

AN ABSTRACT OF THE THESIS OF

Michelle Onaka for the degree of Master of Science in College Student Services Administration presented on April 29, 2015.

Title: The Association between Ethnic Studies Course Completion and Graduation Rates of Undergraduate Students of Color at a Predominately White Institution.

Abstract approved: _____

Laurie M. Bridges

Problem: The current national focus on college student success highlights the need to increase the graduation rates of students of color. To date, qualitative research has shown benefits from Ethnic Studies courses such as higher levels of student achievement, engagement and involvement, validation, mattering, and a sense of belonging for students of color. However, quantitative research examining the aggregate student data relating to Ethnic Studies course completion and college student success has not been conducted.

Purpose: This quantitative study seeks to determine if there is a relationship between students of color completing Ethnic Studies courses and graduating from a predominantly White institution.

Setting: The research took place at a large, public research university in the Pacific Northwest.

Methodology: Data for almost 5,000 students of color were obtained from the Registrar; SPSS was used to run chi-square tests for independence for three research questions:

1. Is there an association between students of color completing Ethnic Studies courses and graduating?

2. Is there an association between the number of Ethnic Studies courses completed by students of color and graduation?
3. Is there an association between students of color completing Ethnic Studies courses and time-to-degree?

Findings: A statistically significant association between completing Ethnic Studies courses and graduating was found for students of color; students who did not complete Ethnic Studies courses graduated at lower rates and those who completed Ethnic Studies courses graduated at higher rates. Taking zero Ethnic Studies courses and taking one Ethnic Studies course were the most significant contributors to the finding of an association, although in some cases completing *two* and *three or more* courses was also related. The association held when looking at students who did not graduate and those who graduated in more than four years, although there was not a significant association between completing Ethnic Studies courses and graduating in four years or less.

Conclusions: An association does not equal causation, yet the association found between students of color completing Ethnic Studies courses and graduating shows that it is possible that Ethnic Studies courses are contributing to student success, as has been found in previous research. Additional research is needed to further understand the association that was found.

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The Association between Ethnic Studies Course Completion and Graduation Rates of
Undergraduate Students of Color at a Predominately White Institution
by
Michelle Onaka

A THESIS

submitted to

Oregon State University

in partial fulfillment of
the requirements for the
degree of

Master of Science

Presented April 29, 2015
Commencement June 2015

Master of Science thesis of Michelle Onaka presented on April 29, 2015

APPROVED:

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

Michelle Onaka, Author

ACKNOWLEDGEMENTS

I would like to express my sincere appreciation for everyone who has supported me through my thesis process. As a collaborative thinker and learner, I benefited so much from all of your questions and insights, and you made it possible for me to formulate and complete my study.

To my advisor, Laurie Bridges, thanks for allowing me to go through this process in my own way and at my own pace. I could not have done it without your patience, guidance, and encouragement. To the rest of my committee, Natchee Barnd, Kokmun Ng, and Darlene Russell, thank you for your time, effort, and thoughtful contributions in each step of the way. Many thanks to the Registrar's Office, especially to Rebecca Mathern for allowing me access to the data and Amanda Champagne for preparing and delivering the data. Thanks also to the 4,958 students whose data made it possible for me to complete this thesis.

I would also like to thank my CSSA cohort, faculty, supervisors, and CSSA-supporters across and beyond campus who have created this rich learning environment. It has been a tremendous educational experience that I am grateful to have been a part of. Finally, I would like to thank my partner, Kyle, my parents, Doug and Linda, and the rest of my family and friends who helped me make it through these last two years. I hope that I can honor your encouragement of my educational aspirations by supporting undergraduate students as they pursue a college education.

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Chapter 1: Introduction

In the United States, students of color, particularly at predominantly White institutions (PWIs), are not equitably served in higher education. One of the most visible outcomes of this inequity is manifest in lower graduation rates of students of color as compared to their White peers (National Center for Education Statistics, 2014). Ethnic Studies programs have shown positive outcomes for students of color in K-16 education, including increased student engagement, achievement, sense of agency (Sleeter, 2011), and higher high school graduation rates (Cabrera, Milem, & Marx, 2012). However, most research has been qualitative in nature (e.g. de los Ríos, 2013; Nuñez, 2011; Salcedo, 2013; Vasquez, 2011; Vásquez, González Cárdenas, & García, 2014), and college graduation rates in relation to Ethnic Studies courses have not been examined. This research seeks to determine if Ethnic Studies course completion by students of color is related to graduation rates at a public, predominantly White research university in the Pacific Northwest.

Background of the Study

This study took place in Oregon at a public institution of higher education during a time when the state's goal, by the year 2025, is to have at least a bachelor's degree for 40% of Oregonians, at least an associate's degree or post-secondary credential for another 40%, and at least a high school diploma for the remaining 20% (Oregon Learns, 2011). This focus on college graduation rates is also seen nationally. For instance, President Obama (2009) hopes to have the most educated population in the world by 2020, and the Lumina Foundation (n.d.) wants to increase "the proportion of Americans with high-quality degrees, certificates and other credentials to 60 percent by the year 2025" (p. 1).

Oregon State University, where this study was conducted, has demonstrated substantial interest in increasing student achievement by joining the University Innovation Alliance, a

consortium of 11 large research universities nationwide that are committed to innovation in order to increase and equalize educational outcomes of all students (University Innovation Alliance, 2015). As the field of higher education within Oregon and the rest of the nation is focusing on improving graduation rates, one area that deserves substantial attention is differential graduation rates based on race and ethnicity. Both nationwide and at this institution, the average gap between graduation rates of White and Black students is over 20% (National Center for Education Statistics, 2014; Wang, 2011). Focusing on increasing graduation rates of people of color is especially pertinent since the population of people of color in the United States is growing rapidly and that growth is forecasted to continue (United States Census Bureau, 2012). Additionally, it is expected that by 2018 there will be an economic demand for three million more educated people than the United States is projected to produce (Carnevale, Smith, & Strohl, 2010).

Students of color were the focus for this research because historical and current practices in the United States have led to racial inequity within education. Although students of various racial and ethnic groups face different circumstances, and a detailed accounting of each is outside the scope and purpose of this document, the experience and history of discrimination and inequity is relevant for almost all, if not all, groups of students of color in the United States. A look at the historic enrollment and attendance rates of students of color, and the manner and intent of their education, can help illuminate the magnitude of the inequity. For example, in 1850, 56% of Whites between the ages of 5 and 19 were attending formal schools, as compared to 1.8% of people of color—this number did not equalize until 1991 (National Center for Education Statistics & Snyder, 1993). Even when people of color did receive education, it was typically characterized by deculturation, as was the case with Native Americans, Puerto Ricans,

and Mexican Americans, and/or segregation, particularly with African Americans, Asian immigrants from families working low-wage jobs, and Mexican-American farm-workers (Spring, 1994).

Inequity within education extends to college as well. In 1967, the percentage of White 18-24 year olds enrolled in college was twice that of Black students (National Center for Education Statistics, 2013). Although the disparity is closing, with White enrollment only 5% higher than Black enrollment and 4% higher than Hispanic enrollment in 2012, there is still a large gap between White enrollment and American Indian/Alaska Native enrollment (42% versus 28%) (National Center for Education Statistics, 2013). Additionally, as previously mentioned, graduation rates still vary considerably based on race and ethnicity. Graduation rates are based on cohorts of students who entered in a specific year, and graduation statistics are typically measured as either four-year or six-year rates, even though many students take longer than that to graduate. The racial disparity in four-year graduation rates is particularly large, with 42% of first-time, full-time White students completing within four years compared to 20% of Black students, 24% of Pacific Islanders, and 29% of Hispanic students (National Center for Education Statistics, 2014). Negative campus environments reported at predominately White institutions (PWIs) are a potential factor in lower graduation rates for students of color at those institutions. Harper and Hurtado (2007) analyzed 35 studies of campus racial climate since 1992 and found that students of color consistently reported experiencing isolation, alienation, and stereotyping on campus at PWIs.

Oregon State University experiences similar issues as those reported by other PWIs nationwide. Looking at 10 years of Oregon State University six-year graduation data, there was a 21% gap between average six-year graduation rates of Caucasians and African Americans and

a 15% gap between average rates of Caucasians and those of Hispanic/Latina/os as well as American Indian/Alaska Natives (Wang, 2011). Consistent with what was found through Harper and Hurtado's (2007) meta-analysis of 35 studies, a 2005 campus climate assessment at Oregon State University found that 45% of respondents of color reported being personally harassed, 25% of respondents of color felt uncomfortable or very uncomfortable with the overall campus climate, 53% of respondents of color experienced racial profiling, and 24% of respondents of color did not feel that the university adequately addresses issues of race (Rankin & Associates, 2005). However, an updated study would be helpful in understanding whether the racial climate at Oregon State University has evolved over time.

While graduation rates have risen to national prominence and institutions are working to improve rates for all students, especially those students who are traditionally underrepresented in higher education, Ethnic Studies courses have increasingly been under attack. For instance, recent Arizona legislation (AZ H.B. 2281, 2010) led to the cancellation of the Mexican American Studies (MAS) program at Tucson Unified School District (Smith, 2012). The MAS program allowed all high school juniors and seniors to voluntarily replace their regular English and social studies classes with culturally relevant English and social studies classes that utilized Mexican-American themes, histories, and writers to help students more fully engage with the material. The courses had great results, including correlations between taking MAS classes and both passing standardized tests and graduating from high school (Cabrera, Milem, & Marx, 2012), yet the courses were canceled because politicians felt these courses encouraged an overthrowing of the government (TUSD's "Ethnic Studies" controversy, 2011). The MAS situation is just one example that illustrates both the potential benefits from Ethnic Studies programs and the extent of the attacks to these types of programs. Although Ethnic Studies

programs within higher education have not faced such dramatic difficulties, they have been frequently subjected to substantial budget cuts, which are related to a lack of understanding of the importance of the programs as well as the national political climate (Brown, 2013).

Therefore, it is critical to further study any potential benefits of Ethnic Studies courses, especially as they relate to students of color and graduation rates, as it is possible that these courses could be under future attack and any benefits lost.

Statement of the Problem

Is there an association between students of color completing Ethnic Studies courses and graduating? With the current national focus on graduation rates, especially for students of color, it is imperative to study all potential factors that could be related to graduation rates. Several researchers have found positive results relating to academic performance and Ethnic Studies courses (Cabrera, Milem, Jaquette, & Marx, 2014; Cabrera, Milem, & Marx, 2012; de los Ríos, 2013; Nuñez, 2011; Salcedo, 2013; Vasquez, 2011). Additionally, one of the central principles of Ethnic Studies, culturally relevant curricula and/or pedagogy (Tintiango-Cubales et al., 2014), has also been found to benefit students (Bean, Valerio, Senior, & White, 1999; Brozo & Valerio, 1996; Cammarota, 2007; Cammarota & Romero, 2009; Chun & Dickson, 2011; Halagao, 2004; Lee, 1995; Lee, 2001; Lee, 2006; Lewis, Sullivan, & Bybee, 2006; Lipka et al., 2005; Lipka, Sharp, Brenner, Yanez, & Sharp, 2005; McCarty, 1993; McKinley, 2010; Rickford, 2001; Vasquez, 2005). Although the previously mentioned research shows that Ethnic Studies pedagogy and Ethnic Studies courses have a positive effect on students, most of the Ethnic Studies research is small-scale and qualitative, and no studies to date look at Ethnic Studies courses and college graduation. A better understanding of factors that relate to graduation rates

of students of color could lead to improved theory, research, policy, programs, and interventions that have the potential for increasing those rates.

Purpose of the Study

The purpose of this study was to explore whether there is an association between graduation rates of students of color and Ethnic Studies course completion at one institution in the Pacific Northwest.

