on their ages. Higher scores of encouragement based on students' ages corresponded to students older than 28 years of age.

c) What are the students' personal goal orientation mean scores based on type of college?

Table 4.3

Students' personal goal orientation mean scores based on type of college

College	Mean	SD
Two Year [a] (N = 122)	5.00	.68
Four Year (N = 99)	4.66	.65

Note. Personal goal orientation scale Likert-type from 1 (strongly disagree) to 6 (strongly agree). Adapted from Midgley et al. (2000). Manual for the Patterns of Adaptive Learning Scales (PALS), University of Michigan.
[a] two-year institution, -year institution.

Students were asked to rate their levels of personal goal orientation, and the data analyzed reported higher mean scores of personal goal orientation for a two-year institution (M = 5.0) than for a four-year institution (M = 4.7).

d) What are the students' personal goal orientation mean scores based on primary language?

Table 4.4

Students' personal goal orientation mean scores based on primary language

Language	Mean	SD
Spanish (N = 149)	4.87	.63
English (N = 65)	4.67	.81

Note. Personal goal orientation scale Likert-type from 1 (strongly disagree) to 6 (strongly agree). Adapted from Midgley et al. (2000). Manual for the Patterns of Adaptive Learning Scales (PALS), University of Michigan.

Students were asked to rate their levels of personal goal orientation, and the data were analyzed based on their primary language. Higher scores of personal goal orientation based on primary language were reported for students that speak Spanish.

e) What are the students' personal goal orientation mean scores based on t heir position in the family?

Table 4.5

Students' personal goal orientation mean scores based on their position in the family

Position	Mean	SD
Oldest (N = 81)	4.78	.56
Middle (N = 81)	4.77	.80
Youngest (N = 49)	4.88	.69

Note. Personal goal orientation scale Likert-type from 1 (strongly disagree) to 6 (strongly agree). Adapted from Midgley et al. (2000). Manual for the Patterns of Adaptive Learning Scales (PALS), University of Michigan.

Students were asked to rate their levels of personal goal orientation, and the data analyzed based on their position in their families. Higher scores of personal goal orientation were reported for students in the youngest position within their families.

Objective 5: Describe students' academic self-efficacy.

Academic self-efficacy refers to an individual's confidence that they can successfully achieve or attain a specific academic goal (Bandura, 1997; Eccles & Wigfield, 2002). Many researchers illustrate that self-efficacy affects academic motivation, learning, and achievement (Schunk, 1995). It influences task choice, effort, resilience, and achievement (Bandura, 1997; Schunk, 1995).

a) What are the students' academic self-efficacy mean scores based on their gender?

Table 5.1

Students' academic self-efficacy mean scores based on their gender

Gender	Mean	SD
Female (N =115)	4.88	.64
Male (N = 102)	4.98	.58

Note. Academic self-efficacy scale Likert-type from 1 (strongly disagree) to 6 (strongly agree). Adapted from Roeser et al. (1996). "Perceptions of the School Psychological Environment and Early Adolescents' Psychological and Behavioral Functioning in School: The Mediating Role of Goals and Belonging." Journal of Educational Psychology, 88(1), 408-422.

Students were asked to rate their mean scores of academic self-efficacy; data analyzed reported higher scores for male than female students.

b) What are the students' academic self-efficacy mean scores based on their ages?

Table 5.2

Students' academic self-efficacy mean scores based on their ages

Age	Mean	SD
18 – 22 (N = 165)	4.89	.60
23 – 27 (N = 16)	4.99	.57
> 28 (N = 31)	5.05	.61

Note. Academic self-efficacy scale Likert-type from 1 (strongly disagree) to 6 (strongly agree). Adapted from Roeser et al. (1996). "Perceptions of the School Psychological Environment and Early Adolescents' Psychological and Behavioral Functioning in School: The Mediating Role of Goals and Belonging." Journal of Educational Psychology, 88(1), 408-422.

Students were asked to rate their mean scores of academic-self-efficacy. Data analyzed reported higher scores of academic self-efficacy for students older than 28 years.

c) What are the students' academic self-efficacy mean scores based on type of college?

Table 5.3

Students' academic self-efficacy mean scores based on type of college

College	Mean	SD
Two Year[a] (N = 122)	4.94	.65
Four Year (N = 99)	4.89	.66

Note. Academic self-efficacy scale Likert-type from 1 (strongly disagree) to 6 (strongly agree). Adapted from Roeser et al. (1996). "Perceptions of the School Psychological Environment and Early Adolescents' Psychological and Behavioral Functioning in School: The Mediating Role of Goals and Belonging." Journal of Educational Psychology, 88(1), 408-422. [a] two-year institution, four-year institution.

Participants were asked to rate their scores of academic self-efficacy according to type of college. Data were analyzed and students reported higher scores of academic self-efficacy for a two-year institution (M = 4.94) than for a four-year institution (M = 4.89).

Objective 6: Describe what independent variable explains the greatest variance in academic self-efficacy.

