

AN ABSTRACT OF THE DISSERTATION OF

Kristopher Michael Elliott for the degree of Doctor of Philosophy in Science Education presented on July 11, 2014

Title: Examining the Latino Experience in California Agricultural Education: A Parallel Mixed Methods Multiple Case Study

Abstract approved: _____

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Latino students are among the fastest growing demographic groups in the nation, particularly in California, Texas, Florida, and New York. Within California in 2014, over 70,000 students are involved in Agricultural Education programs, and Latino students now account for over 50% of the total enrollment – and the percentage of Hispanics in California Agricultural Education mirrors the total percentage of Hispanic students in California secondary education. Less than ten years ago, Hispanic enrollment in Agricultural Education lagged behind the overall state percentage of Hispanic secondary students. As a new majority, little is known about Hispanic students’ experiences in Agricultural Education. To what degree are they motivated to engage? Is Agricultural Education a positive experience?

This parallel mixed methods multiple case study examined four agriculture programs in California’s diverse central valley. Students were administered a Self-Determination Theory questionnaire to determine their level perceived competence, intrinsic motivation, identified regulation, external regulation, and amotivation. Results

from each program were analyzed to determine the difference in motivation between Hispanic and non-Hispanic students. Moreover, focus groups consisting of Latino students were conducted at each of the four programs to help describe their experiences in Agricultural Education.

Student response rates for the motivation questionnaire varied by school, ranging from 23.90% to 47.64%. The results were mixed. One program showed statistically significant differences in motivation between Hispanic and non-Hispanic students for each of the five scales, with non-Hispanics showing higher levels of motivation. Effect sizes ranged from ($d = .31$) to ($d = .50$). Moreover, in all four programs, non-Hispanic students tended to indicate their intention to pursue agriculturally-related careers much more frequently than Hispanics students. The focus group discussion helped explain some of these findings. Students reported benefits to involvement in their agriculture program, but had to overcome several challenges. Some students dealt with inaccurate perceptions of the agriculture program, stereotypes negatively associating their ethnicity with agriculture, acts of microaggression, and structural inequalities that existed between rural and non-rural students in one of the programs. An operational definition is offered to help categorize the privilege some rural students have over non-rural students.

Despite these challenges, students seemed to persist and remain involved in their agriculture program because the benefits appeared to outweigh the challenges. *Dynamic diversity* as defined by Garces and Jayakumar (2014), appeared to be taking hold in each of the schools in the study as more Latino students continue to enroll in Agricultural Education.

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Examining the Latino Experience in California Agricultural Education: A Parallel Mixed
Methods Multiple Case Study

by
Kristopher Michael Elliott

A DISSERTATION

submitted to

Oregon State University

in partial fulfillment of
the requirements for the
degree of

Doctor of Philosophy

Presented July 11, 2014
Commencement June 2015

Doctor of Philosophy dissertation of Kristopher Michael Elliott presented on July 11, 2014.

APPROVED:

Major Professor, representing Science Education

Dean of the College of Education

Dean of the Graduate School

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

Kristopher Michael Elliott, Author

ACKNOWLEDGEMENTS

I would like to sincerely thank my family, friends, loved ones, cohort, and colleagues for their encouragement, support, and assistance throughout this process. I am who I am because of the impact you all have made on me. Thank you to my professors and instructors for pushing me and inspiring me to dig deeper. To my department, thank you for being the greatest group of people I have ever had the chance to work with. To all of my students – past, present, and future, thank you for reminding me learning never ends – you have all inspired me to become better. To my advisor, Dr. Lambert, thank you for setting high standards and holding me accountable; I hope I will make you proud. Finally, to Dr. Thompson, who took a chance on me a few years ago, challenged me, supported me, and mentored me into the educator I am today.

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CHAPTER 1: INTRODUCTION

Introduction and Overview

There is no doubt the United States continues to become more diverse. According to the United States Census, the U.S. population grew by over 27 million people between 2000 and 2010, reaching 308.7 million people. Most of this growth, however, was of non-White citizens who identified as either Latino or Hispanic. In fact, Hispanics accounted for 16% of the U.S. population in 2010, growing by 43% since the 2000 census. This growth accounted for more than half of the total U.S. population growth between 2000 and 2010 (U.S. Census, 2011). Since 1970, the Hispanic population has grown six-fold. Figure 1 illustrates this dramatic growth. It should be noted that the term Hispanic is recognized by the U.S. Census bureau as an ethnicity, not a race – people of Hispanic origin may be from any race. Though the Census has made this determination, many Census respondents self-identified their race as Latino, Puerto Rican, or Mexican.

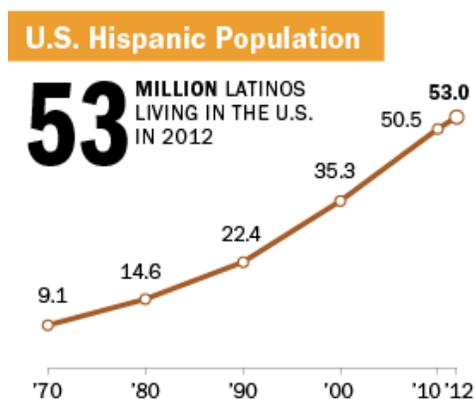


Figure 1. U.S. Hispanic Population Trends. Adapted from Brown, “The U.S. Hispanic population has increased sixfold since 1970,” by A. Brown, 2014, Retrieved from <http://www.pewresearch.org/fact-tank/2014/02/26/the-u-s-hispanic-population-has-increased-sixfold-since-1970/>

When addressing inequities in public education in the United States, Latinos continue to be a demographic group that requires our immediate attention if we are to ensure a sound education for all of our nation's students. Not only are Latinos the fastest growing demographic group in our country, Solorzano, Villalpando, and Oseguera (2005) found Latinos were the group least likely to succeed in high school. Their study indicated only 10 in 100 Latino students would graduate from college, with just over 50% graduating from high school. Moreover, the gap between Hispanic and White students' standardized test scores continues to be of concern as accountability in schools remains a hot topic in the national discourse (Good, Aronson, & Inzlicht, 2003). We also know that some teachers have lower expectations of their Latino students than they do of other student groups (Núñez, 2014).

It is not surprising that Latinos remain an area of concern in our nation's schools when so many barriers face them outside of public education. Beginning with the general impression of the public about Latinos helps put this issue in perspective. According to Chavez (2008), 30% of non-Latinos believe the majority of Latinos in the United States are illegal, while in actuality, 64% of Latinos are legal/U.S. born citizens. This inaccurate perception of Latinos by such a large portion of the non-Latino population, what Chavez terms the *Latino Threat Narrative*, helps perpetuate existing structural discrimination practices and mistrust as many associate the portrayal of illegal immigrants in the media with *all* Latinos.

Citizens of the United States and their elected officials have had a history of programs that impact Latinos. Unfortunately, many of these policies are not based on anything more than the current political climate. Anti-immigration laws, anti-bilingual

education laws, and the Patriot Act, are just some of the examples that could explain why Latinos are perceived to experience the most discrimination in the U.S. among all minority groups (Pew Hispanic Center, 2012). Not only do some of these policies unfairly impact Latinos, there is a history of ebbs and flows with regard to how the nation deals with Latinos. When a labor shortage existed, particularly in agriculture, legislation like the Bracero program were embraced as a way to address economic concerns; however, when the economy struggled and jobs were scarce, the climate quickly changed to one of nativism (Núñez, 2014).