Significance of the Study

Because of the current national, state, and home institution focus on graduation rates, and the fact that students of color tend to have lower graduation rates than their White peers, all potential relationships between students of color and graduation rates should be explored. Previous research has highlighted benefits to Ethnic Studies courses for students of color that have the potential to increase engagement, retention, and graduation rates (Cabrera, Milem, Jaquette, & Marx, 2014; Cabrera, Milem, & Marx, 2012; de los Ríos, 2013; Nuñez, 2011; Salcedo, 2013; Vasquez, 2011), however that potential has still only been minimally assessed. While there has been one study that examined overall outcomes of high school students taking Ethnic Studies courses, the author is unaware of any studies that have examined aggregate outcomes of college students of color taking Ethnic Studies courses. Although this research cannot demonstrate a causal relationship, and it cannot be generalized to other institutions and other Ethnic Studies programs, it is a small and valuable step in the direction of further understanding the potential of these courses in improving graduation rates. Any associations that are found could encourage the creation of policies or practices to take advantage of those findings and ultimately increase graduation rates of students of color.

Definition of Terms

There are several terms used throughout this thesis, and an accurate understanding of key terms is essential. Definitions for *deculturation*, *Ethnic Studies*, *Ethnic Studies courses*, *graduation rates*, *microaggression*, *positionality*, *retention*, and *students of color* follow.

Deculturation: As defined by Spring (1994), deculturation refers to intentionally replacing the culture of conquered people with the culture of the conqueror, in this case, the United States. This process is achieved through education and has particularly affected Native Americans and Puerto Ricans (Spring, 1994).

Ethnic Studies: According to the Department of Ethnic Studies at University of California, Berkeley, which has one of the oldest university Ethnic Studies programs, “Ethnic Studies is an interdisciplinary enterprise that starts from the assumption that race and racism have been, and continue to be, profoundly powerful social and cultural forces in American society and in modernity at large” (Department of Ethnic Studies, n.d., para. 1). The mission statement of the Ethnic Studies program at Oregon State University, where the research was conducted, is as follows:

The Ethnic Studies program aspires to provide an academic opportunity of excellence for critical, multidisciplinary investigation of the intersections race, gender, ethnicity, and sexuality, and of the articulated concerns of the four major racialized minority groups in the United States: Native Americans, African Americans, Asian Americans, and Chicanos/Latinos. The program is currently expanding its offerings to include coverage of race and ethnicity in a global context (Ethnic Studies, n.d., Mission).

Ethnic Studies courses at OSU: Any course offered through the Ethnic Studies program, signified by an “ES” before the course number, and any courses that are cross-listed between the Ethnic Studies program and other areas on campus.

Graduation rates: Graduation rates are referred to as a percentage, and they are the percentage of students who graduate out of the original students who enrolled during a particular year. Sometimes they are referred to as four-year graduation rates (those who graduated within four years of entering the institution) or six-year graduation rates (those who graduated within six years of entering the institution). For the purposes of this research, when “four-year” or “six-year” are not specified, graduation rates are used to describe those who graduated at all, irrespective of how long it took them.

Microaggression: “Subtle insults (verbal, nonverbal, and/or visual) directed toward people of color, often automatically or unconsciously” (Solórzano, Ceja, & Yosso, 2000, p. 60). Although the previous definition of a microaggression explicitly focuses on people of color, microaggressions can also be directed at people of other marginalized groups such as transgender individuals and people with disabilities. One example of a racial microaggression might be when a White student meets a Black male student on campus and automatically asks, “What sport do you play?”, which indirectly tells the Black student that he doesn’t really belong or that he isn’t good enough to be at the university unless he plays a sport.

Positionality: The way that each person sees the world through their own point of view and social context, and how that influences their thought process and relationships with others. For instance, as a White heterosexual woman, I am likely to have a different way of understanding the world when compared to a queer Asian American man. In considering positionality, I need to be aware of my identities and experiences and how they shape my perspectives and interactions with others.

Retention: The percentage of students who continue at the institution in question every year. Typically, this term refers to first-year retention, or the percentage of students who return

to college following their first year, but it can also mean the percentage who return any other year, such as after year three.

Students of color: As a general term, this includes all people who are students at an educational institution and identify as a person of color. Typically, it is up to individuals to decide whether they consider themselves to be people of color. However, for the purposes of this study and the ability to use data collected from the institution, students of color were those domestic students who marked American Indian/Alaskan Native, Asian/Pacific Islander, Black or African American, Hispanic, Middle Eastern, Other, Multiple, and None of the Above. Students who marked Unknown, White, or White in addition to Hispanic were not considered to be students of color and were not included in the study. As a general note, the researcher is aware that there is no consensus on which terms are always preferred, such as Hispanic versus Latina/o or Black versus African American. For consistency, usage of racial and ethnic identity terms in this paper is typically reflective of either the terms used by Oregon State University during enrollment, or those used by the researcher who is being referenced. Language choices are therefore not meant to show preference for one term over another or alienate readers.

Research Questions

To further shed light on the relationship between Ethnic Studies courses and graduation rates for students of color, this study analyzes institutional data from 1999 to 2014 at Oregon State University to see if there is any association between Ethnic Studies course completion and graduation.

Question 1: Is there an association between students of color completing Ethnic Studies courses and graduating?

- *1st Null hypothesis.* There is no statistically significant association between students of color completing Ethnic Studies courses and graduating.

Question 2: Is there an association between the number of Ethnic Studies courses completed by students of color and graduation?

- *2nd Null hypothesis.* There is no statistically significant association between the number of Ethnic Studies courses completed and graduation.

Question 3: Is there an association between students of color completing Ethnic Studies courses and time-to-degree?

- *3rd Null hypothesis:* There is no statistically significant association between students of color completing Ethnic Studies courses and time-to-degree.

Organization of the Study

This study is broken into five chapters. Chapter two reviews the research relevant to this topic, including the factors and theories related to student success, and background information and research on Ethnic Studies programs. Chapter three reviews the research methodology followed in this study. Chapter four provides the results. Chapter five discusses the results and their implications, as well as limitations of the study.

Chapter 2: Review of the Literature

Previous research has explored varying factors related to Ethnic Studies and student engagement and success. This chapter briefly introduces some of the most relevant findings of why students succeed, including specifically students of color and success related to the classroom. Then it examines the history, climate, and previous research on Ethnic Studies, especially in relation to academic outcomes from these courses. Finally, four theories that are particularly relevant to both success and Ethnic Studies courses are considered.

Student Success

Kuh, Kinzie, Schuh, and Whitt (2010) defined successful students as “those who persist, benefit in desired ways from their college experiences, are satisfied with college, and graduate” (p. 8). In addition to the previous definition of success, some might include grade point average, developing certain skills or meeting learning goals, and ability to obtain meaningful employment after college as indicators of success. Regardless of the exact measures used, there are several things that we know about how to promote student success. Kuh, Kinzie, Buckley, Bridges, and Hayek (2006) state that student success is a function of (a) pre-college characteristics, (b) student engagement in college, which is determined by student behaviors and institutional conditions, and (c) post-college outcomes. Habley, Bloom, and Robbins (2012) concentrated more specifically on the college experience, and found that there are three necessary conditions for students to be successful. These conditions are that (a) students must learn, (b) students must develop and exhibit “motivation, commitment, engagement, and self-regulation” (p. xv), and (c) they must have academic goals based on their own skills and interests. Similarly, Tinto (2002) summarized “what works” in student retention as (a) institutional commitment, (b) academic and social support, (c) continuous feedback on student progress, (d) involvement, and (e) learning.

Palmer, Maramba, and Holmes (2012) explored success of students of color specifically, and found four important themes: “(a) student involvement, (b) faculty interaction, (c) peer support, and (d) self-accountability” (p. 329). Likewise, Palmer and Young (2009) studied successful yet underprepared Black males and found that they attributed their success to campus engagement, supportive faculty, and their own motivation or personal responsibility.

In order to reach a more diverse range of students who are not always available for out of class involvement, including but not limited to students of color, Tinto (2002) highlighted the ongoing restructuring of classrooms to focus more on engagement and learning. He noted that some changes that produce results include collaborative group-work, learning communities, supplemental instruction, formative assessments, and first-year transition courses. Tinto discussed research by Tinto et al. and Tinto and Engstrom (as cited in Tinto, 2002) that found extensive benefits from classrooms reconceived as learning communities. These benefits include students forming self-supporting groups and spending more time together outside of class, enhanced active learning both in and out of class, higher quality of learning through connected learning, and higher rates of persistence.

In another study that included but did not focus specifically on students of color, a relationship was found between students’ engagement in a single abnormal psychology class and future success (Svanum & Bigatti, 2009). Svanum and Bigatti gathered information on students’ academic course engagement, defined as “academic course involvement and effort directed toward specific course components such as attending lectures and completing reading assignments” (p. 121), and then followed those students for five to six years to measure graduation, time to degree, and final GPA. The researchers found that “high academically engaged students were 1.5 times more likely to graduate and required approximately 1 semester

less to do so” (p. 128). They also found that academic engagement was significant in determining final cumulative GPA of students. Ethnic Studies courses are uniquely posed to increase success of students of color through their ability to engage students in culturally relevant curricula that is typically missing from education in the United States.

Ethnic Studies

Ethnic Studies, as defined by Yang (2000), is “an interdisciplinary, multidisciplinary, and comparative study of ethnic groups and their interrelations, with an emphasis on groups that have historically been neglected” (pp. 7-8). Through my own experience with Ethnic Studies, I would describe it as a field that focuses on the experiences of people of color within the culture of the United States or other country of focus and examines those experiences through a critical lens, rather than relegating those topics to the periphery of education (and society). Hu-DeHart (1993) elaborated on the field and explained that it “provides a ‘liberating educational process’ (Vasquez, 1988, p. 25) that challenges Western imperialism and Eurocentrism, along with their claims to objectivity and universalism” (p. 52).

Establishment of Ethnic Studies programs in higher education. In the 1960s and prior, higher education in the United States was based on and delivered by White European Americans, including mostly White administrators, faculty, and students, and with a curricula reflective only of experiences of the majority (Hu-DeHart, 1993). Towards the end of the ‘60s, when the student population was becoming increasingly diverse and after the 1964 passage of the Civil Rights Act by US Congress, assimilation into White Eurocentric culture was still expected (Yang, 2000). However, educators of color were beginning to push for curricula that reflected the diversity of the country (Sleeter, 2011). In 1968, students at San Francisco State College (San Francisco State University) and University of California, Berkeley occupied the

administrative offices of their respective campuses and demanded increased educational access for students of color, a modified and more inclusive curriculum, recruitment and hiring of faculty of color, and the establishment of programs for Ethnic Studies (Hu-DeHart, 1993; Yang, 2000). This movement caught on in other areas and led to the creation of many Ethnic Studies departments in the late '60s and early '70s to pacify the activist students (Hu-DeHart, 1995). Universities continued to add Ethnic Studies departments until the end of the '70s, when, due to budget crises and an unwelcoming political climate, development of new Ethnic Studies programs halted and many existing programs either consolidated or closed (Yang, 2000). However, Ethnic Studies was reorganized at the end of '80s, leading to the strengthening of the field, which resulted in over 800 Ethnic Studies programs in the United States as of 1996 (as cited in Yang, 2000).

Challenges to Ethnic Studies. Ethnic Studies is, and always has been, a contentious discipline. Established to challenge power and Eurocentrism, the field has typically been viewed with suspicion (Hu-DeHart, 1993). Despite the fact that Ethnic Studies has been around for over 40 years now, it still faces many challengers. According to Sleeter (2011), Ethnic Studies has been “commonly described as ‘divisive,’ un-American, and teaching racial separatism and even overthrow of the U.S. government” (p. 5). One recent example of such sentiment within public secondary education comes from Arizona. In 2010, Arizona passed House Bill 2281, which placed four limitations on public and charter school courses (AZ H.B. 2281, 2010). These limitations prohibited courses that encouraged either racial/ethnic resentment or overthrowing the government, were designed for a particular ethnic group, or promoted ethnic solidarity as opposed to individuality. The Arizona Superintendent of Public Instruction decided that the Mexican American Studies program (MAS) through Tucson Unified School District (TUSD)

violated the aforementioned policy (TUSD's "Ethnic Studies" controversy, 2011), prompting TUSD to temporarily cancel the program rather than lose their state funding (Smith, 2012).