Academic self-efficacy is simply defined as a person's level of confidence in his or her ability to successfully perform a given academic task (Gore, 2006). Self-efficacy is the most influencing factor on student academic behavior (Bandura, 1997).

a) What is the relationship between independent variables (self-efficacy, personal goal orientation, institutional, and family) and a dependant variable (academic self-efficacy)?

b) Which independent variable accounts for the greatest variance in academic self-efficacy?

Table 6.1

Relationship between independent and dependent variables

Factor	Institutional	Family	Personal	Academic self-efficacy
Self-efficacy	.330*	.342*	.537*	.785*
Institutional		.406*	.222*	.373*
Family			.239*	.331*
Personal				.537*

*$p < 0.05$

Data analysis revealed that students' self-efficacy reported the greatest variance for academic-self-efficacy. Even though other factors were significant at the 0.05 level,

this study was focused on factors that accounted for the greatest variance in academic self-efficacy.

c – f) What is the percentage of variance in academic self-efficacy explained by Institution, personal goal orientation, family, and self-efficacy?

Table 6.2

Percentage of variance in academic self-efficacy explained by independent variables

	% Variance			
	Institutional	Personal	Family	Self-Efficacy
Academic Self-Efficacy	14	29	11	62

Data analyzed revealed that the highest percentage of variance (62 %) corresponded to the self-efficacy factor. The lowest percentages of variance were reported for the family factors (11 %). Variance is defined as the average of the squared differences from the Mean.

Objective 7: Describe students' choice of agriculture as a program to pursue higher education.

a) What is the total number of students that took agriculture classes in high school?

Table 7.1

Total number of students that took agriculture classes in high school

Agriculture Classes	No Agriculture Classes
47	156

According to students' responses, 77 % did not take any agriculture classes while attending high school. 8 % of participants did not answer this question (18 students).

b) What is the total number of students that took agriculture classes in college?

Table 7.2

Total number of student that took agriculture classes in college

Agriculture Classes	No Agriculture Classes
17	191

Students were asked if they took any agriculture class when attending college; data analyzed revealed that only 8 % of the total number of participant students took agriculture classes in college. On the other hand, 92 % of students did not take any agriculture classes in college. 6 % of participants did not answer this question (13 students).

c) What is the total number of males and females enrolled in agriculture classes in college?

Table 7.3

Total number of female and male students that took agriculture classes in college

	Agriculture Classes	No Agriculture Classes
Female	8	156
Male	9	86

Data analyzed showed only one male student more than females in agriculture classes while enrolled in college. Consequently, a higher number of female than male students did not take any agriculture classes in college.

d) What is the total number of students enrolled in agriculture classes in college based on their ages?

Table 7.4

Total number of students enrolled in agriculture classes in college based on their age

Age	Yes	No
18 - 22	11	5
23 - 27	4	2
> 28	2	1

Data analyzed reported there were more students aged 18 to 22 who took agriculture classes in college than other age groups. However, only a small percentage of students (8 %) took any agriculture class in college.

Summary

Results from the preliminary data checks and analysis were presented in this chapter. Pearson correlations that were significant were examined at a two-tailed alpha of 0.05. Findings were presented in terms of academic self-efficacy that is affected by internal and external factors. Results were also described according to each formulated objective and each research question was answered. Tables were numbered orderly by each objective. Results and findings were specific to the participant colleges and students who decided to participated in this research.

DISCUSSION

The purpose of the present study has been to examine the impact of personal and environmental factors on academic self-efficacy in Latino students enrolled in selected colleges in Oregon during the winter and spring semesters of 2011. Researchers claim that individual characteristics of Latino students such as general self-efficacy and motivation contribute to their academic success. In addition, this study highlights the significant role of parents, friends, and teachers in influencing school performance of Latino students (Campos, 2008).

The less-favorable academic performance and higher dropout rates of Latino youth (National Center for Educational Statistics, NCES, 2008) represent a national challenge for educators and administrators of institutions of higher education within the American school system. As a result, there is a significant interest in promoting the academic success of Latino students. If by the year 2025, 25 % of all K through 12 students will be Latinos (Gregory, 2003), it is imperative to improve the academic achievement for these students. This student population has already reached the aforementioned levels in four states, California, Florida, New York, and Texas, and researchers call for an action on what they identify as a national crisis. In Oregon, the increasing Latino population also represents an increase of Latinos enrolled in institutions of higher learning. However, Latino students have been and continue to be under-represented in institutions of higher education. Neither the Oregon educational system, the economy, nor the state's industry can afford to relegate so many young people to the

margins of society. Consequently, the Latino population represents a critical challenge for the American educational system and improving the academic success of Latinos students in educational institutions of higher learning is vital.

Although academic indicators such as ACT/SAT scores and GPA have traditionally been used to predict academic success in college students, academic self-efficacy was evaluated in this study. A comparison between independent variables (self-efficacy, family, institutional, and personal factors) and a dependent variable (academic self-efficacy) was made using Bandura's social cognitive theory (1986). After the analysis of data from 221 Latino students enrolled in three two-year institutions (college #s 1 through 3) and two four-year institutions (college # 4 and college # 5), the following findings arose:

Objective 1: Describe the characteristics of the respondents.