With so much negativity the media, political climate and education, many Latino students begin to internalize and believe these stereotypes. Moreover, these students may also begin to adopt the beliefs of the dominant culture, accepting the view that all have an equal shot at being successful and success is in no way based on systematic and structural systems that lead to inequality (Núñez, 2014).

Latinos in California

California remains an interesting case when examining the Latino experience. As of the 2010 census, California had the largest minority population with over 22 million residents, followed by Texas with just over 13 million (U.S. Census, 2011). Moreover, The Golden State is home to the largest Latino population in the United States, with just over 38% of the state's population identifying as Latino as compared to just under 17% for the whole nation. In fact, this year Latinos will be the largest demographic sub group in California (U.S. Census, 2012) and the Pew Research Center found the ten counties with ten largest Hispanic population accounted for 22% of the national Hispanic population growth – five of these counties are located in California (Brown, 2014). While

this data shows us the dramatic shifts taking place, we do not know much about the growing Latino population in our K-12 system, specifically, their experience in Agricultural Education.

Agricultural Education and Diversity

Originating with the Smith Hughes Act in 1917, Vocational Agriculture, now referred to as Agricultural Education, began as a way to help educate young males who would go back to work on the farm. An additional component to the program, the Future Farmers of America (FFA), was chartered in 1928. The organization added leadership opportunities, an awards program, and opportunities for students to compete and apply what they learned in class, outside of class (National FFA Org., 2014a). Now known as the National FFA Organization and consisting of males and females from many cultures, the organization involves nearly 580,000 members nationwide in leadership and career based activities. Students enrolled in agriculture courses in high school are automatically members or have the option to join, depending on their state (National FFA Org., 2014b).

Diversity has been an important issue in Agricultural Education for quite some time. Not long ago, the FFA was an organization for white male students. A similar organization known as the New Farmers of America existed for African American students. These two organizations merged in 1965, though the term *merged* is used quite loosely. Many of the NFA's traditions, ceremonies, and emblems were lost as those of the FFA were adopted for both groups in addition to keeping the *Future Farmers of America* name despite the fact the NFA was thriving. This took place despite NFA having more members when the two organizations joined (Wakefield & Talbert, 2003). The FFA's history in terms of women has also been one of exclusivity. It was not until

1969 when women were allowed to join, and this decision was unpopular initially (National FFA Org., 2014a).

The agriculture teacher education field has also seen challenges in terms of diversity, which mirrored the challenges with diversity of teachers of secondary Agricultural Education. Initially, women were underrepresented in both teacher education and school-based Agricultural Education, though today we see a vast improvement in diversity in our profession by gender (Foster, Fletcher, & Hernandez-Gantes, 2003). We do, however, in all aspects of our profession, face challenges in terms of racial and ethnic diversity (Bowen, 2001).

Agricultural Education in California

California is home to the second largest FFA membership in the nation, following Texas. As of 2011-2012, California had 305 chapters with combined total of over 70,000 students enrolled in Agricultural Education, all of which are automatically FFA members due to the state's affiliation membership program. Similar to the state's high percentage of Hispanics enrolled in the public K-12 system, Agriculture Education nearly mirrors the state's total percentage of Hispanics in secondary schools (CBEDS, 2014; CDE, 2014). Beyond its large percentage of Hispanic students in agriculture, the state is a unique setting for this study due to the affiliation membership program and the state's large data collection system. Affiliation membership removes the option of joining FFA or not, so the study can focus on students' decisions to participate in the overall agriculture program, taking it or leaving it in its entirety (National FFA Org., 2014b). Affiliation also helps remove confounding variable associated with FFA involvement, as every secondary agriculture student in the state is eligible to participate in FFA events.

Statement of the Problem

Given the past history of diversity in Agricultural Education and the growing diversity of our nation, it behooves us to investigate the experience of one of the fastest growing demographic groups in Agricultural Education and our nation. Can we learn from places where the percentage of Latinos enrolled in Agricultural Education accurately reflects the Latino population at large? Can we utilize this knowledge in places where there are underrepresented numbers of Latinos enrolled? Perhaps we can, but we must first begin by examining programs where Hispanic enrollment mirrors the school enrollment where it is situated. We must examine the statistical data collected and tell the story of those involved in these programs if we are to fully understand why Hispanic students are finally enrolling in Agricultural Education at rates proportionate to their schools. We know very little about these recent trends, and this research will help us begin a timely and comprehensive line of research to address the experiences of our Hispanic students.

Purpose of the Study

The purpose of this study is twofold. First, this study will provide a quantitative analysis of Latino students in Agricultural Education in California at the state level as well as providing more detailed data in four selected cases. Secondly, the study will examine the experience of Latino students in Agricultural Education in their own words. As a mixed methods study, I will attempt to provide meaning to the quantitative data qualitatively. Additionally, this study will help inform further investigation to the Latino experience in other programs in California as well as across the nation. Finally, though Latino students are the population of interest in this research, I hope the results from this

study will help inform studies of other historically underrepresented groups in Agricultural Education, in California and beyond.

Objectives of the Study

The objectives of the research study were to:

1. Describe the demographics of Agricultural Education students in CA over last ten years.
2. Describe the demographics of Agricultural Education students in California by FFA Region.
3. Describe the demographics of California students over the last ten years.
4. Describe the demographics of Agricultural Education teachers in California over the last ten years.
5. Describe the demographics of California secondary teachers over the last ten years.
6. Describe the demographic trends of each agriculture program in the study.
7. Describe the demographic trends of each high school in the study.
8. Describe the demographics of the teachers in each agriculture program in the study.
9. Describe the Perceived Competence and Situated Motivation for students in each of the four agriculture programs in the study.
10. Determine the post high school plans of students by ethnicity at each of the four agriculture programs in the study.
11. Describe the lived experience of Hispanic students in Agricultural Education.

Summary of the Theoretical Framework

This mixed methods study approaches the Latino experience in Agricultural Education through Self-Determination Theory (SDT) and Latino Critical Theory (LatCrit), each with its own set of strengths and weaknesses. Given these theories are very different, their ability to stand side by side in a single study could be questioned. From a pragmatist point of view, the researcher must investigate the phenomenon of interest using a variety of methods that best meet the need of the study, as a pragmatist is not locked into any one system of philosophy. Typically, pragmatism involves multiple methods of data collection and focuses on the practical application of the results (Creswell, 2013). Despite a pragmatist approach, in order to collect and analyze the data from this study, I have utilized SDT and LatCrit to help guide this investigation.

Beginning with roots in Critical Race Theory, LatCrit specifically addresses the issue of intersectionality, or interaction of factors such as ethnicity, immigration, language, and citizen status, among others (Huber, 2009). In investigating the experience of Latino students in Agricultural Education, it is important to capture their story in a setting that allows for a variety of characteristics to shape their story. LatCrit will help cast a wide lens in the qualitative portion of this study, with the goal of capturing as many factors that connect to students' experiences as possible, as the agriculture program does not happen in isolation.

SDT examines motivation in terms of our natural or intrinsic reasons for behaving in a certain way (Deci & Ryan, 1985). SDT theorizes our behavior is based on three factors: *autonomy*, or sense of self-choice; *competence*, or our desire to master or be competent at a given task; and *relatedness*, or how we seek to interact or connect with

others. Moreover, Deci and Ryan (1985) break motivation into intrinsic, doing something for its own sake, and extrinsic, doing something due to an external factor or force.