Characteristics of Ethnic Studies. Despite the negative view of Ethnic Studies held by some, none of the characteristics identified by Sleeter (2002; 2011) had any link to overthrowing the government. Those characteristics included paying attention to positionality and how it impacts point of view; focusing on points of view outside of the dominant narrative; exploring colonialism in the past and present manifestations; understanding the social construction of race, racism, and liberation; examining group identity; and studying one's own community.

According to Tintiangco-Cubales et al. (2014), Ethnic Studies pedagogy consists of four main themes. First, teachers need to believe strongly in the needs for decolonization and fighting oppression. The second theme is culturally responsive pedagogy, which consists of three features that were vital to Ethnic Studies pedagogy, "building upon students' experiences and perspectives, developing students' critical consciousness, and creating caring academic environments" (Culturally Responsive Pedagogy section, para. 1). The third theme of Ethnic Studies pedagogy is community responsive pedagogy, or "developing critical consciousness, developing agency through direct community experience, and growing transformative leaders" (Community Responsive Pedagogy section, para. 1). The final theme is teachers who engage in extensive racial identity development.

Ethnic Studies outcomes for students of color. Sleeter (2011) examined the literature relating to Ethnic Studies courses designed for students of color in K-16 education and concluded that (a) there is "a positive relationship between the racial/ethnic identity of students of color and academic achievement" (p. vii); (b) students were more engaged with culturally relevant curricula, with some studies showing significant learning; and (c) student achievement,

sense of agency, and students' attitudes about learning all improved. Sleeter also noted that only one study did not show positive results, but that was easily explained due to a poor curriculum design.

Additional studies since Sleeter's (2011) review have increased our knowledge of the impact of Ethnic Studies on high school and college students. Nuñez (2011) interviewed 19 first-generation Latina/o college sophomores in an introductory Chicano studies course and found a wide variety of benefits from the course. Students reported meeting other students from their cultural background and being able to develop a community. They increased their understanding of their family histories and developed a sense of pride in their cultural background. Students felt affirmed, valued, and engaged in their education, which helped them feel more comfortable speaking in class. Students also felt more able to approach faculty and develop student-faculty relationships.

Cabrera, Milem, and Marx (2012) analyzed four years of data from the Mexican-American Studies (MAS) program in Tucson Unified School District (TUSD) by creating demographically similar groups of students who did and did not take courses in the program. According to the logistic regression that he ran, using a p-value of .05, or a 95% confidence level, there was a statistically significant positive correlation between taking the MAS courses and passing the standardized test required for graduation in seven out of 12 models, with positive but not statistically significant results for the other five models. Depending on the cohort, students were 64-118% more likely to pass the test after taking MAS classes. Additionally, MAS participation and high school graduation were positively correlated in all eight models, and statistically significant in six of the eight models, with the students who took MAS 46-150% more likely to graduate than their similar peers.

Vasquez (2011) examined the factors that led to retention of Chicana/o students majoring in Chicana/o Studies at California State University Fullerton. He created a model of retention wherein “(1) validation of the whole student, (2) relational learning, and (3) engaging and safe academic environments” (p. 176) were the core areas where Ethnic Studies contributed to student retention. Vasquez explained that validation from the courses led to increased student investment in their learning and self-confidence, and that “Chicana/o studies sent the signal that what students go through and how they see the world is acceptable in the academic arena and something that should be seen as an asset and not a deficit in one's life” (p. 182). The theme of relational learning referred to the relationships that students were able to form both with other students and with faculty, and how the level of care and authenticity allowed students to feel supported as themselves, without having to assimilate to the dominant culture. A safe and engaging academic environment was created through the understanding that there is no single correct answer, but rather that everyone has something to contribute. This environment helped students to see themselves as both students and teachers, and helped them to feel recognized, heard, and valued.

Salcedo (2013) also studied the impact of majoring in Chicana/o Studies. She found that all six student participants felt that their Chicana/o studies major had helped them succeed and graduate, and further identified three themes “that the participants described as having impacted their college experience: 1) the role of community, 2) the professor-student relationship, and 3) the critical pedagogy practiced in the classroom” (p. 35). Within the first theme, Salcedo included examples that showed the impact of community and community service, and how the program caused students to develop purpose and motivation to graduate and give back to their communities, act as role models, and influence future generations. Within the second theme,

Salcedo identified a welcoming environment with the professors because students were able to identify with them, seek mentoring and guidance from them, and develop more personal relationships with faculty that extended beyond the academic setting. The final theme encompassed the idea of students developing critical thinking and writing skills as well as defining a sense of purpose through the coursework and related experiences.

De los Ríos (2013) studied 35 Chicana/o or Latina/o students who participated in a yearlong Chicana/o-Latina/o Studies course in their junior or senior year of high school. She found that the course provided students a safe environment to grapple with their identity, with several students developing an appreciation for their cultural heritage that had previously caused them shame. Other students reported the course helped them learn how to speak about their experience, with one student explaining that he “‘wasn’t so much searching for ‘myself’ or my ‘identity,’ but for the words, space, and community that could speak and understand my experience of [sexual, gendered, and racialized] difference” (p. 68). De los Ríos also found a similar theme from previous studies, that students felt a greater responsibility to better themselves so they could give back to their communities, which was attributed to the course. These students also talked about having strong appreciation for, and responsibility to, Ethnic Studies and social justice activism. The author also noted that Ethnic Studies courses can encourage students of color to see themselves as intelligent leaders, which can translate into those students becoming leaders on campus.

Another study focused on the community relevant pedagogy aspect of Ethnic Studies, and found that the Community Based Learning course within the Chicana and Chicano Studies program led to academic, social, and professional development for students (Vásquez, González Cárdenas, & García, 2014). Some of the specific areas where students reported growth include

research skills, comfort working with diverse populations, leadership, and self-efficacy. They ended the course feeling empowered by their abilities to overcome obstacles, solve real-world problems, and contribute to their communities, and some students described the experience as transformational. Students also reported that their achievements helped them feel more confident in their abilities and their potential, which translated into academic aspirations and a heightened desire to give back to their communities.

The research previously discussed has several strengths and weaknesses. One strength is that research has been done in various geographical regions, grade levels, course designs, and subjects. In regards to Sleeter's (2011) review, only one of the studies reviewed did not find positive outcomes, which was understood to be caused by a poor course design. No additional studies that the author is aware of have found neutral or negative results. However, one critique of the available literature is that it almost completely relies on small-scale and qualitative data. Not to diminish the importance of qualitative data and small studies, however it is important that we also have an understanding of aggregate patterns and outcomes. An additional weakness of the reviewed studies is that in regards to specifically college-level Ethnic Studies courses, most of the research was done in Chicana/o/Latina/o Studies classrooms and with predominantly Chicana/o/Latina/o students. A few of the studies also focused solely on Ethnic Studies majors, which is likely to focus on only those students who had a great experience with Ethnic Studies courses. Additional research that incorporates mixed method approaches and studies different types of courses and varying populations of students would be helpful in better understanding the impact of Ethnic Studies courses on student success.

Theories

There are multiple theories that could be considered when trying to understand the impact of Ethnic Studies courses on undergraduate students of color; however only those related to student success will be included. As seen through the brief review of student success literature, involvement and engagement are some of the biggest predictors of student success. Therefore, involvement (Astin, 1984/1999) and engagement (Harper & Quaye, 2009) will be discussed in addition to three other theories that have the capacity for increasing students' involvement and engagement: validation (Rendón, 1994), marginality versus mattering (Schlossberg, 1989), and sense of belonging (Hurtado & Carter, 1997).

Involvement and engagement. Astin (1984/1999) defined involvement as “the amount of physical and psychological energy that the student devotes to the academic experience” (p. 518). Engagement is similar to involvement, with a few key differences. One of the most relevant differences to this study is that engagement requires that students not only show up to campus activities, but that they are actively engaged in those activities (Harper & Quaye, 2009). Additionally, activities must be considered educationally purposeful in order for engagement in them to lead to the benefits of involvement or engagement. The National Survey for Student Engagement (NSSE) uses five principles of engagement in order to collect information about students' engagement in educationally purposeful activities: level of academic challenge, active and collaborative learning, student-faculty interaction, enriching educational experiences, and supportive campus environments (Harper & Quaye, 2009). Extensive research has found that students who are more engaged in educationally purposeful activities benefit in many different ways, one of which being persistence in college through graduation (e.g., Berger & Milem, 1999; Harper & Quaye, 2009, Pascarella & Terenzini, 2005; Tinto, 1993).

Ethnic Studies courses promote involvement and engagement because they follow many of the five previously mentioned NSSE principles. These courses have been shown to develop students' critical thinking abilities (Salcedo, 2013; Vasquez, 2011), which is one element that could signify academic challenge. Collaborative learning and enriching educational experiences are promoted through one of the hallmarks of Ethnic Studies, community responsive pedagogy (Tintiango-Cubales et al., 2014), which was confirmed in research by Salcedo (2013) as well as Vásquez, González Cárdenas, and García (2014). Previous studies have also found that these courses promote student-faculty interaction and can provide at least one area of the campus environment that is supportive for students of color (Nuñez, 2011; Salcedo, 2013; Vasquez, 2011).

Nuñez (2011) also found a direct connection between Ethnic Studies and classroom engagement and reported that “by participating in interactive class activities, students felt engaged and that their ideas were valued” (p. 648). She found that culturally affirming classes, the ability to speak Spanish with the professors, and the comfort with the professors and other students in class encouraged some students to feel comfortable participating in class discussions, when they normally might have been too intimidated. Additionally, these courses can promote validation, a feeling of mattering, and a sense of belonging, which are all theorized to increase students' level of campus involvement.

Validation. Validation theory emerged from a study of transition, student involvement, and student learning at four different types of colleges (Rendón, 1994).

Validation refers to the intentional, proactive affirmation of students by in- and out-of-class agents (i.e., faculty, student, and academic affairs staff, family members, peers) in order to: 1) validate students as creators of knowledge and as valuable members of the college learning community and 2) foster personal development and social adjustment” (Rendón Linares & Muñoz, 2011, p. 12).

While the researchers initially focused on the theory of involvement, one important realization that came out of this study related to the way that nontraditional students, referring to those who are racially or ethnically diverse, over 25, lesbian, gay, bisexual, or transgender (LGBT), first-generation, low socioeconomic status, immigrants, and/or students with disabilities, had a difficult time becoming involved in the institution. The researchers realized that validation might be the key variable that helps these students to become involved. Additional research has also found that validation can counteract the effects of discrimination on Latina/o and African American students, which can improve students' sense of belonging on campus (Hurtado & Guillermo-Wann, 2013).

Rendón Linares and Muñoz (2011) highlighted that Ethnic Studies classrooms are great examples of validating classrooms where “students can nurture a community, have professors who draw out student strengths, learn about their history, see themselves in the curriculum, and interact and develop close relationships with students and faculty who reflect their own backgrounds” (pp. 18-19). Additionally, through examining previous research relating to Ethnic Studies, it is apparent that some students felt validated by Ethnic Studies courses. For example, de los Ríos (2013) wrote the following:

Validating and honoring the lived experiences of youth, which is a hallmark of Ethnic Studies curricula generally and the course featured here specifically, can help students recenter themselves as strong and intelligent students of color and as student leaders on campus (p. 70).

Likewise, Salcedo (2013) found that the validation a student received in Ethnic Studies helped the student to feel alive and important, which challenged them to really think instead of doing the bare minimum to get by. As described previously, Vasquez (2011) reported that validation was one of the three central themes that encouraged retention of Chicana/o students who majored in Chicana/o Studies.

Marginality versus mattering. In 1989, Nancy Schlossberg introduced the concept of marginality versus mattering as a way to better understand why some students get involved in college and others do not. Marginality refers to feeling out of place or not belonging, and it can refer to a way of life, a personality type, or a short period of marginality that is typically caused by transition (Schlossberg, 1989). Marginality is a feeling that everyone has to deal with at some point in their lives, and it can lead people to feel that they do not matter to others. Mattering, on the other hand, “is a motive: the feeling that others depend on us, are interested in us, are concerned with our fate, or experience us as an ego-extension” (Rosenberg & McCullough, 1982, p. 165). Schlossberg (1989) succinctly defined mattering as “our belief, whether right or wrong, that we matter to someone else” (p. 9), and she further suggested that this belief motivates us. She recommended that environments should be created that cause all students to feel that they matter, which she argued will cause further student involvement.