This study examined several characteristics of students, such as percentage of male and female, ages, countries of origin, parents' level of education, and parents' level of annual income. For this study, it was found that the percentage of women (52 %) enrolled in the selected colleges in Oregon was almost equal to the percentage of men (46 %). In relation to age, the highest percentage of students was between 18 and 22 years old. Results of this study for students' countries of origin reported the United States as the highest-percentage country of origin (59 %), followed by students of Mexican origin (34 %). The rest of the students reported countries such as Peru, Chile, Guatemala, and

Honduras in small percentages (7 %). Researchers claimed that countries of origin can have a profound impact upon student motivation and success in school (Tripp, 2011).

This research reported that a higher percent of Latino parents had obtained only an elementary education (46 % for mothers, 48 % for fathers), followed by high school level of education (27 % for mothers and 24 % for fathers). Latino parents with a college degree were reported in small percentages (13 % for mothers 9 % for fathers). Researchers have found that Latino parents with minimal educational aspirations had children with similarly low educational aspirations (Behnke, Pierey, & Diversi, 2004).

Objective 2: Describe the student's motivation related to family factors.

Results from this analysis revealed the students' expectations and perceptions of encouragement they received from mothers, fathers, friends, and teachers. Responses from students indicated that the most motivating person behind Latino students' desire to pursue higher education in selected colleges in Oregon was his or her mother, followed by friends. In relation to gender, participants reported almost similar mean scores of encouragement for male and female students. However, students' mean scores of encouragement were higher for younger students (18 – 22 years old) than for older students.

One of the research questions of this objective was to examine the mean scores of motivation based on students' parent annual income. Students reported highest scores of motivation from their parents with high annual income (equal or higher than 45 thousand dollars). Perhaps Latino parents with low income (lower than 45 thousand dollars) do not

have the necessary resources to adequately support their children in following their paths to secondary education.

Other researchers believe that Latino fathers who were migrant workers encouraged their adolescent children to drop out of school to help the family reach financial goals (Bohon et al., 2005). Researchers believe that many Latino parents lack knowledge of the United States' educational system (Ceballo, 2004), while others state that Latino parents have limited English skills. Meanwhile, because of their jobs, Latino parents lack time to spend time with their children, which confine their attention to their children's academic success (Parra et al, 2008).

Objective 3: Describe students' self-efficacy related to gender, age, and type of college.

Findings of this study are applied only to participant colleges in the state of Oregon. Students' self-efficacy mean scores were evaluated according to gender, age, and type of college. Higher scores of self-efficacy were reported for female than for male students. Consequently, gender appeared related to Latino students' self-efficacy. On the other hand, mean scores of self-efficacy were higher for younger than for older students. In relation to type of college, highest self-efficacy mean scores corresponded to a four-year institution (college # 5). The institution in which the respondents reported the least self-efficacy mean scores of motivation corresponded to a two-year institution (college # 2).

The growing Latino population has also increased the Latino student population in college, but these students have higher attrition and institutions struggle to develop effective retention programs (Miller & Garcia, 2004). In addition to the above, research has found that college environments influence the student's sense of belonging, especially among Latino students (Johnson et al., 2007). This sense of belonging includes school connections, memberships, bonding, engagement, and affiliation (Osterman, 2000). Martinez (2010) found that student organizations, faculty advisors, family support, and a welcoming campus climate motivate Latino college students positively.

Objective 4: Describe students' personal goal orientation.

For female students, goal orientation was a little higher than for male students. Findings reported significant differences in personal goal orientation were related to the ages of respondents: Highest mean scores of personal goal orientation were reported for students older than 28 years old. Lower mean scores of students' personal goal orientation were also reported for students younger than 28 years old. Goal orientation mean scores were highly influenced by the type of college, so the highest mean score of personal goal orientation in relation to type of college corresponded to a two-year institution (college # 3). Low personal mean scores were reported for a four-year institution (college # 4).

Another variable associated with students' personal orientation was their primary language. Based on students' responses, higher mean scores of personal goal orientation were reported for students who are bilingual than for students who speak only

English.

Regarding students' birth position within their family, personal goal orientation mean scores were higher for students who found themselves in the middle position within their families, followed by the youngest students. The smallest personal goal orientation mean scores based on their position within their families corresponded to oldest students.

As goal orientation refers to one's dispositional or situational goal preferences in achievement situations, it is defined by two aspects: a) Mastery Goal Orientation, known as a Learning Orientation, and b) Performance Orientation. The mastery goal-oriented individuals seek to develop their abilities, while performance-oriented individuals seek to demonstrate their competence (Payne, 2007). Researchers have found that feelings of school belonging were positively influenced by teachers who promoted mastery goal orientation and academic pressure within their classrooms. As a result, school belonging influenced students' mastery goal orientation (Tara et al, 2007). Findings for this study were supported by other studies in the areas of behavior and cognition developed at the Max Planck Institute for Human Development in Berlin, Germany.

Objective 5: Describe the student's academic self-efficacy.

Focusing on gender, age, and type of college, students' academic self-efficacy mean scores were evaluated. Results from this study reported that mean scores of academic self-efficacy were similar for female and male students. However, mean scores of academic self-efficacy were higher for students older than 28 years old than for

younger students. Based on type of college (two- or four-year institutions), highest mean scores of academic self-efficacy (4.94) were reported for students enrolled in a two-year institution. On the opposite, lowest mean scores of academic self-efficacy (4.90) were reported for four-year institutions.