Relevant to this study, two micro-theories help add depth to SDT.

Organismic Integration Theory (OIT) helps explain the details to how various extrinsic forms of motivation are regulated (Deci & Ryan, 2000). Extrinsically motivated activities can be internalized or integrated onto ones' self. For example, one might set a goal with an extrinsic reward in mind, though the steps to achieving the goal may not be done for their own enjoyment. The other extreme of extrinsic behavior would be doing something to avoid a direct consequence of not doing so, such as wearing one's seat belt to avoid a ticket or being killed in an auto accident – one does not generally wear a seatbelt because he or she enjoys doing so.

Intrinsic behavior can be explained by the Cognitive Evaluation Theory (CET) (Ryan & Deci, 2000). CET emphasizes the aspect of autonomy and competence, relevant to an educational setting, with regard to one's inherent desire to do something for its own sake – or in other words, doing something purely out of enjoyment.

The combination of SDT and its micro theories and the richness of storytelling inherent in LatCrit will help facilitate examining the Latino experience in Agricultural Education from two unique perspectives. I believe both perspectives will be valuable in developing a thorough investigation and analysis.

Terms and Definitions

Ag

Agriculture is often abbreviated as ag.

Agricultural Education (Ag Ed)

Based on a three-circle model, Agricultural Education involves classroom instruction (Agricultural Science for example), FFA membership and activities, and SAE (National FFA Org., 2014d).

Ag Mechanics (Ag Mech)

A course offered in many agriculture programs focusing on mechanical skills, welding, electrical work, and other related topics.

Hispanic and Latino

It is important to note the term *Hispanic* is used by the federal government (United States Census Bureau, 2011) as well as the State of California to include several groups. Originally coined by the U.S. Office of Management and Budget, the term *Hispanic* originally included all people of Hispanic origin, though the use of *Latino* is often used. Traditionally, *Latino* is considered more accurate, as most of the Hispanic population in the U.S. actually originated in Latin America (Oboler, 1995). Consequently, many who are classified as Hispanic may identify themselves as Chicana/Chicano, Latina/Latino, Mexican American, or other various classifications. Unfortunately, the methods of collecting ethnicity data are currently limited in scope, and therefore, I use the terms *Hispanic* and *Latino* interchangeably to encompass all of these individuals, mirroring the current government terminology when referring to specific data – clearly recognizing the limitations of such a classification.

Intersectionality

Intersectionality refers to the interaction of several factors in critical and feminist theory, including race, ethnicity, gender, religion, socioeconomic status, sexual orientation, and others (Hancock, 2007).

Introjection

In terms of Self-Determination Theory, introjection involves one internalizing an action, but not necessarily owning it or fully accepting it (Deci & Ryan, 1985).

Motivation

In this study, motivation is in reference to Deci and Ryan's (1985) Self-Determination Theory, which theorizes one's motivation or reasons for engaging in an activity.

National FFA Organization (FFA)

Formerly known as the Future Farmers of America, the FFA is a national organization associated within Agricultural Education, providing opportunities for secondary agriculture students to learn leadership skills, apply classroom learning through competitive events, and obtain recognition and awards (National FFA Organization, 2014a).

Supervised Agricultural Experience (SAE)

SAE is a type of experiential learning, taking place outside of the classroom, where students apply content knowledge in real world applications. These experiences can range from science projects, to raising animals, to job placement. Students can receive SAE awards including *proficiency* and *star awards* (National FFA Organization, 2014c).

Assumptions

As all of the data in phase one of this study are collected by programs and compiled by the California Department of Education's Agricultural Education Unit, I make the assumption the data are reliable, though there is a possibility of error in the agriculture teachers' self-reporting. Given the large amount of statewide data and number of students, I assume any reporting errors are minimal and do not significantly affect the overall findings.

I have made the assumption that as a white male, my inherent biases and privilege have not negatively influenced or impacted the study. While this cannot be ignored, I have made every attempt to remain aware of this potential limitation.

I have made the assumption the focus group participants were truthful and forthcoming, and that the reassurance of their confidentiality helped them share more freely. Furthermore, I assume their selection by the agriculture teachers at each program followed the protocol in order to find a representative sample.

I have made the assumption agriculture teachers at each program conducted the quantitative questionnaire as outlined in the protocol and that students taking the questionnaire understood the directions.

I have made the assumption omitting students who opted out of the quantitative questionnaire or who were absent on the day it was administered will not have a statistically significant effect on the data collected.

I have made the assumption a mixed methods approach will yield informative data to the field of Agricultural Education and beyond, and that the findings will help

inform the practice of the National FFA Organization, secondary teachers and teacher educators.

I have made the assumption the trends in Latino population growth will continue and the information learned from this study will help improve program in states where their enrollment in secondary Agricultural Education is on the increase or where the enrollment is not proportional to the state's demographics.

Furthermore, I have made the assumption California as well as the four selected cases will yield useful data to other programs within the state and across the nation.

Limitations

California is a unique state with unique characteristics that may not exist elsewhere. While it remains an interesting site to study the Latino experience in Agricultural Education, the results from this study should be applied elsewhere with great caution. Moreover, the qualitative and quantitative data from the second phase of this study are specific to the cases studied. Researchers should digest this data with caution, as the specifics and characteristics of the cases and students are unique to the context in which they were situated.

Both the quantitative and qualitative phase of this study will be conducted at a fixed point in time, which may give me limited ability to describe the full Latino experience. Future longitudinal studies may help add depth and detail to this study.

As with other self-reporting instruments, the truthfulness of each participant is assumed and could potentially be a limitation as compared to a direct observation measurement of each student's motivation. Moreover, the focus group format in phase two could inhibit some truthfulness or transparency by the participants.

As this ethnicity has not been studied to a large extent in Agricultural Education, I approach this study with a fairly broad net. Future studies may have the ability to delve deeper into the Latino experience as the body of knowledge about this important demographic continues to grow.

Access to high school students can be difficult to obtain from the parents, teachers, schools, and students themselves. It is possible that some students will be missed due to opting out, being absent during the survey, or failing to return consent documentation. Moreover, the Institutional Review Board (IRB) process may limit the scope and depth of questions that may be addressed during the study. Future studies will help build upon this study and limitations will be addressed through replication.

To protect the identity of students, pseudonyms will be used; however, the details omitted to protect participants' identities may make replication by other researchers more difficult. I have made every attempt to provide as much detail as possible in the methods section to overcome this limitation.

It can be challenging for one researcher to collect and analyze the data from such a large research project without the benefit of multiple researchers. As this is a dissertation, this limitation could only be addressed through the careful observation and collaboration with my advisor.

Delimitations

This study will not directly address the issue of socioeconomic status, which may be an important factor in the Latino experience in Agricultural Education. Specifically, the quantitative portion of the study will not ask students to share their family's income level, though the open-ended focus group questions may provide an opportunity for

students to indicate any challenges or barriers to being involved in their agriculture program related to finances. I will not prompt or lead students to share their financial status, as this information could be sensitive in a focus group setting and may not be accurate enough to include in the quantitative questionnaire. Moreover, each questionnaire is anonymous, thus, there is no way to connect student responses with the available school socioeconomic data.

I have chosen to describe the Latino experience in Agricultural Education through the quantitative data collected and through their own words, captured through the focus groups. While it could be argued the agriculture teachers might provide additional perspective, I have chosen to focus this study on the actual students. Further studies could examine the teachers' perceptions.