In revisiting the reasons for the original momentum to establish Ethnic Studies departments, it is apparent that marginality was a factor. Many people of color felt that higher education was not reflecting the experiences of people of color (Banks, 2012), which could easily lead to a feeling of not belonging, or marginality. By centering people of color and their experiences, Ethnic Studies courses are inherently showing students that they matter. Additionally, especially on predominantly White campuses, these courses ask students to critically examine race and ethnicity in society, which might allow students to be the focus of positive attention, feel important, and be appreciated for the diverse perspectives that they bring to the course. Salcedo (2013) described a student experience wherein the student did not feel that she mattered during her K-12 education, but through the college Chicana/o Studies courses and her relationship with the professors, she realized that she mattered as a person, and that “her

thoughts mattered, not just to the professor, but also to herself” (p. 59). Nuñez (2011) also reported that students felt valued in their Ethnic Studies courses and Vasquez (2011) concluded that in feeling valued, students realized that they “were worthy of making contributions to their learning and the learning of others” (p. 130).

Sense of belonging. Maslow (1943) was the first to postulate that sense of belonging is an important component of human need, which he described in Maslow’s hierarchy of needs. He proposed that there are certain needs and motivations that arise as the more basic needs are met. According to his theory, once a person’s physiological and safety needs are met, they are motivated to meet needs of love and belongingness. This concept has been found in many retention theories, however one of the first articles that considered sense of belonging as its own retention theory in higher education was a 1997 article by Hurtado and Carter.

There are many positive benefits of students feeling a sense of belonging at their institution. For instance, Hausmann, Schofield, and Woods (2007) found that sense of belonging was associated with institutional commitment, and that sense of belonging and institutional commitment were the only two statistically significant variables that predicted a student’s intention to persist at the beginning of the school year. Additionally, Maestas, Vaquera, and Zehr (2007) believe that sense of belonging is critical for retention of students of color, and Strayhorn (2012) contends that sense of belonging leads to involvement, happiness, achievement, and retention.

Hoffman, Richmond, Morrow, and Salomone (2002) developed a measure for sense of belonging that included five factors: “perceived peer support, perceived faculty support/comfort, perceived classroom comfort, perceived isolation, and empathetic faculty understanding” (p. 248). Especially for students of color on a predominantly White college campus, Ethnic Studies

courses are one of the few places that can reduce perceived isolation and help students to feel comfortable within a classroom (Nuñez, 2011; Vasquez, 2011). For example, Nuñez found that some students were able to combat the feeling of loneliness or being “the only one” by finding others who they could identify with in their Ethnic Studies courses, which led to them feeling more comfortable and creating a community of friends. As mentioned previously, studies have found that Ethnic Studies courses have allowed students to develop stronger relationships with faculty (Nuñez, 2011; Salcedo, 2013; Vasquez, 2011), which could increase comfort with faculty and in the classroom, and could lead to a sense of empathetic faculty understanding.

Some research on Ethnic Studies has referenced sense of belonging directly. Salcedo reported that one student had a greater sense of belonging at the university due to being able to speak Spanish with his Chicana/o Studies professors. Nuñez (2009) learned that courses created around the concept of diversity led to both enhanced faculty interest in students’ development and increased levels of class participation by students, both of which she found to have positive associations with sense of belonging.

Summary

One of the most basic requirements for students to succeed in college is engagement (Berger & Milem, 1999; Habley, Bloom, & Robbins, 2012; Harper & Quaye, 2009; Kuh, Kinzie, Buckley, Bridges, & Hayek, 2006; Palmer, Maramba, & Holmes, 2012; Palmer & Young, 2009; Pascarella & Terenzini, 2005; Svanum & Bigatti, 2009; Tinto, 1993, 2002). Ethnic Studies, a field that challenges the notion that race is no longer important in the United States and instead critically examines race within societal context, is one potential avenue for fostering engagement (Sleeter, 2011). Ethnic Studies courses can encourage student engagement of receptive students by affirming and validating them (de los Ríos, 2013; Nuñez 2011; Rendón Linares & Muñoz,

2011; Salcedo, 2013; Vasquez, 2011), and helping them feel that they matter (Nuñez 2011; Salcedo, 2013). These courses can also help students create a sense of belonging (Nuñez, 2009, 2011; Salcedo, 2013) on campus, which is particularly necessary for students of color (Maestas, Vaquera, & Zehr, 2007).

Chapter 3: Research Methodology

Several researchers have found benefits to Ethnic Studies courses for students of color, and many of those benefits point to the potential for increasing engagement, retention, and graduation rates (Cabrera, Milem, Jaquette, & Marx, 2014; Cabrera, Milem, & Marx, 2012; de los Ríos, 2013; Nuñez, 2011; Salcedo, 2013; Vasquez, 2011). However, with the exception of one study that considered patterns of high school student success in relation to a Mexican American Studies program (Cabrera, Milem, & Marx, 2012; Cabrera, Milem, Jaquette, & Marx, 2014), previous research has focused on individual programs or individual students, rather than on any overall patterns. The research to-date is incredibly valuable and paints a portrait of the importance of Ethnic Studies; however, the predominantly qualitative nature of existing research does not explore any potential associations between Ethnic Studies courses and college graduation rates. Therefore, this exploratory study asks whether there are any statistically significant associations between students of color taking Ethnic Studies classes and graduating. The findings may be useful in informing policy and practice in regards to success strategies for students of color in higher education. This chapter explains the research design, and methodology, data source and sample, setting, variables, data preparation, research questions, and data analysis.

Research Design and Methodology

This quantitative, non-experimental, correlational study analyzed university records to investigate a possible association between students who have completed one or more Ethnic Studies courses and graduation. The quantitative nature of this research means that within the context of this study there is an objective reality of the world, and the researcher is attempting to understand that reality (Rovai, Baker, & Ponton, 2013). This does not mean the researcher

believes there is only one, objective reality. In fact, the researcher is actually a constructivist, or someone who believes in multiple realities (Perl & Noldon, 2000), who, in the spirit of Ethnic Studies, is very interested in paying attention to positionality, social context, and challenging the dominant narrative. However, several researchers have already addressed the subjective experiences of students of color taking Ethnic Studies courses (e.g. de los Ríos, 2013; Nuñez, 2011; Salcedo, 2013; Vasquez, 2011). Previous research leads to the need for a new type of study that analyzes aggregate indicators to determine if overall, there is an association between students of color taking Ethnic Studies courses and graduating. By centering people of color within this quantitative research, the author is simultaneously challenging the predominant usage of quantitative studies that marginalize people of color, as well as collapsing important groups and removing the inherent complexity within and among them (as explained by Perl & Noldon, 2000). For the latter offense, the researcher sincerely apologizes. The intent is not to essentialize students' experiences, but to seek new knowledge for ways that marginalized students can be successful in institutions that are unable to equitably serve these students. To be clear, it is the researcher's belief that students of color are no more or less adequate than any other group, but that institutions and social systems are at fault for inequitable treatment and outcomes of students of color. While the preferable method for addressing these inadequacies is through changing the systems, the researcher understands that such a change is not likely to occur right away. Therefore, it is important to seek ways to support students within the current systems, while also working to change those systems. One additional thing to keep in mind is that the researcher is a White woman. Although she continuously works to critically examine her own identity and seeks to understand the perspectives of others, it is inevitable that her life experiences as a White person have influenced this research in some way.

Correlational designs are used with a single population of at least 30 participants, and they seek to determine if there is a relationship between non-manipulated variables (Rovai, Baker, & Ponton, 2013). The data for this research come from administrative records collected by the university, and therefore the research design utilized is secondary analysis of data (Vogt, 2007). Analysis of administrative records has several strengths in this situation. The information was originally collected by the university because it was necessary for analysis by the institution, meaning that the data are not just peripheral, and are therefore likely to be more complete than they might otherwise have been (Hakim, 2000). Because the data come from institutional records, as opposed to attempting to contact current and previous students to ask about which courses they took and how long it took them to graduate, the number of courses taken and time-to-degree are considered accurate numbers based on objective, pre-defined terms. Additionally, the database is relatively large in number, and includes the entire population of students who met the basic qualifying characteristics within the time frame allowed.

Setting

The research took place at Oregon State University (OSU), a public research university in the Pacific Northwest. OSU is a land, sea, space, and sun grant institution that offers 200 undergraduate and 80 graduate degree programs (About Oregon State University, n.d.). Enrollment at the start of data collection, for the fall of 1999, was 16,091 students, with 2,111, or 13.1% of students, being considered “US minorities” (Faulhaber, Mallery, & Edwards, 1999). In the fall of 2013, the last year for graduation to be included in the dataset, the total enrollment was 27,925 students, with 5,764, or 20.6% of students in the “US minorities” category (Office of Institutional Research, 2013). The low percentage of students of color qualifies OSU as a predominantly White institution (PWI).

Data Source and Sample

Data were obtained from the Registrar after receiving clearance from the Institutional Review Board. The population studied includes all domestic undergraduate students of color 18 and older who enrolled at the institution between the fall of 1999 and the fall of 2008 with less than 36 college credits. All deceased students, or those who passed before completion of their studies, as well as confidential students were excluded. Because the data come from all students who meet these basic requirements, there is no issue with sampling error (Rovai, Baker, & Ponton, 2013); although it does mean that any ability to generalize these results to other institutions is severely limited. Only those students who were 18 or older were included due to the difficulty of including people under 18 years old in research. The year of 1999 was chosen for the first year to consider because the Ethnic Studies program was fully operational starting in 1998, and Ethnic Studies courses were identified as baccalaureate core courses (meaning some of the courses could meet general education requirements for graduation) in 1999. The final enrollment year used was 2008 so that all students had at least six years to graduate by the time the data were collected. Students who had 36 or more college credits at the time of enrollment were excluded because the original focus for the research was on first-year, as opposed to transfer, students. Unfortunately, as the availability of data caused changes in the study, the data request was not modified to include a broader range of undergraduate students. The final sample included 4,958 students.

Domestic undergraduate students were chosen because of the unique racial/ethnic context of the United States and the fact that Ethnic Studies courses typically focus on racial and ethnic experiences within the United States (Yang, 2000). Additionally, international students were excluded due to their differing transitional experiences and potential for visa issues that might

skew the results. Students of color are the focus of this research, and were identified through self-selection on admissions forms. Data were requested for anyone who marked one of more of the following options: American Indian/Alaskan Native, Asian/Pacific Islander, Black or African American, Hispanic, Middle Eastern, Other, Multiple, and None of the Above. Those who marked Unknown, White, White in addition to Hispanic, or who were considered non-resident aliens, were not included. Since Hispanic is a marker of ethnicity rather than race, it is entirely possible that students who identify as Hispanic also identify as White. Because the focus is on students of color, and because I have no other way of detecting whether a student who marks both Hispanic and White identifies as a student of color, I elected to exclude those students.

Variables

Although many variables were originally requested from the institution, due to the small sample sizes in various categories and the need to maintain the confidential records of students, only a few variables were obtained. These were:

- random identification number
- number of Ethnic Studies courses passed (D- or above) during undergraduate career at this institution (0, 1, 2, 3+)
- years to graduation from this institution (4 years or less, more than 4 but less than or equal to 6 years, more than 6 years, did not graduate)

Data Preparation

After receiving permission for the data from Rebecca Mathern, the Registrar, as well as clearance from the Institutional Review Board to complete the study, data were gathered by Amanda Champagne under direction of the Registrar. The final dataset was delivered to the researcher already de-identified, with no groups of less than 10 students, and with no missing or

incomplete data. I first had to transform the information into variables that could be used with statistical software to run the required tests. The initial data came in Microsoft Excel format and included a randomized identification number for each student, the number of Ethnic Studies courses passed (0, 1, 2, 3+), and years to graduation (<=4, <=6, >6, #N/A). In order to change all responses to numbers only, I found and replaced all “3+” responses in the column for number of Ethnic Studies courses passed to “3.” There were 162 replacements made, which is consistent with the 162 instances of students who took 3+ classes. Next, I changed the years to graduation variable. While I was changing the format of this data, I also combined the students who graduated in more than four but less than or equal to six years with those who graduated in more than six years. I did this because of the small amount of students who graduated in over six years and the need for expected frequencies to be large when using the chi-square test of independence. I found and replaced “#N/A” with 1, “>6” and “<=6” with 2, and “<=4” with 3. I verified as I went that the correct number of replacements were made, and I randomly checked the original dataset with the transformed responses to make sure that the changes were correct. Next I created a dichotomous variable for “took ES courses” (0=no, 1=yes) and “graduated” (0=no, 1=yes) by using the IF and OR functions within Excel. For instance, my logic for the first response is if column B (number of ES courses), row 2 equals 1, 2, or 3 (classes), column D, row 2 equals 1, and if false, column D row 2 equals 0 [=IF(OR(B2=1,B2=2,B2=3),1,0)]. I applied the logic to the entire column, and once again spot-checked to ensure that the changes were accurate.