Objective 6: Describe what independent variables explain the greatest variance in students' academic self-efficacy.

Personal and environmental factors were investigated and, specifically, the concept of academic self-efficacy. This study examined the relationship among four independent variables (institutional, family, personal goal orientation, and self-efficacy) and a dependent variable (academic self-efficacy). Findings reported that the greatest percentage of variance for academic self-efficacy corresponded to students' self-efficacy (62 %), followed by personal goal orientation (29 %). Lowest percentages of variance of academic self-efficacy were reported for the family factors (11 %) and for the institutional factors (14 %). These results are supported by other studies, which have found that self-efficacy has some effects on academic outcomes (Zajacova et al. 2001).

Objective 7: Describe students' choice of agriculture as a program to pursue higher education.

One of the objectives of this study was to determine what influenced Latino students' decision to choose to enroll in agriculture programs when pursuing higher education in selected colleges in Oregon. The percentages of students who took any

agriculture classes in high school and in college were analyzed. Gender and ages of these students were also evaluated.

Findings of this study reported that only 47 of 221 (21 %) students took agriculture classes while they were attending high school. When students were enrolled in college, only 17 students (8 %) took any agriculture classes. This indicated that a higher percentage of students (92 %) did not take any agriculture classes when enrolled in college. Findings of this study also reported an almost-identical number of male (9) and female (8) students, and this indicated that gender did not influenced students' decision to enroll in agriculture classes. Concerning the age of students enrolled in an agriculture class, students between the ages of 18 and 22 years took agriculture classes when enrolled in college, followed by students between the ages of 23 and 27 years, and finally by students aged older than 28.

RECOMMENDATIONS

With this study, the researcher hopes to provide a viable approach to the various difficulties that documented and undocumented Latino students face at the selected colleges in Oregon. Institutions of higher education need to act without delay in their efforts to pay attention to educational access and academic achievement for Latino college students. These recommendations are applicable only for Latino students enrolled at the participant colleges.

Objective 1: Characteristics of the respondents.

Latinos have different characteristics related to their educational, cultural, and socioeconomic backgrounds. The Latino population in the United States is composed of people whose roots are from Mexico and Central and South American countries. Even though these peoples were colonized mainly by Spain and Portugal, they differ in education levels, socioeconomic status, ethnicity, and immigration status. In addition, many Latino students face additional stressors related their own parents' limited levels of education and English skills, which hinder their paths to education. As a result, institutions of higher education in Oregon should acknowledge the emotions that students are experiencing when adapting to new places, practices and expectations. Educators should acknowledge the fact that Latino students have arrived from a different country, make them feel welcome in their classrooms, and support them during their school lives. Educators should also know that adapting to the culture and educational atmosphere of the United States is very difficult for Latino students. As a result, the statistics for Latino

dropout rates are considerably higher compared to other ethnic groups. However, through ethnically adaptive instructional techniques, teachers can deal with cultural differences of Latinos. Efforts to ensure enrollment of Latino students in institutions of postsecondary education and support through graduation should be provided to Latino students regardless of their undocumented immigration status. Based on findings of this study, some recommendations can be made:

- Incorporate tutoring programs to tie together Latino families and communities.
- Find out the parents' skills, education levels, socioeconomic statuses, and resources.
- Know the barriers the students face (such as financial limitations).
- Help the students stay connected with his or her cultural roots.
- Interact and connect with students to improve students' sense of belonging.

Objective 2: The students' motivation related to family factors.

Results from this study revealed that family is the most influencing factor for Latino students in pursuing higher education at selected colleges in the state of Oregon. Within the family factors, the research assessed mothers, fathers, friends, and teachers as influencing persons for Latino students' decisions to continue or not postsecondary education. Findings of this research revealed the most motivating factors for Latino college students to pursue higher education at selected colleges in the state of Oregon were their mothers, followed by their friends. Based on the above, the research recommends that institutions of higher education in Oregon reevaluate their policies about Latino mothers' involvement in schools. Specifically, it recommends:

- Targeting and engaging Latino mothers and their communities to improve their participation at school.
- Training Latino mothers as mentors for other mothers in issues related to home-school collaboration.
- Making home visits to Latino mothers to learn from their experiences and expectations.
- Offering seminars focusing on advantages and benefits of postsecondary education.
- Inviting Latino mothers to visit school campuses and classrooms to talk about the school system.
- Providing translators and school information and materials in Spanish.
- Providing ESL and GED classes for mothers of students attending college.
- Keeping parents informed of school events, resources, etc., by periodical letters and online publications.

The Latino parents' socioeconomic status, specifically their education and income, indirectly relates to student's academic achievement (Davis-Kean, 2005). In addition, there are few studies that have examined the influence of parents' actual education level on Latino students' educational aspirations and perceived educational barriers (Ojeda et al, 2008). As a result, institutions of higher education in Oregon should publicize more information in Spanish about their college costs and also should increase financial aid from federal, state, institutional, and private funds to target Latino students.