Though there may be a benefit in future studies to connecting student motivation to achievement, this study does not attempt to do so. By making the connection of motivation to persistence in the agriculture program, this study first seeks understanding about the role motivation might play in students' decision to stay enrolled in an agriculture program or not. The results may inform further investigation including how motivation impacts students' achievement. Moreover, achievement in Agricultural Education can be a rather large concept including grade point average, obtaining FFA degrees, proficiency awards, and FFA leadership positions.

While this research may shed light on students' motivation in the agriculture programs in the study, I make no attempt to explain. For example, if the questionnaire reveals a high level of motivation, it will lack the ability to pinpoint the cause. More intrusive means are available in future research that may help address the causes, though

it is possible the qualitative portion of the study may add detail to some of the quantitative findings.

Finally, I have chosen not to interview parents of Latino students. This does not discount their perspective in any way. In fact, their experience with the agriculture program may provide valuable data in future studies; however, I have chosen this study as a baseline which will hopefully inform targeted investigations including parents, communities, and other external factors.

Significance of the Study

Understanding the experience of Latinos in Agricultural Education has significance for many stakeholders in our profession. I begin by outlining the direct significance to those involved in this study. It is unlikely the current students in the case study schools will experience significant changes from this study in the short term; however, the schools, teachers, and student leadership may be able to use the findings to facilitate more meaningful experiences for Latinos in their programs. Moreover, existing practices that are working can be strengthened, while barriers, if any emerge, can be accurately addressed.

While the schools in the study may directly apply the findings, other schools and agriculture teachers within the state may be able to extrapolate the data to fit their own needs. Similarly, state leaders may use the information to inform policies that might help improve access to Agricultural Education for more students, particularly Latinos. While California is unique, the data may also help inform practice in other states with an emerging Latino population.

Given FFA membership is optional with enrollment in an agriculture class in some states, teachers and leaders may use the information to help recruit and customize their FFA chapter events to meet the needs of more diverse students. The National FFA Organization may also find this study useful in their efforts to increase diversity nationwide.

Finally, this study may help inform similar studies by other researchers in different and/or similar contexts. Beyond this study, more research should be carried out in this area, and the findings from this research may help narrow the focus of future investigations. Moreover, this study may help teacher education programs better prepare their future teachers for experiences in more diverse agriculture programs, particularly programs that operate in high schools with a large Latino population.

CHAPTER 2: REVIEW OF LITERATURE

Overview of Chapter 2

The foundation of this study is a critical point of view, specifically Latino Critical Theory (LatCrit). Approaching from a pragmatic point of view, this chapter will discuss the negotiation between Critical Theory and Self-Determination Theory, and application of both lenses to approach the problem and research objectives. The chapter outlines the application of Self-Determination Theory as a form of measuring engagement and motivation, whereas the LatCrit Theory will emphasize the intersectionality of the issues facing Latino students in education. The chapter concludes with an examination of related studies, both in terms of Critical Theory and motivation, including studies specific to the Agricultural Education field.

Purpose of the Study

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8. Describe the demographics of the teachers in each agriculture program in the study.
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10. Determine the post high school plans of students by ethnicity at each of the four agriculture programs in the study.
11. Describe the lived experience of Hispanic students in Agricultural Education.

Theoretical Framework

Taking a Pragmatic Stance

Mixed-methods studies are often approached from a pragmatist perspective. According to John Creswell (2013), pragmatists are free to choose the methods that best meet the needs of the study. They are not locked into a single philosophy; rather, to

pragmatists, reality is what is useful. Researchers taking a pragmatic stance approach their research question from both a deductive and inductive perspective. Essentially, knowledge is reflective of both the researchers' and the participants' views.

My passion for establishing an environment where every student feels welcome and has the opportunity to be successful in Agricultural Education led me to this research. Not being from the same ethnic background as my participants, I have carefully considered the benefits and potential challenges, as debate continues about a researcher studying a culture other than their own, particularly a white researcher studying people of color (Zinn, 1979). Given my passion for this research, I considered taking a transformative stance, one where my bias for equality in Agricultural Education would be embraced in my research rather than completely bracketed. According to Donna Mertens (2010), critical studies stem from a transformative paradigm, one where there are multiple ways of knowing. Given the history of Agricultural Education, there may be ways of knowing that are privileged, structures that have been established and maintained by the dominant culture. While a transformative study would help tell the story of Latino students in Agricultural Education, it typically would also include the subjects as participants in the research (Mertens, 2010). Given that the target population will be high school students, I decided a direct participation model would be problematic, both in terms of gaining school and parental support and IRB approval.

In my view, part of understanding Latino students' experience in Agricultural Education would include an investigation to their motivation for being involved. In order to ask meaningful questions about the students' involvement, I sought to find a theoretical framework that would help guide my questioning. Self-Determination Theory

(SDT) (Deci & Ryan, 1985) emerged as a viable framework to seeking an understanding of students' motivation. Additionally, several validated questionnaires and instruments existed, fully described in the methods section, that I could match to the objectives of this study. In the preceding sections, I have provided a review of related studies that helped guide my selection of Self-Determination Theory, though I entered the study with a critical lens, as explained below. The pragmatic nature of my mixed methods study helped me navigate the sometimes tumultuous intersection of quantitative and qualitative approaches.

Given my attention to Latino students, I also sought a theoretical framework that could approach the qualitative portion of my study with a wider net, hoping to share students' actual experiences in their own words. I began with an investigation into Critical Theory, specifically Critical Race Theory. My review of related theories quickly led me to Latino Critical Theory (LatCrit), which specifically addressed the Latino experience with an emphasis on the intersectionality of issues facing Latinos. This theory would fit well with sharing their story and would complement the motivation data that SDT would help frame.

Given these two very different theoretical approaches, I reaffirm my pragmatic stance. Both of these frameworks will help bring to light the experiences of the largest student demographic in California. Rather than dispute or debate their differences, I choose to approach this study utilizing the strengths of both frameworks. In the text that follows, I provide a more thorough analysis of each theory and its application to this study.

Using a Critical Lens

Critical Race Theory (CRT) has evolved over the last three decades, particularly in response to emerging neoliberalism views, which approached race with a *colorblindness* philosophy. At its core, CRT serves as a lens that affords us the opportunity to examine the oppression and racism experienced by people of color. CRT evolved from critical legal studies and civil rights movements, though it approached each of these from a different perspective (Delgado & Stefancic, 2001). As the dominant culture currently makes, enforces, and enjoys the privileges of the current legal and political climate, CRT approaches oppression by challenging current legal theory, where people of color are disenfranchised and the people in power benefit. For example, many states have outlawed affirmative action in college admission and job hiring protocol, which tends to negatively affect people of color. This is typically approached in the neoliberal tradition of colorblindness or fairness for everyone regardless of race or ethnicity (Farber, 1994; Yosso, Parker, Solorzano, & Lynn, 2004).

While this sounds fair and equitable on the surface, similar policies exist that actually privilege white students with what has been outlawed for people of color. Many universities still give admission preference or priority points to legacy students, and given the fact that a vast majority of these students are white, (due to institutionalized racism), we actually continue the cycle of oppression through what we claim is a color blind policy (Espenshade, Chung, & Walling, 2004). When examining issues like these under the CRT lens, it becomes clearly evident that many of the current laws and policies in this nation are situated against people of color at worst and designed to maintain the status quo of white privilege at best.