Next, I imported the data into IBM SPSS Statistics, which is software available for use by students of Oregon State University for free. After importing the data, I used the Variable View to label the data and the values, and determine the measure. I chose the category of nominal for

all data except the number of Ethnic Studies courses taken, for which I chose ordinal. Ordinal was chosen because the number of courses taken can be ordered, although the categories are not equally spaced due to the final value of 3+ (Rovai, Baker, & Ponton, 2013).

Research Questions and Data Analysis

Question 1: Is there an association between students of color completing Ethnic Studies courses and graduating?

- *1st Null hypothesis.* There is no statistically significant association between students of color completing Ethnic Studies courses and graduating.

Question 2: Is there an association between the number of Ethnic Studies courses completed by students of color and graduation?

- *2nd Null hypothesis.* There is no statistically significant association between the number of Ethnic Studies courses completed and graduation.

Question 3: Is there an association between students of color completing Ethnic Studies courses and time-to-degree?

- *3rd Null hypothesis:* There is no statistically significant association between students of color completing Ethnic Studies courses and time-to-degree.

A Pearson chi-square contingency table analysis, or chi-square test for independence, within SPSS software was utilized in order to test the three previous null hypotheses. This test was chosen because it can test for independence or association between two or more nominal variables (Rovai, Baker, & Ponton, 2013). This test has several requirements. First, it needs a random selection of samples so that results can be generalized to the target population (Rovai, Baker, & Ponton, 2013). However, this is not necessary for my research since the entire target population that was available at the time of the study was included. Next, the variables must be

independent from each other, reported as frequencies and not be in percentages, and the categories have to be mutually exclusive and exhaustive (Rovai, Baker, & Ponton, 2013). For example, that means the same students cannot be included more than once, and students need to have either graduated or not graduated, they cannot have done *both*, or *neither* of those two options. Finally, each cell of my data must have an expected frequency of at least five, with some statisticians preferring 10 (Rovai, Baker, & Ponton, 2013). These data are ideal for this test as opposed to others because the variables are nominal and categorical, rather than interval or ratio, the categories are mutually exclusive and exhaustive, the sample sizes are large, and the results are not normally distributed. Phi and Cramer's V were also used to determine the effect size of the association found through the Pearson chi-square test, as the chi-square statistic only finds whether there is an association, and says nothing of the magnitude of the association. For Question 1, relative risk was also reported as a way to better understand the "risk" of graduating for students of color who took Ethnic Studies courses as opposed to those who did not. For Questions 2 and 3, standardized and adjusted residuals were analyzed in order to see which cells within the contingency table exhibited a significant association.

Threats to Validity

The threats to validity in this study largely come from data and variables that are not tracked by the institution or were not available to use during this study. Because no identifiable data would be given from the institution, most of the variables requested were denied. Graduation rates could be affected by a large amount of variables, such as age of students, marital status, specific racial or ethnic group, income, first generation status, living arrangements, previous achievement, college grade point average, participation in academic

support services, and co-curricular involvement. However, data on these variables were unavailable to the researcher due to FERPA concerns and protection of student data.

Summary

This study was a quantitative, non-experimental, correlational study that examined institutional records to look for an association between students of color taking Ethnic Studies courses and graduating. The data were obtained from the Registrar and included students of color who enrolled between 1999 and 2008 at Oregon State University, a public land grant predominantly White institution in the Pacific Northwest. The variables from the Registrar included the number of Ethnic Studies courses taken and the time-to-degree. IBM SPSS Statistics was used to complete chi-square tests for independence on the three null hypotheses, Phi and Cramer's V and relative risk were reported when relevant, and standardized and adjusted residuals were analyzed for questions two and three.

Chapter 4: Analysis

The goal of this study was to determine if there is an association between students of color taking Ethnic Studies courses and graduating. This chapter includes descriptive statistics of the sample and an analysis of each of the three research questions using a chi-square test of independence and Phi or Cramer's V values. Research questions two and three also include standardized and adjusted residuals, as these numbers are necessary to fully answer the questions and interpret the results.

Descriptive Statistics

The sample included all domestic students of color who were 18 or older and enrolled at Oregon State University with 35 or less credits between 1999 and 2008. There were a total of 4,958 students, with zero missing variables. Of those students, 3,796 (76.6%) did not take any Ethnic Studies courses. Eight hundred students (16.1%) took one Ethnic Studies course. Two hundred students (4%) took two Ethnic Studies courses. One-hundred and sixty-two students (3.3%) took three or more Ethnic Studies courses. Therefore, 1,162 (23.4%) took at least one Ethnic Studies course. Of the total sample, 1,483 students (29.9%) graduated in four or less years. One-thousand, four-hundred, and seventy-eight students (29.8%) graduated in more than four years, with 159 of those students graduating in more than six years. It is important to remember that the total number of students who graduated at the time of this study is likely smaller than the final number might be in another five years, as some of the students who enrolled in 2008 have not yet graduated. The previous totals add up to 2,961, or 59.7% of students who graduated by the time of this study, as opposed to the 1,997 students (40.3%) who have not graduated. Please see Figures 1 and 2 for a visual representation of the makeup of the sample.

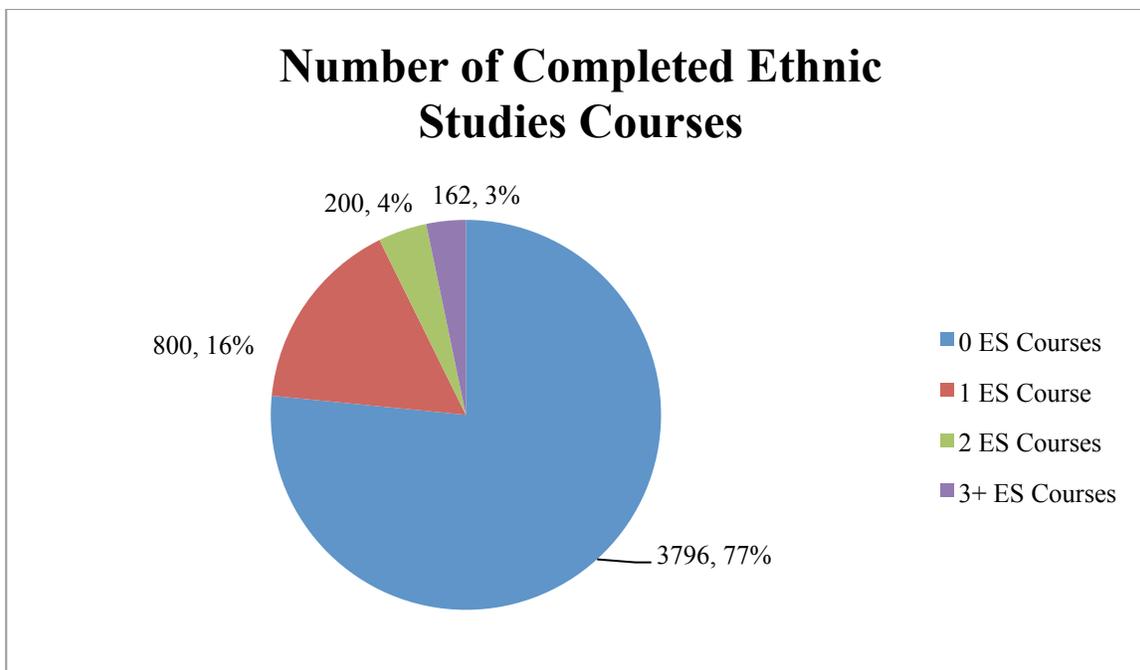


Figure 1: Number of completed Ethnic Studies courses

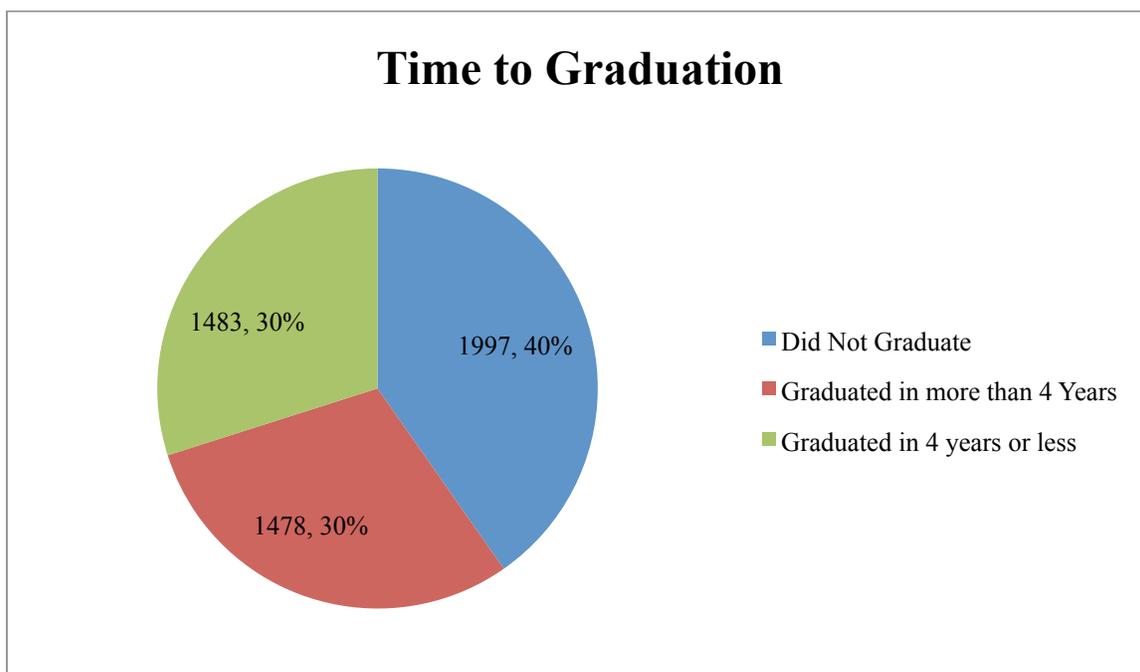


Figure 2: Time to graduation

Analysis of Research Question 1

Question 1: Is there an association between students of color completing Ethnic Studies courses and graduating?

- *1st Null hypothesis.* There is no statistically significant association between students of color taking Ethnic Studies courses and graduating.

The first research question refers to the overall data in terms of taking Ethnic Studies courses (yes or no) and graduating (yes or no). Before running any statistical tests, it is helpful to look at the data to see if there are any obvious patterns. As can be seen in Figures 3 and 4 below, the graduation rate for students that completed at least one Ethnic Studies course was 13% higher than the graduation rate among students who did not complete Ethnic Studies courses. Figure 5 demonstrates the different patterns seen among students who did and students who did not take Ethnic Studies courses.