These institutions must also recognize that many Latino undergraduates are supporting themselves, working many hours every week while attending school. As a result, the participation of public policy-makers at the federal, state, and school districts must seek ways to improve educational and financial opportunities for Latino students who, from the start, have numerous obstacles to overcome.

Latino youths who are supported by their parents, teachers, and friends feel motivated to succeed in their careers (Kenny et al, 2003). Conversely, the absence of such support negatively influences students' career goals and achievements (Brown, 2003). Many researchers believe that the primary factor influencing academic achievement of youth are the attitudes of the surrounding family and people in close relationship (Garg et al, 2007). These factors include mother, father, friends, and teachers. Consequently, when Latino parents encourage college enrollment and demonstrate interest in their children's academic success, their children respond and develop goals to attend college (Swail et al, 2004).

Some researchers have similarly identified negative factors within the Latino families that carry the opposite effect. These include socioeconomic status and/or education level to aggravate educational underachievement of their children (Sanchez et al, 2006). A report from Parent and Family Involvement in Education reported that 88 % of students whose parents had earned a bachelor's degree expected the same of their children, while 44 % of students had parents who had only completed a high school diploma (Lippman et al, 2008).

Objective 3: Institutional factors and students' self-efficacy.

There are many factors that Latino students have to consider when deciding to pursue higher education. These factors include what college to attend, and how to achieve their academic goals. Factors such as location, financial aid offers, and the climate of the college campus itself all make a difference in a student's ability to obtain higher education goals. On the other hand, Schneider and Ward (2003) indicated that Latino students benefit from additional support systems, such as familial support. This support may determine how well students adjust to the overall campus, emotionally and academically. Family support is also one of the main factors ensuring a Latino student's emotional and institutional adjustment, which in turn, positively affect the student's college experience (Schneider & Ward, 2003). Without adequate retention strategies, Latino students will continue to have the lowest college graduation rates in two- and four-year institutions (Solorzano et al., 2005). Research on the relationship between self-efficacy and academic performance for Latino college students is still required.

As the Latino student population is increasing every year in Oregon, the number of Latinos graduating from college should follow. However, these numbers of Latino college graduates in Oregon are not increasing because of several factors that contribute to their failure. According to Stefanie Knowlton, a journalist from *The Statesman Journal*, the Salem-Keizer School District is seeking ways to improve high school graduation rates because one in three of their students did not graduate with their class in 2010. Consequently, nearly 500 students dropped out, while others earned GEDs or enrolled for a fifth year of school.

Some colleges in Oregon actively put forth initiatives to improve Latino recruitment and retention, knowing that obtaining higher college retention rates in Oregon is important for all students, not just Latinos. Nevertheless, if a college is having problems keeping Latino students on course through graduation, that may be an indicator of problems with the campus environment. Likewise, if overall graduation rates are high but those among Latinos are low, this also could be an indicator that the college is not doing enough to support them.

Objective 4: Students' personal goal orientation.

Studies have found that goal orientation is associated with an individual disposition toward developing one's ability in achievement settings. This study reported higher mean scores of personal goal orientation for two-year colleges than for four-year colleges at selected institutions of higher education in the state of Oregon. As a result, it is very important to improve Latino students' personal goal orientation at colleges in Oregon. This could be done by identifying individual psychological factors to facilitate academic achievement and by providing academic counseling at earlier stages of their postsecondary education. Based on the results, the researcher recommends that administrators, staff, and educators of four-year institutions of higher education in Oregon should:

- Study whether a relationship exists between personal goal orientation and school performance of Latino students.

- Evaluate why female Latino students and students older than 28 years old reported higher mean scores of personal goal orientation.
- Assess the different levels of personal goal orientation between two- and four-year institutions among Latino students.

Objective 5: Students' academic self-efficacy.

The present study is only a single step in research related to this critical area of Latino students' academic self-efficacy. Findings reported higher scores of academic self-efficacy for two-year institutions than for four-year institutions. These results indicated that more research is needed to know what influences the academic self-efficacy of Latino students when they are involved in academic instructional activities. Accordingly, administrators and educators in colleges across Oregon should gather updated data on graduation, demographic, and academic performance for Latino high school students to anticipate academic expectations of them. However, more research is recommended to examine the effects of academic self-efficacy on Latino students' academic performance and commitment to remain in school.

Despite their barriers and challenges, Latino students pursue higher education in an attempt to improve their chances for succeeding in United States society, and they see education as a way to achieve it. For Latino college students in Oregon, the decision to pursue higher education is result of many decisions they make or have made throughout their young lives. More research on academic self-efficacy for Latino students is recommended.

Objective 6: Relationships between independent variables and the dependent variable.