CRT addresses the issues of race, by critically examining law, politics and policy but upholding the general tenant that law is required to protect the rights and equality of all races. In other words, CRT examines the effect of current laws on people of color and advocates through social justice for laws that protect all people fairly. Critical examination of the law or *deconstructionism*, is balanced with a social justice agenda designed to provide protection under the law, referred to as *reconstructionism* (Bell, 1995). Moreover, CRT investigates institutional racism, or the policies or structures that exist which lead to unequal access to opportunities as defined by one's race (Feagin, Feagin, & Feagin, 1986). More simply, institutional racism is recognizing that our current climate privileges some over others in terms of race, and these structures tend to continue in perpetuity unless acted upon. Unfortunately, those oppressed by the current structure often begin to believe they are lesser class citizens and fail to advocate for changes for their own good. Concurrently, many believe we have reached equality in a modern colorblind society. CRT seeks to dispel this myth through scholarly work, stories and social justice (Pyke, 2010).

In education, inequalities continue to be pervasive, and many question how this can be the case given so much emphasis on educating all children. Ladson-Billings and Tate (2006) argue that the inequalities “are a logical and predictable result of a radicalized society in which discussions of race and racism continue to be muted and marginalized” (p. 11). The authors go on to propose three central propositions to inequality in schools:

- (1) Race continues to be a significant factor in determining inequality in the U.S.,
- (2) U.S. Society is based on property rights, and (3) the intersection of race and

property creates an analytic tool through which we can understand social (and, consequently, school) inequality (p. 12).

Essentially, the authors outline the basic arguments inherent in the CRT framework in an educational setting. However, they make the claim that, unlike class and gender, race continues to remain untheorized in terms of educational inequality. They argue that other authors and scholars have focused more on the social aspect of race rather than specific educational implications. With regard to property, today's students experience this concept through the necessity of materials, technology, and resources that are inexplicably tied to property or class. Racism is endemic in American life and our schools, and to combat it, we must challenge any claims of neutrality, colorblindness, or objectivity, as CRT theorists believe, these do not exist (Ladson-Billings & Tate, 2006).

Latino Critical Theory

Within the larger Critical Theory framework, Latino/a Critical Race Theory (LatCrit) attempts to more precisely address the issues of Latinas and Latinos. It should be noted that the terms Latina/o are not entirely inclusive and do not represent all people of Latin and Hispanic descent. Hispanics, Chicanas, Chicanos, and more specific nationalities including Colombian, Venezuelan and Mexican are often used to describe one's self (Oboler, 1998). What is important to acknowledge here is that there is no attempt to box such a large and diverse group of people together using a single term; rather, people have their own right to choose how they wish to be identified. As mentioned previously in chapter one, I choose to use *Hispanic* to include all people that LatCrit may apply to. While this may not be the most appropriate term, it is the one used in this study when referring to government ethnicity classifications and data.

LatCrit focuses on the *intersection* (Crenshaw, 1991) of several issues affecting Latinos, that go beyond CRT including language, sexism, immigration, ethnicity, culture, generation status, identity, phenotype, class and sexuality (Villalpando, 2004).

Villalpando argues that the oppression of Latinos cannot easily be attributed to one of these characteristics. It is the intersection of each of these characteristics, one that goes beyond a summative or cumulative effect, which paints the full picture. LatCrit goes beyond the traditional race and racism issues facing people of color and looks at many different characteristics and their interaction with each other.

According to Soloranzo and Delgado Bernal (2001), “LatCrit is concerned with a progressive sense of a coalitional Latina/Latino pan-ethnicity and addresses issues often ignored by critical race theorists” (p. 311). Moreover, the authors argue

Class and racial oppression cannot account for oppression based on gender, language, or immigration status. It is at this intersection of race, class, gender, language, and immigration status that some answers to theoretical, conceptual, and methodological questions related to Chicana and Chicano student resistance might be found (p. 313).

LatCrit began officially in Puerto Rico as part of the Hispanic National Bar Association Law Professor’s Meeting in 1995. The framework has since evolved into annual meetings and several initiatives. The group originally consisted of legal practitioners and theorists but has grown to include other scholars and those who support the cause, most of which already identified themselves as belonging to the CRT camp (LatCrit, 2013).

LatCrit from its very inception has been self-consciously devoted to practicing CRT’s original commitments and pioneering techniques in a self-critical way. LatCrit theorists have been determined to embrace CRT’s original

antisubordination vision and employ its first-decade learning curve at this movement's point of departure...LatCrit theory has devised a conscious and critical self-conception similar though not identical to CRT's (p. 1).

Grounded in a foundation of law, LatCrit has the unique ability to unify the scholarly research of academia to the social justice application that the legal system can afford. Moreover, the structure of annual meetings, where scholars, lawyers, and supporters alike come together, provide the scaffolding in which to unify the discussion and action, leading to more potential social justice. These annual meetings also rest upon the sponsorships of legal journals, which disseminate the fruitful discussions through their publishing (LatCrit, 2013).

Similar to CRT and as outlined in the five themes presented by Solorzano and Delgado Bernal (2001), LatCrit has an overarching goal of achieving and working toward social justice (Villalpando, 2004). In education, this cause begins with the teachers who shape the future of our nation through the education of our students. How these teachers influence and inform students, in addition to how they appreciate students of color is based on their political and ideological clarity. Given the current practice in teacher education where industry and economics, curriculum, and pedagogy drive teacher training and certification, "the role and effects of teacher political and ideological orientation have not been sufficiently acknowledged as relevant to the task of teacher preparation" (Bartolomé & Balderama, 2001). Using the LatCrit lens, one can argue that educational policy and the leaders in our nation's teacher training institutions must address this component in their comprehensive programs.

LatCrit can be used to assess many aspects of political and governmental decisions affecting Latinos. In recent history, a trend affecting many Latina/o youth has

ensued, one where specialized programs, once designed to help students reach a level playing field in education, are being dismantled or outlawed. California, our most populous state and the home to over 1.1 million of Latinos, once operated one of the largest bilingual education programs in the nation (Rossell, 2003). However, under a recent wave of neoliberalism, Proposition 227 ended bilingual education in the state in 1988 (Rossell, 2003). In Arizona, recent action by the legislature banned ethnic studies in the state. Beginning in 2012 with the adoption of HB 2281, it became “illegal to teach classes designed for students of particular ethnicities or that promote ethnic solidarity over individuality” (Wanberg, 2013, p. 15).

From a privileged, white-middle class perspective, it is easy to understand why such courses would appear unnecessary, taking the stance of colorblindness. However, these courses were designed to empower students who faced and continue to face many barriers. This tendency to promote colorblindness simply maintains the current structure of oppression. Race is no longer a factor to encourage students to think critically about diversity; rather, it is ignored in the face of a normalized white American culture, one that is upheld as a symbol of opportunity (Wanberg, 2013). We have eliminated these specialized programs in the name of equality; yet expand opportunities for white students to be immersed in their bilingual programs. Since 1971, the total number of bilingual-immersion programs for English speaking students has grown from 3 to over 448 in 2011 (Center for Applied Linguistics, 2013). What we have eliminated for one oppressed group, we have expanded for others.

The issues affecting Latinos are numerous and complex (Valdivieso & Davis, 1988). Primarily, the major issues are based on economics. A large and ever growing

agricultural industry requires cheap labor, and these low paying production jobs do not tend to attract many American citizens (Lowell & Suro, 2002; Maldonado, 2009).