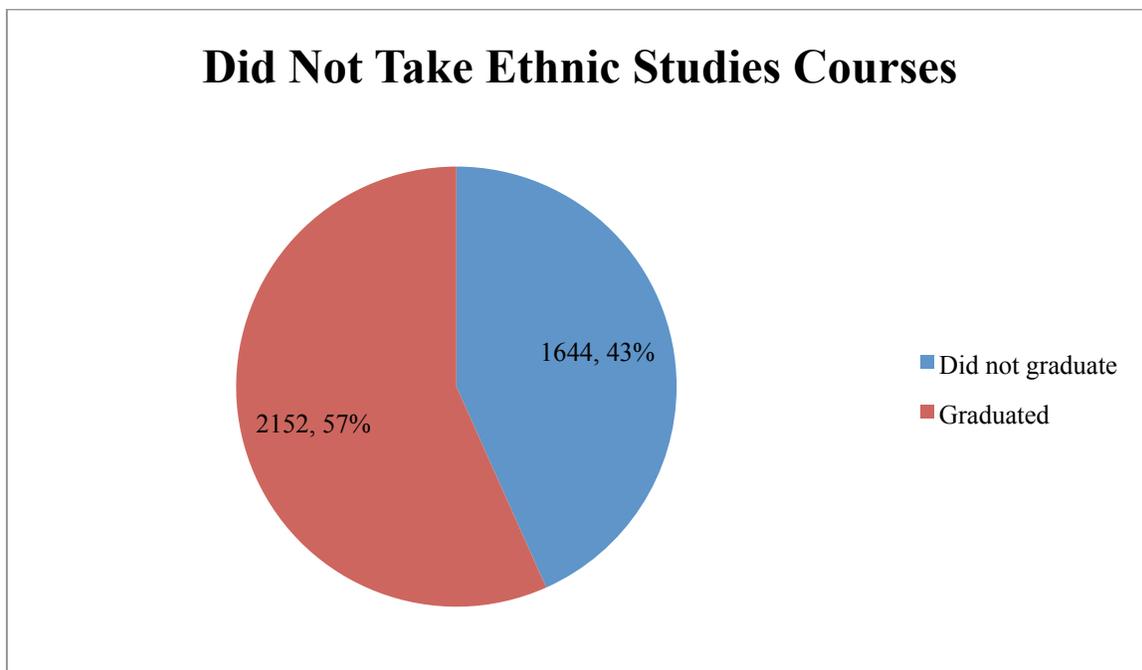


Figure 3: Did not take Ethnic Studies courses

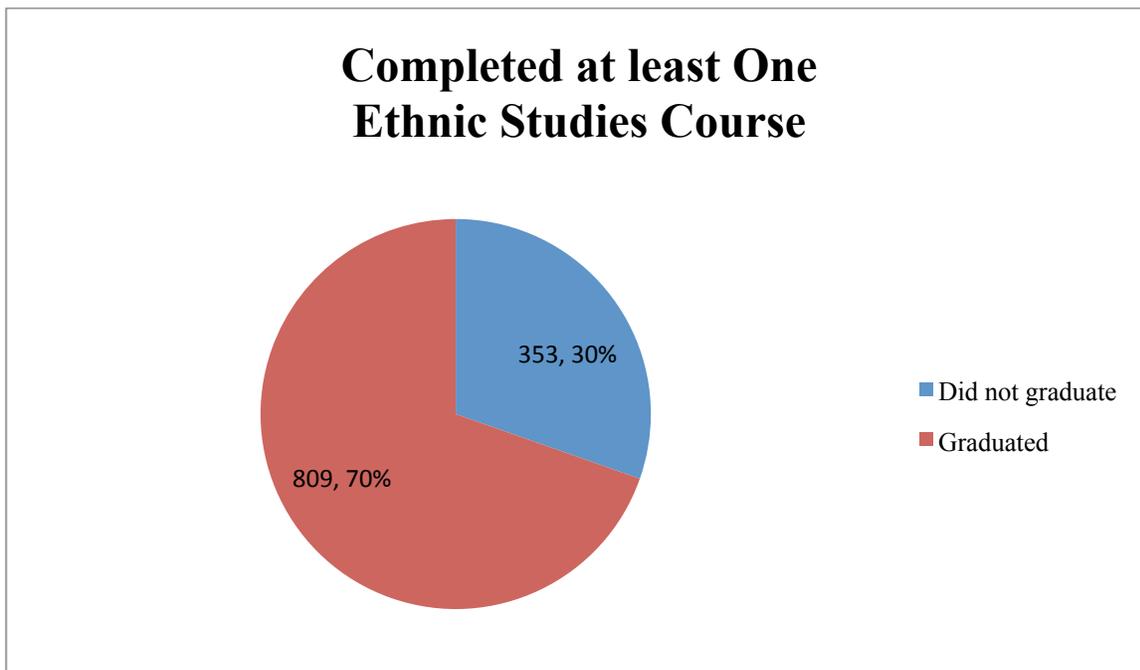


Figure 4: Completed at least one Ethnic Studies course

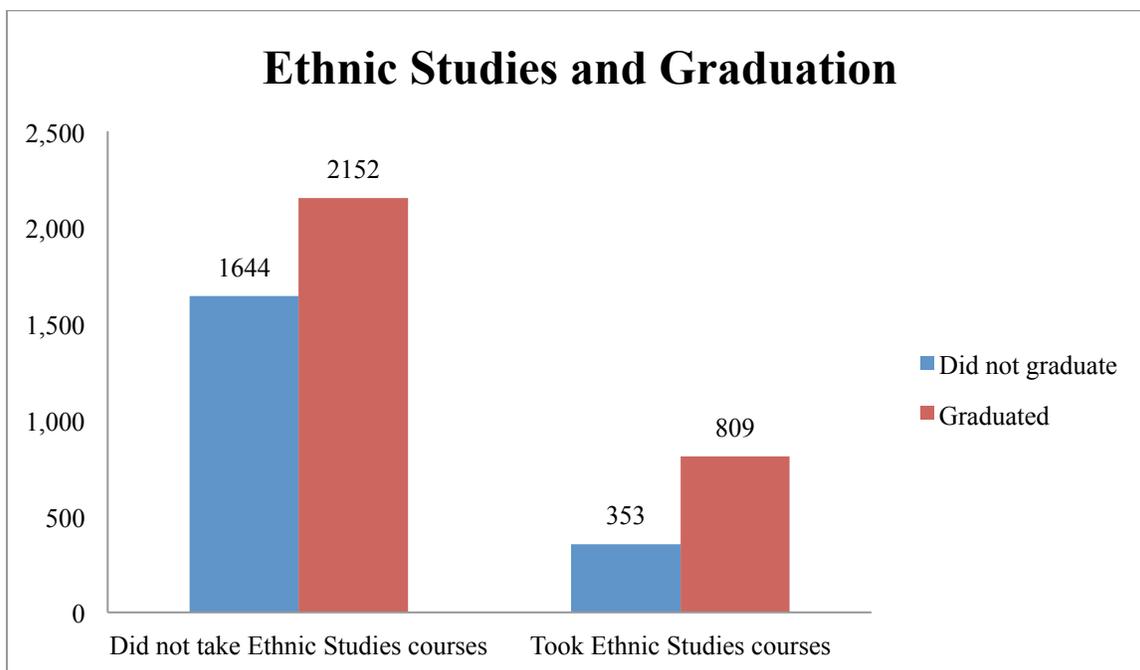


Figure 5: Ethnic Studies and graduation

The chi-square, two-by-two test was used to determine if there is a statistically significant association between Ethnic Studies course completion and graduation. This test was chosen because it can be used with non-parametric data and it does not require a normal distribution. Because this is only a two-by-two table, the Yates correction for continuity was also applied. The results were $\chi^2(1, N=4,958)=61.83, p<.001$, indicating that we must reject the null hypothesis. The Pearson chi-square coefficient was 61.834, with the Yates correction coefficient at 61.297. Both numbers were statistically significant with 99.9% accuracy. The Phi value was .112 with a significance of less than .001. These results indicate that the two variables, completing Ethnic Studies courses and graduating, are not independent. The Phi value shows that the dependence of the variables accounts for about 11.2% of the variability in results.

Now that we know that the two variables are related, we must determine how they are related. This was accomplished through analyzing the chi-square table to compare the expected and actual results, as well as through finding the relative risk. The expected number of students who did not take Ethnic Studies courses and did not graduate was 1,529, and the actual number was 1,644, indicating that of those who did not take Ethnic Studies, less students graduated than would have if these two variables were not related. Likewise, the expected number of students who both took Ethnic Studies and graduated was 694, whereas the actual number was 809. This demonstrates that more students who took Ethnic Studies graduated than would be expected for unrelated variables. By examining each square of the two-by-two table, it is apparent that students who took Ethnic Studies courses graduated more than expected, and students who did not take Ethnic Studies graduated less than expected. See Table 1 for the cross-tabulation table that includes actual and expected counts in each area.

Table 1: Cross-tabulation table: Graduated, completed ES courses

Cross-tabulation Table: Graduated, Completed ES Courses				
Graduated		Completed ES Courses		Total
		No	Yes	
No	Count	1644	353	1997
	Expected Count	1529	468	
Yes	Count	2152	809	2961
	Expected Count	2267	694	
Total	Count	3796	1162	4958

To better understand the association, relative risk was found. The relative “risk” of taking Ethnic Studies courses and graduating was 1.228, meaning that students of color who took Ethnic Studies courses were 1.23 times, or 23%, more likely to graduate than those who did not take Ethnic Studies courses.

Analysis of Research Question 2

Question 2: Is there an association between the number of Ethnic Studies courses completed by students of color and graduation?

- **2nd Null hypothesis.** There is no statistically significant association between the number of Ethnic Studies courses completed and graduation.

The first research question involved overall patterns, whereas this question was designed to investigate whether *the number of Ethnic Studies courses taken* has an association with graduation. Because the same overall data from question one were used, the chi-square coefficient and measure of effect-size (Cramer’s V in this case) are likely to be very similar. Therefore, in order to fully answer this question, an analysis of standardized and adjusted residuals for each cell in the table was applied to see which cells included statistically significant associations. The results were $\chi^2(3, N=4,958)=62.06, p<.001$. The Pearson chi-square coefficient was 62.064, which was significant beyond 99.9% accuracy, indicating a statistically

significant association between the number of courses taken and graduating—leading once again to a rejection of the null hypothesis. The Cramer’s V value was .112, indicating that the association accounts for 11.2% of the variability of the results. Once again, the pattern of the association must be determined by analyzing the cross-tabulation results. The full chart is included below as Table 2, and a few examples demonstrate the findings. When looking at students who completed one Ethnic Studies course, they were underrepresented in the cell related to not graduating and overrepresented in the cell representing graduating. The same holds true for those who took two Ethnic Studies courses and those who took three Ethnic Studies courses. The opposite held true for students who took zero Ethnic Studies courses, as previously determined in Research Question 1.

Although the basic table shows the patterns, it does not allow us to fully understand if each of those associations is significant. Thus standardized residuals were examined to test whether the difference between expected and actual results in each cell were significant. The residuals show that 6 of the 8 cells were significant to at least a 95% confidence interval (± 1.96), which includes those highlighted in blue and green in Table 2. Three of the eight cells were significant at a 99% confidence level (± 2.58), highlighted in green in Table 2. The two cells that did not have significant results were those related to graduating and taking either two Ethnic Studies courses or taking three or more Ethnic Studies courses, which is highlighted in yellow in Table 2. There was a statistically significant association between not taking two and three or more Ethnic Studies courses and *not graduating*, however the association relative to *graduating* does not meet statistical significance at a confidence interval of 95%. These data demonstrate that taking zero Ethnic Studies courses and taking one course show the most significant associations with graduation. An analysis of the adjusted residuals verifies that taking

zero courses and taking one course had the most impact on the chi-square coefficient, as the effect of taking three or more courses impacted the chi-square coefficient by only three (adjusted residual of 3.0), and the effect of taking zero courses impacted the chi-square coefficient by almost eight (adjusted residual of 7.9). This is further reaffirmed by Figure 6 below, where the pattern for zero courses and for one course almost mirror the overall results seen in Question 1.