This study identified that academic self-efficacy was highly influenced by students' self-efficacy and by their personal goal orientation. Self-efficacy is grounded in a larger school of social cognitive theory, which postulates that human achievement depends on interactions among one's behaviors, personal factors (e.g. thoughts, beliefs), and environmental conditions (Bandura, 1986, 1997). As a result, a growing body of literature supports the relationship between students' self-efficacy and their academic achievement. Lent et al. (1986) have found that students with high sense of self-efficacy achieved better grades than students with a low sense self-efficacy when educational requirements rose. Although much has been written about the factors that contribute to school dropout rates for Latino students, the positive factors that motivate Latino students to achieve academic success are less understood. Results derived from this study suggested that institutions of higher education in Oregon should:

- Promote more interactions between students and faculty outside the classroom.
- Fortify Latino students' social networks, campus-connectedness, and a sense of belonging to the institution by promoting social-community organizations.
- Expand financial aid for Latino college students with no considering their immigration status.
- Use teaching strategies that make a difference to Latino students' self-efficacy, such as:

a) Peer Latino student models (vicarious experience).

b) Other Latino students' successful experiences (mastery experiences).

c) Dissemination of realistic information and feedback to motivate Latino students (verbal persuasion).

d) Verbal encouragement to lower anxiety during exams or presentations.

e) More cooperative learning strategies in classrooms by promoting more cross-race relationships.

Regardless, more research on academic self-efficacy of Latino students in colleges across Oregon is recommended.

Objective 7: Students' choice of agriculture to pursue higher education.

Most of the participant students in this study did not choose an agriculture-related career. Results of this study recognized that colleges in Oregon that look forward to increase the enrollment of Latino students in agriculture programs must know the barriers and challenges that Latino students face deciding to pursue and succeed in higher education. According to a professor from University of Southern Indiana, students have a negative perception of agriculture and agriculture-related careers (McKnight, 2009). Many Latinos view agriculture with negative ideas of labor work, long hours, low salary, and harsh working conditions. This negative perception will continue to challenge institutions of higher education until a solution is found. Consequently, these perceptions of agriculture and careers in agriculture among Latino students enrolled in colleges in

Oregon must be examined, alongside the motivating factors and barriers affecting recruitment of these students. In addition, if agriculture in Oregon is highly affected by the Latino workforce, colleges offering agriculture programs must educate and prepare the Latino agricultural workforce of tomorrow. Enrollment of Latinos in agriculture programs needs attention. Of a total of 251,422 students enrolled in agricultural-related fields in 2008, a small percentage (4.5 %) corresponded to Latino students (FAEIS, 2008). As a result, colleges and universities in the United States continue to struggle in recruiting students from underrepresented groups into agriculture, food, natural resources, and life sciences.

Many participant students in this research did not consider a career in agriculture and they have chosen careers in non-agriculture programs. Consequently, administrators, agriculture educators, and institutions of higher education in Oregon should:

- Expand student opportunities for graduate research, internships, and summer work within industry agricultural settings.
- Enable agriculture professionals to teach agriculture for at least a semester at, or to visit, international Spanish institutions.
- Expose K through 12 Latino students to topics related to agricultural production, such as community gardens, to connect children and to reinforce Latinos' decisions to study agriculture.
- Hire and promote high-quality Latino professors.

● Collaborate together with other institutions to establish agricultural programs and courses specific for Latinos.

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APPENDICES

APPENDIX A

Letter requesting participation

For Participation in a Doctoral Study

Jose Luis Meza Discua
Department of Agricultural Education
112 Strand Agriculture Hall
Oregon State University
E-mail: mezadisj@onid.orst.edu

PO Box 17190
Salem, OR 97305
Phone 503-383-4098
E-mail: jlmd1@hotmail.com

Date: September 7/10

Dear student:

My name is Jose L. Meza D., and I am a doctoral student at Oregon State University. I am writing to request your participation in a study to identify the factors that motivate Latino students, like you, to decide to pursue higher education.

When you receive the questionnaire, I'd appreciate if you would like to take ten minutes of your time to complete the questionnaire and return it in the enclosed, self-addressed, stamped envelope. I am interested in developing a better understanding of why Latino students, as you, decide to pursue a higher education. As a result, it is extremely important that you return the enclosed questionnaire. The results of this study will help other future Latino students succeed in college. Also, this study will identify the factors that motivated you in your career decision, factors that kept you in college, and factors that kept you going through to graduation.

This study is being conducted with the College of Agricultural Education and Agricultural Sciences at Oregon State University. Your individual responses to the questionnaire will remain confidential and your name will never be shared with anyone. Your participation in this study is strictly voluntary and you may choose not to participate. However, I hope you will answer the questionnaire and return it to the above address, as indicated on the return envelope.

If you have any question about this study, please feel free to call me at (503) 383-4098, or my Faculty Advisor, Dr. Greg Thompson, at (541) 737-1336. For additional information regarding human participation in research, please feel free to contact the OSU Office of Research Integrity at (541) 737-8008.

Sincerely,

Jose L. Meza

APPENDIX B

Cover Letter to Students before Survey

Congratulations and Welcome!

You have been identified as one of our Latino students at [Oregon State University]. As a Latino student, you are part of our family, so we want to encourage more Latino students to pursue higher education. In our research programs, we are constantly trying to find better ways to make OSU much stronger for our minority students. And here is where we could use your help!

We would like you to participate in a research study assessing the factors that motivate Latino students to pursue higher education in colleges in the state of Oregon. Your participation in this research is strictly voluntary; however, the information that you provide will be used to help us present advice and direction for future students. We assure you that your identity and responses will be kept confidential.