Economics provide a strong incentive for many Latinos to immigrate illegally to the United States to fill these jobs, many hoping for opportunity and a better life, all while helping maintain low wage agriculture jobs (Bouvier & Gardner, 1986), which in turn, help keep food prices artificially low. Similarly, certain immigration programs such as the Bracero Program allowed for non-United States citizens to come into the country for work, mainly in agriculture, though some argue the benefits versus the impact on many of the immigrants and their families (Calavita, 2010; Martin, 1994). In examining issues such as these, LatCrit moves beyond race and examines the culture of these workers and their families, how language and gender play a role, and how numerous factors must be examined in order to tell a more complete story of their experience.

Similar to the agriculture industry, LatCrit is also a useful lens for examining the Latino experience in Agricultural Education. Through the qualitative phase of this study, LatCrit will help frame the stories of the participants with an emphasis on intersectionality. All aspects of students' lives will impact their experience in Agricultural Education. From a critical perspective, LatCrit will help inform the stories and experiences of this study's participants to help us gain an understanding from their own perspectives.

Self-Determination Theory

Originally developed by Deci and Ryan (1985) as a theory on motivation, Self-Determination Theory has had a long history of framing educational research in addition to human needs, values, intrinsic motivation, development, motivation across cultures,

individual differences, and psychological well-being (Self-determination Theory, 2014). SDT approaches motivation from a situational standpoint rather than an overall standpoint. For example, we would describe a person's motivation to engage in a specific activity or course rather than his or her overall motivation. SDT describes an individual's motivation as being self-determined or non-self-determined. Self-determined motivation or intrinsic motivation is based on three conditions: 1) autonomy, 2) competence, and 3) relatedness. An individual's level of engagement in a given activity or pursuit is based on these three categories, which may also impact wellness in a given social context (Deci & Ryan, 1985).

To further explain this concept, Deci and Ryan developed a micro theory, what they referred to as Cognitive Evaluation Theory (CET). CET focuses on the aforementioned three factors and helps explain how a given social setting can either facilitate or forestall intrinsic motivation (Ryan & Deci, 2000). Moreover, CET can only be applied to activities where one has an initial interest or desire to engage.

Autonomy characterizes an individual's desire to be the agent of their own life and make their own decisions and freedom to choose their path, thus the name *Self-Determination Theory*. It is important to note that autonomous behaviors are still situated in a social environment. Deci and Ryan (1985) argue less autonomy can translate into less engagement, desire, or intrinsic motivation to engage in a task, what they refer to as amotivation.

Closely related to autonomy, competence describes one's desire to master and control the outcome of a given situation (Deci & Ryan, 1985). People tend to engage in activities they feel they can excel at or improve upon, so their perceived competence is an

important factor of motivation. Competence can be diminished without a sense of autonomy, or feeling that one has control or choice to self-determine, leading to a lack of engagement or motivation to engage (Niemiec & Ryan, 2009).

Relatedness describes one's connection to others or how they are situated in a social environment. This piece of SDT emphasizes the social aspect of the theory, as motivation does not take place in isolation. Moreover, according to Niemiec and Ryan, (2009)

SDT posits that satisfaction for the need for relatedness facilitates the process of internalization. People tend to internalize and accept as their own the values and practices of those whom they feel, or want to feel, connected, and from contexts in which they experience a sense of belonging (p. 139).

While the intrinsic motivation branch of SDT is rather clear, Deci and Ryan (1985) sought to provide further clarification to the extrinsic side of their theory. A second micro theory, Organismic Integration Theory (OIT), details the varying types of extrinsic motivation factors and examines contexts that either hinder or promote internalization and integration of a given behavior. The result is a continuum, ranging from amotivation, where the individual acts under pressure, with little perceived competence and finding little relevance in the activity. The continuum, shown in figure 2, continues toward intrinsic motivation with four regulatory stages, external regulation, introjected regulation, identified regulation, and integrated regulation; integration being the closest to intrinsic motivation. Furthermore, as one moves right toward intrinsic motivation, the motivation becomes more internalized, meaning the individual is motivated more by internal than external factors. Another important factor in the continuum is the extent to

which someone has autonomy in an activity, beginning with the choice to act or not, to the option to modify or experience the activity in their own way (Ryan & Deci, 2000).

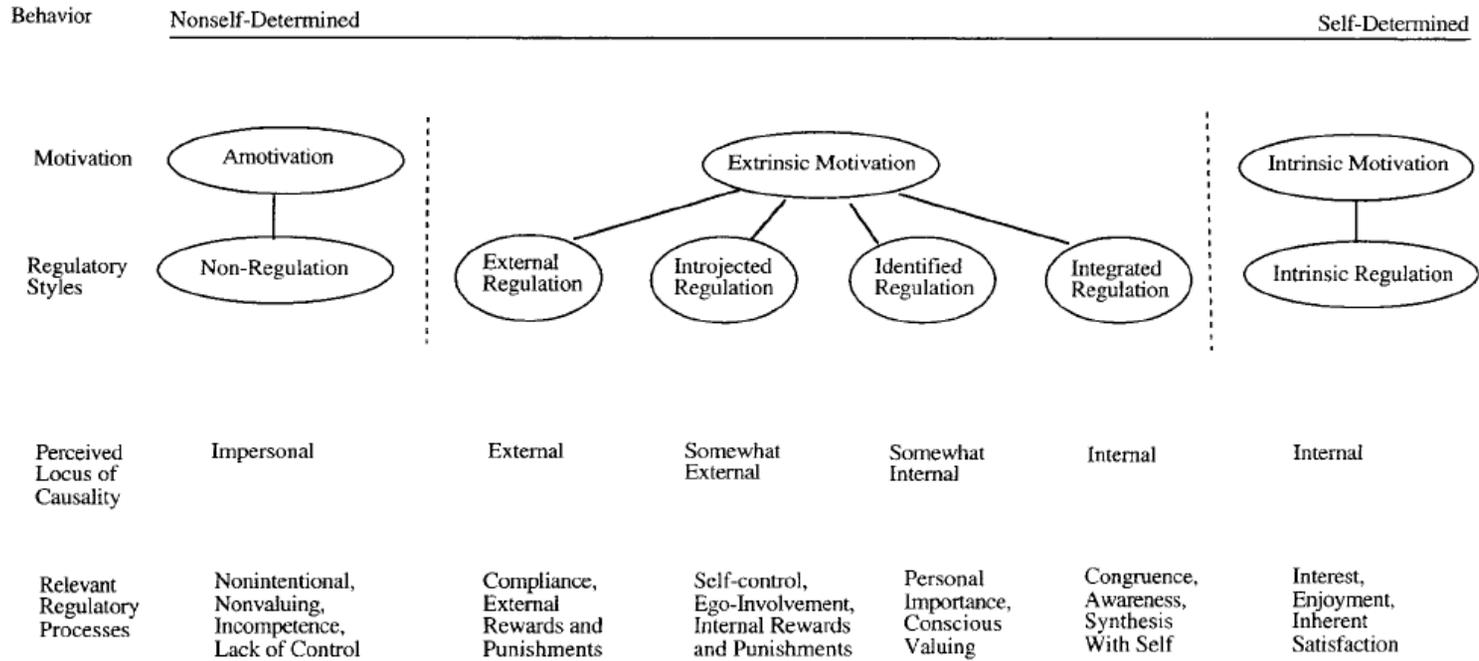


Figure 2. The self-determination continuum. Adapted from R. M. Ryan and E. L. Deci, 2000, *American Psychologist*, 55(1), p. 72.