Table 2: Cross-tabulation table: Graduated, number of ES courses completed

Cross-tabulation Table: Graduated, Number of ES Courses Completed						
Graduated		# Completed ES Courses				Total
		Zero	One	Two	Three+	
No	Count	1644	243	63	47	1997
	Expected Count	1529	322.2	80.6	65.3	
	Standardized Residual	2.9	-4.4	-2	-2.3	
	Adjusted Residual	7.9	-6.2	-2.6	-3	
Yes	Count	2152	557	137	115	2961
	Expected Count	2267	447.8	119.4	96.7	
	Standardized Residual	-2.4	3.6	1.6	1.9	
	Adjusted Residual	-7.9	6.2	2.6	3	
Total	Count	3796	800	200	162	4958

*Green cells were significant beyond 99%, blue cells were significant beyond 95%, and yellow cells did not reach 95% significance.

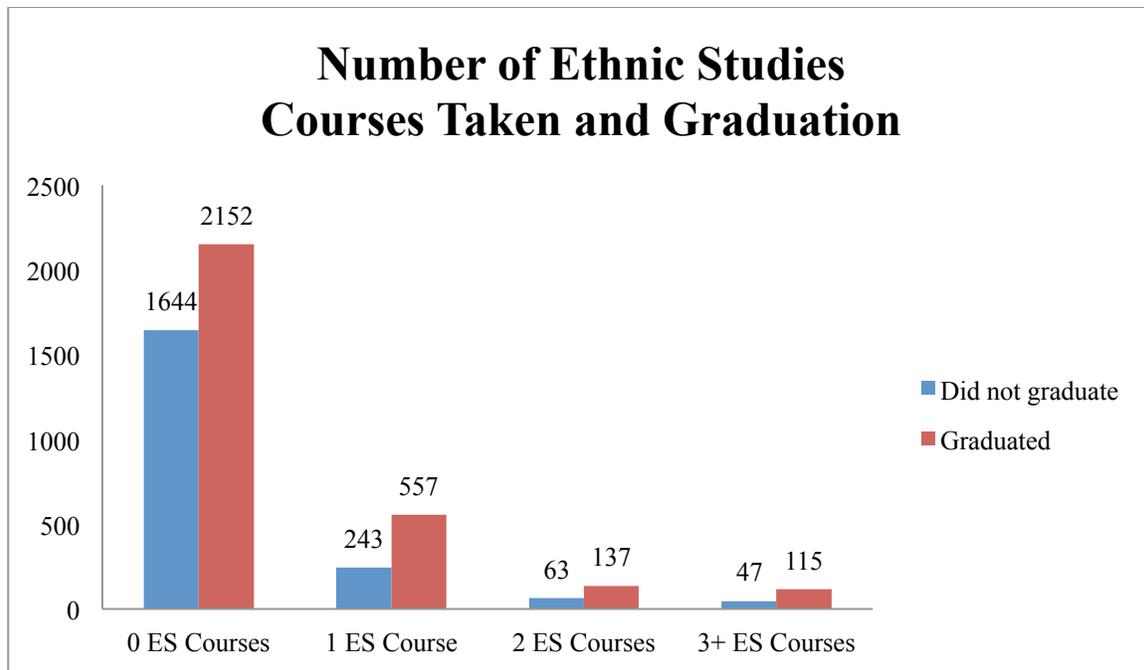


Figure 6: Number of Ethnic Studies courses taken and graduation

Analysis of Research Question 3

Question 3: Is there an association between students of color completing Ethnic Studies courses and time-to-degree?

- **3rd Null hypothesis:** There is no statistically significant association between students of color completing Ethnic Studies courses and time-to-degree.

After investigating the overall association between Ethnic Studies and graduation, as well as the association between the number of Ethnic Studies courses and graduation, this final research question was designed to assess whether there is any association between taking Ethnic Studies courses and *time-to-graduation*. Once again, the chi-square test for independence was utilized, followed by an analysis of standardized and adjusted residuals. The results were $\chi^2(2, N=4,958)=69.15, p<.001$. The Pearson chi-square coefficient was 69.154 with a significance level of less than .001. This indicated that we must reject the null hypothesis that there is no association between the variables. The Cramer's V value was .118, also with a significance level

of less than .001, indicating that the association between the variables accounts for 11.8% of the variance in the results. The same patterns as previously discussed were evident in this cross-tabulation (Table 3), with each area of expected versus actual counts showing an overrepresentation between taking Ethnic Studies courses and graduating, and an underrepresentation of not taking Ethnic Studies and graduating. However, analyzing standardized residuals helps once again to illuminate which cells are significant. In regards to not graduating, both options for taking and not taking Ethnic Studies courses were significant through 99% confidence. In viewing the adjusted residuals for these, it is apparent that these two cells had the most impact on the overall chi-square statistic, with an adjusted residual of 7.9. Graduating in over four years, in regards to both taking Ethnic Studies courses and not taking them, was also significant through 99% confidence, and this result impacted the overall test statistic just slightly less than the previously mentioned one. However, graduating in four or less years does not appear to be statistically related to taking Ethnic Studies courses, as can be seen in the standardized residuals of -.8 and 1.4. Therefore, Ethnic Studies course completion is only statistically related to graduation when students did not graduate or when they graduated in more than four years. Table 3 and Figure 7 can be reviewed to better understand these results.

Table 3: Cross-tabulation table: Time-to-degree, completed Ethnic Studies courses

Cross-tabulation Table: Time-to Degree, Completed Ethnic Studies Courses

		Completed ES Courses		
Time-to-Degree		No	Yes	Total
Did not graduate	Count	1644	353	1997
	Expected Count	1529	468	
	Standardized Residual	2.9	-5.3	
	Adjusted Residual	7.9	-7.9	
Graduated in more than 4 years	Count	1043	435	1478
	Expected Count	1131.6	346.4	
	Standardized Residual	-2.6	4.8	
	Adjusted Residual	-6.5	6.5	
Graduated in 4 years or less	Count	1109	374	1483
	Expected Count	1135.4	347.6	
	Standardized Residual	-0.8	1.4	
	Adjusted Residual	-1.9	1.9	
Total	Count	3796	1162	4958

*Green cells were significant beyond 99% and yellow cells did not reach 95% significance.

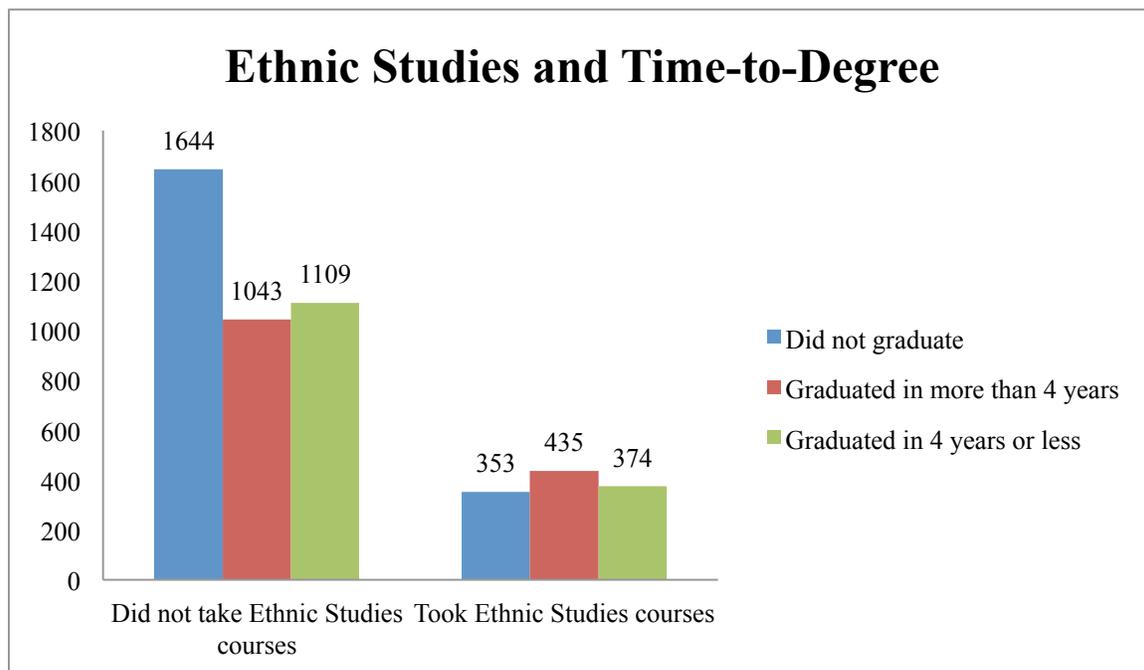


Figure 7: Ethnic Studies and time-to-degree

Summary

This chapter has provided descriptive statistics and data analyses completed in exploring the three research questions. A chi-square test of independence was used for each of the questions, and the resulting chi-square coefficient was at least 60, which was statistically significant beyond 99.9% confidence. The resulting effect sizes included a Phi value of .112 in Question 1, a Cramer's V value of .112 in Question 2, and a Cramer's V value of .118 in Question 3. These values mean that roughly 11% of the variance in graduation patterns was explained through the association with Ethnic Studies course completion. Through analyzing the resulting chi-square table for each question, it was apparent that students who completed Ethnic Studies courses were more likely to graduate, and those who did not complete the courses were less likely to graduate. In Question 2, the use of standardized residuals showed that of the four options for taking Ethnic Studies courses (0, 1, 2, 3+), taking zero courses and taking one course were most significantly related to graduation results, with those who took one course graduating at higher rates than expected. Standardized residuals for Question 3 showed that there was not a statistically significant association between taking Ethnic Studies courses and graduating within four years. There was, however, a strong association between taking Ethnic Studies and graduating in over four years and not taking Ethnic Studies and not graduating at all.

Chapter 5: Discussion

This study sought to determine if there is an association between university students of color completing Ethnic Studies courses and graduating. Currently, there is a strong national, regional, and institutional emphasis on student success and graduation rates (Lumina Foundation, n.d.; Obama, 2009; Oregon Learns, 2011; University Innovation Alliance, 2015). Since students of color typically graduate at substantially lower rates when compared to their White peers in the United States (National Center for Education Statistics, 2014), it is necessary to explore all factors that may be related to graduation for this population.

Ethnic Studies was established as a way of centering the perspectives and experiences of people of color, as “the roles of people of color were either distorted or left out of American history” (Banks, 2012, p. 468). Importantly, studies have found educational benefits resulting from students of color participating in Ethnic Studies courses. These benefits include increased engagement with the material and academic achievement (Sleeter, 2011), heightened comfort speaking in class and forming relationships with classmates and professors (Nuñez, 2011), stronger motivation to graduate and give back to their communities (Vásquez, González Cárdenas, & García, 2014; Salcedo, 2013), and a higher rate of passing standardized tests required for high school graduation (Cabrera, Milem, & Marx, 2012). Despite the previous research that has found that Ethnic Studies courses can benefit students of color, aggregate patterns related to college student success and Ethnic Studies have not previously been studied.

In order to ascertain if there is any association between students of color at Oregon State University taking Ethnic Studies courses and graduating, institutional data on all students meeting the test criteria were obtained. The data set included a total of 4,958 students of color who enrolled between 1999 and 2008. The first research question tested for an association

between completing Ethnic Studies courses and graduating. The second question looked more specifically at the number of Ethnic Studies courses taken, in order to further understand the association found from answering question one. The final question was focused on finding any associations between Ethnic Studies course completion and time-to-degree. The chi-square test for independence was utilized in answering each question, and the Phi and Cramer's V values were used to better understand the size of the effect of any associations found. Question 1 also included relative risk, and Questions 2 and 3 required the use of standardized residuals in order to recognize which specific cells, and therefore which specific associations, were statistically significant. This chapter discusses the findings, recommendations, limitations, implications, and conclusions from the study.

Discussion of the Findings

Research Question 1: Completing Ethnic Studies courses and graduating. Through data analysis described in chapter four, it was found that at Oregon State University, there is a statistically significant association between students of color completing Ethnic Studies courses and graduating. Although the chi-square test does not allow for us to state a direction for this association, through analyzing the chi-square table and the descriptive statistics, we can see that students of color who took Ethnic Studies courses graduated at higher rates than their peers of color who did not take Ethnic Studies courses. Additionally, the relative risk of graduating after taking Ethnic Studies courses was found to be 1.228, meaning that students of color who took Ethnic Studies courses were 23% more likely to graduate than those who did not take any Ethnic Studies courses.