If you are willing to participate in this research, it will involve about 15 minutes of your time. The questionnaire will ask you to assess your reasons that motivated you to pursue higher education. There are also additional questions related to personal characteristics.

There are no known risks associated with your participation, but, if you if you have questions concerning your rights as a participant in this research project, please contact the Oregon State University Institutional Review Board (IRB) Human Protections Administrator at (541) 737-8008 or by email at IRB@oregonstate.edu.

Thank you in advance for your consideration.

Respectfully,

Dr. Jonathan Velez, Researcher

Jose L. Meza, Student Researcher

The Department of Agricultural Education and General Agriculture

112 Strand Ag Hall

Corvallis, Oregon

541-737-1336

APPENDIX C

Letter of Introduction to Students

Good Morning/Afternoon/Evening

My name is Jose L. Meza. I'm a graduate student from OSU. I'm here today to request your voluntary participation in research about which factors motivate you to continue your higher education. Your participation requires answering this questionnaire and will take about 20 minutes. Your participation is anonymous, so you do not need to write your name.

The overall goal of this investigation is to gather information on factors that motivate Latino students to pursue higher education in colleges across Oregon. This study is also the focus of my doctoral dissertation for a Ph.D. in Education. The results of this survey will:

● Provide institutions of higher education a better understanding of the barriers Latino students are facing when they want to continue their education so the institutions can work to increase these students' enrollment.

● Help Latino students to become aware of their potential for academic success, and encourage more Latino students to attend college.

Thank you very much for your help!

APPENDIX D

IRB Approval

Institutional Review Board ● Office of Research Integrity
B308 Kerr Administration Building, Corvallis, Oregon 97331-2140
Tel 541-737-8008 | **Fax** 541-737-3093 | IRB@oregonstate.edu
http://oregonstate.edu/research/ori/humansubjects.htm

NOTIFICATION OF EXEMPTION

December 21, 2010

Principal Investigator:	Jonathan Velez	Department:	Agricultural Sciences
Study Team Members:	Jose L. Meza		
Student Researcher:			
Study Number:	4856		
Study Title:	Factors that motivate Latino students topursue higher education in colleges in the state of Oregon		
Funding Source:	None		
Submission Type:	Initial Application received 12/15/2010		
Review Category:	Exempt	Category Number:	2

The above referenced study was reviewed by the OSU Institutional Review Board (IRB) and determined to be exempt from full board review. You may proceed with the research described in the protocol.

Expiration Date: 12/21/2015

*The exemption is valid for **5 years** from the date of the initial determination.*

Annual renewals will not be required. If the research extends beyond the expiration date, the Investigator must request a new exemption. Investigators should submit a final report to the IRB if the project is completed prior to the 5 year term.

Documents included in this review:

- ☒ Protocol
- ☒ Consent forms
- ☐ Assent forms
- ☐ Grant/contract
- ☐ Recruiting tools
- ☒ Test instruments
- ☐ Attachment A: Radiation
- ☐ Letters of support
- ☐ External IRB approvals
- ☐ Translated documents
- ☐ Attachment B: Human materials
- ☐ Other:

☐ Project revisions:

Principal Investigator responsibilities:

- Amendments to this study must be submitted to the IRB for review prior to initiating the change. Amendments may include, but are not limited to, changes in funding, personnel, target enrollment, study population, study instruments, consent documents, recruitment material, sites of research, etc.
- All study team members should be kept informed of the status of the research.
- Reports of unanticipated problems involving risks to participants or others must be submitted to the IRB within three calendar days.
- The Principal Investigator is required to securely store all study related documents on the OSU campus for a minimum of three years post study termination.

APPENDIX E

Survey Instrument

What motivates you to pursue higher education?

I am trying to identify the factors that motivate Latino students to attend college. By sharing your background and influences as a current undergraduate student, I hope to better understand what motivates Latino students when making the decision to pursue higher education. Would you be willing to take a few minutes to give us your perceptions and help other Latinos to attend college?

Example:	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
I feel confident in my ability to graduate from this program	1	2	3	4	⑤	6

In the example above, the student circled 5, indicating “agree”. He/she was confident in his/her ability to graduate from his/her program.

Educational/Parental Encouragement Factor

1. My mother values my efforts to get a college degree	1 2 3 4 5 6
2. My mother talks with me about my college course work	1 2 3 4 5 6
3. My mother believes I will complete my college education	1 2 3 4 5 6
4. My mother is interested in my college friends	1 2 3 4 5 6
5. My mother supports my efforts in getting a college degree	1 2 3 4 5 6
6. My mother is interested in my general college experiences	1 2 3 4 5 6
7. My father values my efforts to get a college degree	1 2 3 4 5 6
8. My father talks with me about my college course work	1 2 3 4 5 6
9. My father believes I will complete my college education	1 2 3 4 5 6
10. My father is interested in my college friends	1 2 3 4 5 6
11. My father supports my efforts in getting a college degree	1 2 3 4 5 6
12. My father is interested in my general college experiences	1 2 3 4 5 6
13. My friends value my efforts to get a college degree	1 2 3 4 5 6
14. My friends talk with me about my college course work	1 2 3 4 5 6
15. My friends believe I will complete my college education	1 2 3 4 5 6
16. My friends support my efforts to get a college degree	1 2 3 4 5 6
17. My friends are interested in my general college experiences	1 2 3 4 5 6
18. My teachers value my efforts to get a college degree	1 2 3 4 5 6
19. My teachers talk with me about my college course work	1 2 3 4 5 6
20. My teachers believe I will complete my college education	1 2 3 4 5 6
21. My teachers support my efforts in getting a college degree	1 2 3 4 5 6
22. My teachers are interested in my general college experiences	1 2 3 4 5 6