On the far left of the figure, amotivation is described as lacking a desire or intention to act (Ryan & Deci, 2000). According to Ryan (1995), amotivation typically stems from not valuing an activity, leading one to act without intent. Moreover, Seligman, (1975) posited that amotivation was due to not anticipating a desired outcome from engaging in the activity. Bandura (1986) argued that amotivation was also due to one's not feeling competent.

To the right of amotivation are four types of extrinsic motivation, beginning with external regulation. As the least autonomous form of extrinsic regulation, external regulation describes those activities or behaviors exhibited to either satisfy an external demand or obtain a reward. This type of motivation was the original contrast to intrinsic motivation in early studies (Ryan & Deci, 2000).

Continuing right towards more self-determined behavior is introjected regulation. According to Ryan and Deci (2000), introjected regulation “involves taking in a regulation but not fully accepting it as one's own” (p. 72). Here behaviors are typically performed to avoid the negative feelings associated with guilt or anxiety. Moreover, some behaviors in this category are engaged in to improve the ego.

The next phase of extrinsic motivation is that of regulation through identification. Behaviors falling into this category typically stem from “a conscious valuing of a behavioral goal or regulation, such that the action is accepted or owned as personally important” (Ryan & Deci, 2000, p. 72). Occasionally, this form of motivation can involve engaging in an act for a perceived future benefit to one's self.

Finally, closely related to intrinsic motivation but still considered extrinsic is that of integrated regulation, which involves one fully assimilating identified regulations to the

self, where one sees congruency with his or her other values. The major difference between intrinsic forms of motivation and integrated regulation is that intrinsic motivation involves engaging in something for its own sake or enjoyment; integrated regulation involves acts engaged in for separable outcomes outside of pure enjoyment of the behavior (Ryan & Deci, 2000).

The preceding figure also outlines the perceived locus of causality for each of the categories. Beginning with non-self-determined behavior, the perceived locus of causality is impersonal, or not connected to one's self at all. Moving to the right toward intrinsic motivation, the perceived locus of causality moves from purely external to purely internal. As one engages in an activity or behavior and begins to value it more, they are internalizing the behavior. One can move along the continuum toward internalization when the need for autonomy, competence, and relatedness are adequately met (Ryan & Deci, 2000). In education, we are interested in the facilitation that helps students internalize their experiences in the classroom, particularly situations where they are not intrinsically motivated to learn in a given setting. In this study, we examine the specific setting of Agricultural Education.

Related Studies and Previous Research in the Literature

I begin my review of related literature in the Agricultural Education discipline and expand my search to include the larger setting of education. Though motivation tends to be a popular subject in the Journal of Agricultural Education, the application of Self-determination Theory is sparse. James Anderson (2013) examined the motivational profile of secondary urban agriculture students using Deci and Ryan's (1985) theory. Anderson used the Academic Motivation Scale (AMS) developed by Vallerand, Blais,

Briere, and Pelletier (1992), which examines the students' environment profile as autonomous, controlled, or combined.

The study showed students had a rather autonomous feeling toward their engagement and involvement in the agriculture program, though Anderson (2013) points out the students were likely influenced by external motives. Moreover, the study showed the urban students in the study might not have enrolled in agriculture due to intrinsic interest in the subject; rather, their involvement may be more connected to external motivated to external motives such as a means to graduate from high school or attend college. The study also showed a connection between type of student motivation and perceived effort, with more intrinsic and introjected behavior leading to more student effort.

Vincent, Henry, and Anderson (2012) examined how students of color decided upon a college major using a SDT framework. Specifically, the authors sought to understand why non-White students made a decision to pursue a career in Agricultural Education. The results showed that students chose their majors based on internal and external factors, and while there were barriers, the authors concluded "agriculture teachers needed to make personal connections with students of color, the students' parents, and their communities" (Vincent et al., 2012, p. 195), connecting their findings to competence, relatedness and autonomy.

Bird, Martin, and Simonsen (2013) investigated students' involvement in Supervised Agricultural Experience (SAE) Programs in several time periods in history. The findings indicated most students' SAE's programs stemmed from external motivating factors, though internal motivation factors surfaced in terms of projects

students owned themselves or had interest in. The authors concluded that occasional external motivators are necessary to begin an action, though over time, motivation can internalize. These findings were consistent with Ryan and Deci's (2000) explanation of how individuals can internalize their motivation.

Beyond the context of Agricultural Education, Ng and Sears (2010) investigated the work values and labor market confidence of women and ethnic minorities through SDT. Their results indicated ethnic minorities and women placed stronger emphasis on extrinsic work values than Whites and males, though women value intrinsic outcomes less than men respectively. However, the authors cautioned minorities may begin to adopt the values and attitudes of those in the majority. Grandey (2003) explains minorities may alter their internal feelings in order to cope with inequality, also referred to as stereotype threat (Aronson, Quinn, & Spencer, 1998).

SDT researchers have discovered other important findings. Teachers who exhibit controlling behaviors in the classroom tend to create anxiety, boredom and alienation in the students (Niemi & Ryan, 2009). Moreover, students learn better when they are more intrinsically motivated, and "the way in which teachers introduce learning tasks are equally important to students' psychological needs for autonomy and competence, thereby either allowing intrinsic motivation to flourish and deeper learning to occur, or thwarting those processes" (p. 136). Moreover, Niemi et al. (2006) found secondary students who reported higher autonomous self-regulation for attending college reported greater vitality and lower rates of depression.

SDT has been used extensively in the sports, exercise, and physical education realms (Hagger & Chatzisarantis, 2007; Mullan, Markland, & Ingledew, 1997; Pelletier

et al., 1995), where studies have shown similar findings with regard to the importance of intrinsically motivated students and the need for competence, relatedness and autonomy. While some students engage in these activities intrinsically, the proper facilitation of extrinsic motivation can help students internalize their experience.

SDT has also been a popular framework for working with students with disabilities (Algozzine, Browder, Karvonen, Test, & Wood, 2001; Wehmeyer, Agran, & Hughes, 1998; Wehmeyer & Schwartz, 1997), where the implications and psychological needs for these students reflect SDT research in other areas, particularly the need for autonomy. Specific to students with disabilities, Algozzine et al. (2001) found through their review of multiple studies that self-determination can be taught, learned, and makes a significant difference in the lives of individuals with disabilities.

While previous Self-determination Theory studies have helped provide significance to the framework, particularly in the education field, I have also conducted a review of literature and previous studies associated with the cultural considerations and implications for this research study. Specifically, what is known about Latinos' involvement or lack thereof in Agricultural Education and the FFA? Do we know what is working in terms of increasing diversity in Agricultural Education?

Not long ago in 2001, Dr. Blannie Bowen (2001) was asked to deliver the American Association for Agricultural Education Distinguished Lecture at the annual research conference – his topic, diversity in Agricultural Education. Despite the time that has passed, his words still echo the sentiment of many in our profession and beyond:

Diversity is high on the agendas of many Americans and our profession. And yet, we have extreme difficulty discussing this topic with meaningful dialogue. We can talk about sex in mixed audiences and with less emotion than we can talk

about diversity within the Agricultural Education profession. Why? We understand diversity and its importance given America's demographics. But, most of us are ill-equipped and uncomfortable dealing with this topic that evokes considerable emotion while testing the soul and depth of our value systems (p. 1)

It is no surprise, given our nation's changing demographics and the lack of diversity in our profession, that there is growing interest in investigating diversity in our field. In fact, diversity is a part of the American Association for Agricultural Education (AAAE) national research agenda (Doerfert, 2011). There is a small but growing body of literature beginning to address the concerns Dr. Bowen spoke of a few years ago, though there are still many questions.