The effect size of the association between taking Ethnic Studies courses and graduating was relatively small at around .11, which is considered to be a weak association according to Rea

and Parker (as cited in Rovai, Baker, & Ponton, 2013). However, it is important not to dismiss small effect sizes, as according to Durlak (2009), “it is not only the magnitude of effect that is important, but also its practical or clinical value that must be considered” (Judging ES in Context, 1st para.). Likewise, Hedges and Hedberg (2007) argued that especially within educational policy, an effect size of .2 or smaller might be of policy interest. Considering the staggering amount of variables that are known to impact graduation rates and were not included in the current study, the fact that 11% of the variance in graduation was related to Ethnic Studies course completion is surprisingly high and worth further consideration. Research Questions 2 and 3 give a better understanding of the overall association found in Question 1.

Research Question 2: The number of Ethnic Studies courses taken. From analyzing the standardized and adjusted residuals in Question 2, it was found that a large part of the association between Ethnic Studies course completion and graduation is attributed to students who took zero Ethnic Studies courses (and graduated at lower rates), and those who took one course (and graduated at higher rates), although those who took two and three or more courses also impacted the chi-square test result. One possibility is that taking one Ethnic Studies course is all that is needed to increase the likelihood of graduation for students of color. It is possible that taking just one course acquainted students with the concepts and supports that they needed to complete their education.

The association between taking two or more Ethnic Studies courses and graduating was not statistically significant. While students who did not graduate were less likely to have taken two or more Ethnic Studies courses, and that association was statistically significant, students who did graduate did not have a significant association with taking two or more Ethnic Studies courses. One thing to note is that not as many students took two or three or more courses,

therefore it is completely possible that with greater numbers, this result would have reached significance. Because the expected counts were relatively low (although high enough to run this test), it is more difficult to show significance. It makes sense that students who did not graduate were less likely to have taken two or more Ethnic Studies courses, as students who do not graduate typically take less courses overall. However, it is interesting that students who took two or more courses did not graduate at significantly higher rates. The previous finding seems particularly note-worthy because one of the main concerns with the research design is that students are more likely to graduate when they complete more courses successfully. Because of the expected association between taking courses (any courses) and a higher likelihood of graduating, it would make more sense if taking more Ethnic Studies classes had been associated with graduating. This finding contradicts the argument that any patterns within graduation rates are due to completing courses in general. At the same time, this finding could be evidence that Ethnic Studies course completion does not lead to higher graduation rates, otherwise more classes would mean more success.

Another possible explanation is that students who chose to take multiple Ethnic Studies courses are the same students who most needed them. For example, it is possible that students who ended up taking two or more Ethnic Studies courses were the ones most at risk for not completing college in the first place, and so it is not accurate to compare their graduation rates with all students of color. Those students could be at a higher risk for not completing based on a variety of different things, such as being first generation college students or feeling especially isolated in this particular campus environment. In order to test this possibility, it would be necessary to obtain more information about students enrolled in Ethnic studies classes, including Pell grant eligibility, first generation college student status, or specific ethnic heritage. This

additional information might allow further comparison between student populations included in the study. Interviewing students and asking about their perspectives might also help us to better make sense of this result. It is likely that there are several other explanations for why the association was statistically significant in relation to students who took zero courses and students who took one course, and not for students who took more courses. Unfortunately, without the ability to examine more data, disaggregate the information further, or contact students and ask for their experiences and opinions, it's impossible to know the true causes of the patterns found.

Research Question 3: Time to degree. In relation to time-to-degree, the standardized residuals indicated that completion of Ethnic Studies courses was significantly related to graduation only in situations where students did not graduate or when they graduated in more than four years. For students who graduated in four or less years, no significant association was found.

It is possible that the students who were most likely to drop out are also the students who most benefitted from taking Ethnic Studies courses. Taking these courses could potentially have benefitted these students and contributed to their graduation, even if that graduation did not occur within four years. Another potential interpretation is that students who attend school longer have a higher chance of taking Ethnic Studies courses, because they take more classes overall. Once again, additional data, and particularly the chance to ask students about their experiences, would be necessary for a more informed explanation.

The results of this study are congruent with previous research as well as relevant theoretical constructs. Although no previous studies have examined potential associations between Ethnic Studies and college graduation rates, previous studies have found benefits from Ethnic Studies courses (de los Ríos, 2013; Nuñez, 2011; Salcedo, 2013; Sleeter, 2011; Vasquez,

2011) as well as a positive correlation between participating in Ethnic Studies courses and graduating from high school (Cabrera, Milem, & Marx, 2012). Additionally, because Ethnic Studies courses have been found to lead to increased involvement and engagement (Nuñez, 2011), validation (de los Ríos, 2013; Nuñez 2011; Rendón Linares & Muñoz, 2011; Salcedo, 2013; Vasquez, 2011), mattering (Nuñez 2011; Salcedo, 2013), and a heightened sense of belonging (Nuñez 2011; Salcedo, 2013), it makes sense that an association between Ethnic Studies course completion and graduation rates exists. While this study cannot show that Ethnic Studies courses cause students to graduate at higher rates than their peers who do not take Ethnic Studies, it has demonstrated that it is possible that such a relationship does exist.

Recommendations

Based on previous research, as well as the findings from this study, there are some practical recommendations that institutions as well as student and academic affairs professionals might want to consider. This research established an association between taking Ethnic studies and graduating, but did not seek to explore or establish a causal relationship; therefore, recommendations should be considered cautiously.

Curry-Stevens, Lopezrevorido, and Peters (2013) incorporated several Ethnic Studies-related recommendations into a report of research-based policies for eliminating racial disparities in K-12 education. Their recommendations were based on Sleeter's (2011) review of the literature of the benefits associated with participating in Ethnic Studies courses. The recommendations included offering more Ethnic Studies courses, providing culturally affirming curriculum, and requiring "curriculum to be available in all schools that affirms and centers the contributions of all students' heritage to the fabric of the USA" (p. 9). The previous recommendations are consistent with the findings from the current study as well as the literature

on Ethnic Studies and students of color, and are therefore recommended for consideration by colleges and universities as well. Additionally, because of the misunderstandings, politics, and controversies that surround Ethnic Studies, it is recommended that institutions advocate for Ethnic Studies programs on their own campuses and beyond, and continue to study and share the benefits of students taking these courses. Finally, because Ethnic Studies is a field that many students have not previously encountered, it is important that campus professionals with direct contact with students are aware of the courses that are offered and can speak about them or direct students to others with more knowledge about them.

Limitations

There were many limitations to this research. The most important limitation for non-experimental studies is that a relationship or an association does not imply causation. This means that Ethnic Studies courses are not necessarily the cause of higher graduation rates, which would need to be determined through a different type of study. The association that was found could be purely coincidental or related to other variables that were not measured, or it could simply mean that students are more likely to graduate when they successfully complete more classes, meaning that the same patterns could be found with different types of courses. This type of limitation is nearly impossible to overcome, as that would require a controlled experiment, something very difficult to do in a field as complicated as education.

A second major limitation is that the data were only collected at one institution, meaning that the findings might not be relevant at another institution. While it would have been preferable to include data from more than one institution, the researcher determined that the difficulty and time required to obtain permission and a data set from additional institutions would have made this research unmanageable within the timeframe.

A third limitation is that the breadth and depth of the data available were limited by the manner of data collection. Only data that were originally collected by the Registrar's Office of Oregon State University were available, and the questions that can be addressed with secondary data are limited (Hakim, 2000). That is, while the data available to the researcher included all students who met a specified and limited criteria, and therefore sampling was not an issue, there are many other important factors that were not, and could not, be included in the data. For instance, income levels, first generation student status, housing arrangements, or participation in athletics or student support programs could all have an impact on graduation rates, yet those variables are not tracked through the Registrar's Office and could not be considered. Additionally, grade point average, specific racial or ethnic identification, and gender, which are tracked through the Registrar's Office, could not be included in order to protect student information under laws such as the Family Educational Rights and Privacy Act (FERPA). This limitation could unfortunately not be mitigated, as the release of data is guided by laws and policies that are outside the authority of the researcher.

A fourth limitation is that the variable that determined who was included in the dataset, self-identification of race or ethnicity, brings with it particular issues that need to be understood. One of the ramifications of using a variable that is based on self-identification is that there is no control for ensuring the accuracy and honesty of a response. Students could easily mark boxes they do not actually identify with, as there is no way to check for accuracy. This cannot be corrected; however, this variable is frequently used in educational research and should not have a substantial impact on the outcome of the study. The second consideration of this identity marker is the nebulous definitions of race and ethnicity, as well as the social construction of those terms. Because people are complex and do not always fit neatly into the "boxes" provided, the

race/ethnicity variable must be loosely interpreted as an identification made by a person at a particular time in their life, with a potentially incomplete or changing understanding of the concept and how it applies to them. However, because this particular research focuses on Ethnic Studies courses in relation to people of color, this variable is actually ideal, since it allows the inclusion of only those students who perceive themselves to be people of color. Also in relation to the classification of all students in the study as students of color, without the ability to disaggregate the data, differences between and within groups remain unknown. For instance, Asian American students include a wide range of students, including those descended from Samoa, India, Japan, and Hawaii. Nationwide, Indian Americans and Japanese Americans have extremely high rates of educational attainment, whereas many Pacific Islanders, such as Samoans and Hawaiians, have low rates (CARE, 2011). When all other students of color are also added to the mix, there is a lot of nuance that is lost. The researcher originally requested further identity information, however in light of the need to protect student information by ensuring that no cells in the data set had less than 10 students in them, this request was denied. The researcher believes that although disappointing, this lack of information does not compromise the integrity of the study.

One other issue with the way the data were received is that because all students who entered in 1999 or later and graduated (or did not graduate) by 2014 are grouped together, any changes in graduation rates over time are masked. Because there is no way of knowing when during that time period the student attended Oregon State University, it is not possible to compare graduation rates with the average for that time period. Overall six-year graduation rates have hovered around 60% for entering cohorts from 2000 to 2007 (Office of Institutional Research, n.d.), so it is possible that this would not make a large difference. However,

graduation rates vary significantly more for students of color, with Black students' six-year graduation rates as low as 33% and as high as 50% for entering cohorts between 2000 and 2007 (Office of Institutional Research, n.d.), although that variance is at least partially explained due to lower numbers of students. Consequently, it is possible that institutional changes have led to higher graduation rates for students of color in later cohorts, and this situation could not be fully considered for this research.

Implications for Future Research

Due to the myriad factors that could not be considered in this research, it is recommended that others create models that are more complex in order to further test this association. Further tests should explore other institutions, to see if the association holds for all schools or only some; various types of courses, to see if these results are unique to Ethnic Studies courses; and additional variables, to see if this association still appears significant. Another option could be looking at specific courses or specific instructors within Ethnic Studies to see if there are any patterns that might help make additional meaning of the data. If possible, further research should disaggregate students of color to specific ethnic background, as well as include other relevant information such as income and generation status. Future researchers could also include both qualitative and quantitative data in order to ask students if they feel that their academic success has any relation to their Ethnic Studies courses. Due to the interesting findings in relation to the number of Ethnic Studies courses taken as well as time-to-degree, future studies could also further delve into these variables to see if the same patterns are present in other locations, and if so, try to get a better idea of why.

In addition to further studies that attempt to better understand the association between Ethnic Studies and student success or graduation, it is recommended that researchers continue to

study Ethnic Studies programs. These studies could gather further information on what, specifically, within Ethnic Studies has led to the benefits that have been found. This information could potentially inform other policy and practice within areas such as student support services and student affairs.

Conclusions

This study found a statistically significant association between students of color completing Ethnic Studies courses and graduating from college. The most important contributors to that association included taking zero Ethnic Studies courses, one Ethnic Studies course, not graduating, and graduating in more than four years. Although this study cannot show any causal relationships, findings did provide additional support for the possibility that Ethnic Studies courses encourage one form of student success, college graduation, for students of color. These results, in addition to previous research on how Ethnic Studies affects students, demonstrate the importance of offering and promoting Ethnic Studies courses and continuing to explore the relationships between these courses and student success.

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