University Environment Factor

23. Class sizes are so large I feel like a number	1 2 3 4 5 6
24. The library staff is willing to help me find materials/books	1 2 3 4 5 6
25. University staff have been warm and friendly	1 2 3 4 5 6
26. I do not feel valued as student on campus	1 2 3 4 5 6
27. Faculty have not been available to discuss my academic concerns	1 2 3 4 5 6
28. Financial aid staff has been willing to help me with financial concerns	1 2 3 4 5 6
29. The college encourages/sponsors groups on campus	1 2 3 4 5 6
30. There are tutoring services available for me on campus	1 2 3 4 5 6
31. The college seems to value minority students	1 2 3 4 5 6
32. Faculty have been available for help outside of class	1 2 3 4 5 6
33. The college seems like a cold, uncaring place to me	1 2 3 4 5 6
34. Faculty have been available to help me make course choices	1 2 3 4 5 6
35. I feel as if no one cares about me personally on this campus	1 2 3 4 5 6
36. I feel comfortable in the college environment	1 2 3 4 5 6

Personal Goal Orientation Factor

37. I like class work that I'll learn from even if I make a lot of mistakes	1	2	3	4	5	6
38. I do my class work is because I like to learn new things	1	2	3	4	5	6
39. I like class work best when it really makes me think	1	2	3	4	5	6
40. I do my class work because I want to get better at it	1	2	3	4	5	6
41. An important reason I do my class work is because I enjoy it	1	2	3	4	5	6
42. I do my class work because I'm interested in it	1	2	3	4	5	6

Academic Self-Efficacy Factor

43. I'm certain I can master the skills taught in school this year	1 2 3 4 5 6
44. I can do even the hardest school work if I try	1 2 3 4 5 6
45. If I have enough time, I can do a good job on all my school work	1 2 3 4 5 6
46. I can do almost all the work in school if I don't give up	1 2 3 4 5 6
47. Even if the work in school is hard, I can learn it	1 2 3 4 5 6
48. I'm certain I can figure out how to do the most difficult school work	1 2 3 4 5 6

Self-Efficacy Factor

49. I can always manage to solve difficult problems if I try hard enough	1 2 3 4 5 6
50. I can find the means and ways to get what I want	1 2 3 4 5 6
51. It is easy for me to stick to my aims and accomplish my goals	1 2 3 4 5 6
52. I am confident that I could deal efficiently with unexpected events	1 2 3 4 5 6
53. I know how to handle unforeseen situations	1 2 3 4 5 6
54. I can solve most problems if I invest the necessary effort	1 2 3 4 5 6
55. I can remain calm when facing difficulties	1 2 3 4 5 6
56. I can usually find several solutions	1 2 3 4 5 6
57. If I am in trouble, I can usually think of a solution	1 2 3 4 5 6
58. I can usually handle whatever comes my way	1 2 3 4 5 6

Demographic Characteristics

Please circle your answer

59. Please indicate your current age 18-22 23-27 >28

60. What is your gender? Female Male

61. What year do you expect to graduate from this college? _____

62. What is your current area of study? _____

63. What is your current major? _____

64. Have you taken any college classes in agriculture or natural resources? Y N

65. If yes, do you plan to continue taking agricultural classes? Y N

66. Did you take any agriculture or natural resources classes in high school? Y N

66A. What was your high school GPA? _____

67. What is your college GPA? _____

68. What do you plan to do once you get your degree?

1. Go to graduate school 2. Start my own business 3. Find a job 4. Other

69. What are your parents/guardians' highest levels of education?

Mother	Father
Elementary	Elementary
High School	High School
Community College	Community College

University University

Graduate School Graduate School

70. Write the occupation that best describes what your parents do for a living.

Mother _____ Father _____

71. Which best describes you in relation to your family?

I am the 1st 2nd 3rd 4th 5th in my family to attend college.

72. How many siblings do you have?

None (only child) One Two Three Four or more

73. Which best describes your position in the family?

I am the oldest I am in the middle I am the youngest

74. Where do you currently live?

In a city/urban area In a suburb In a rural area

75. In what country were you born? _____

76. How many miles is the distance from your house to your college?

Less than 10 20-40 40-70 70-100 Greater than 100

77. What is your primary language? Spanish English

78. What is your parents' joined yearly income? (thousands dollars)

Less than 20 20 - 45 45 - 70 Greater than 70

79. In order to meet family responsibilities, do you have to work while attending

school? Y N

80. If yes, how many hours per week do you work? _____

81. Do you receive any financial aid? Y N

82. If yes, how much total financial aid (scholarships, grants, loans, etc.) do you receive? _____

Thank you for your help in answering this questionnaire!