A study by LaVergne, Larke Jr., Elbert, and Jones (2011) found that teachers of secondary agriculture in Texas had positive views toward diversity inclusion. In order to increase diversity in their programs, teachers indicated the need for more role models for students of color and students with disabilities. Moreover, the teachers also indicated there was a lack of information with regard to students overall impression of agriculture, particularly with students of color. The researchers also found that a majority of agriculture teachers in the study did not enroll in diversity/multicultural courses during their undergraduate education.

LaVergne, Jones, Larke Jr., and Elbert (2012a, 2012b) conducted another study of Texas agriculture teachers and found there was a statistically significant difference between male and female agriculture teachers' mean scores on inclusion of students with disabilities, with males having a greater amount of negative opinions. Similarly, the study showed a statistically significant difference between teachers who taught in an urban environment and those who taught in rural schools with regard to solutions to increase

diversity in their programs. It should be noted, however, that the student demographics in these schools varied and may have affected the results. Partially informing the study as shown in figure 3, LaVergne (2008) previously introduced a Diversity Inclusive Model that illustrates how programs can ensure all students experience social equity and education.

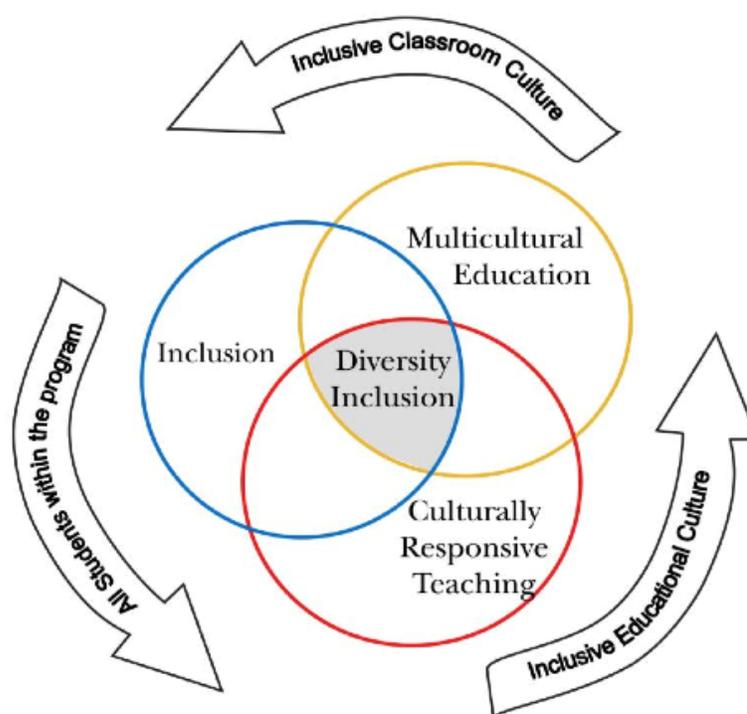


Figure 3. The Diversity Inclusive Program Model. Adapted from D. D. LaVergne, 2008, *Perceptions of Texas Agricultural Education teachers regarding diversity inclusion in secondary Agricultural Education programs*, (Unpublished doctoral dissertation). Texas A&M University, College Station, TX.

Students' choice to be involved in the FFA often begins with their choice to enroll in an agriculture class. A study by Talbert and Larke, Jr. (1995) investigated the

differences between why minority students enrolled in an introductory agriculture course versus non-minority students' in Texas. The descriptive findings showed minority students were underrepresented, particularly women, and that minority students were more likely to have negative perception about agriculture and Agricultural Education. Moreover, minority students also seemed to enroll in the course for reasons beyond their control, perceived more barriers to enrolling, and were less likely to see themselves in an agriculture career. Though the authors did not use SDT as a framework, we could apply the theory to the results, which would indicate minority students in the study seemed to be extrinsically motivated with an external perceived locus of causality (Ryan & Deci, 2000).

When examining the barriers to recruiting Hispanic students into an agriculture major at the collegiate level, Nichols, Jimmerson, and Nelson (1993) found Hispanics have more negative views toward agriculture, viewing it as farming, low paying, manual labor, low technology, poor working conditions, and limited career potential. These views tend to come from personal or family experiences of field work. The study also showed Hispanics who were more acculturated tended to have more positive views toward agriculture.

Investigating the barriers to involvement in the FFA among urban students also falls along the lines of similar diversity studies. In urban agriculture programs, which tend to be more diverse than rural programs, students do not participate in FFA at the same levels as rural students (Martin & Kitchel, 2014). Using a conceptual model illustrated in figure 4, the researchers found students did not agree with any of the perceived barriers to FFA involvement, a finding inconsistent with previous literature,

though the study did show 49.00% of the students enrolled in the agriculture classes did not join or participate in the FFA. The authors called for qualitative research to address these discrepancies. The study also found the perceptions of family, friends, and community need to be addressed when one considers recruitment of members.

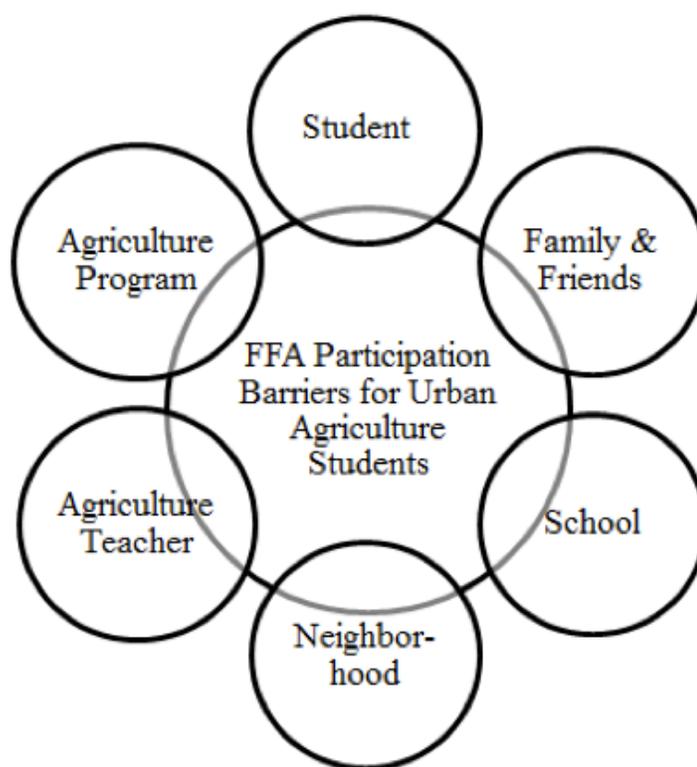


Figure 4. Conceptualization of barriers to FFA participation for urban agriculture students. Adapted from T. Kitchel and M. J. Martin, 2014, Barriers to participation in the National FFA Organization according to urban agriculture students, *Journal of Agricultural Education*, 55(1), p. 123.

Though limited to three schools in Texas, a study by Roberts et al. (2009) showed promise in developing strategies to help engage more Hispanic students in Agricultural

Education at the high school level. By utilizing six intervention strategies, the results showed an increase in Hispanic enrollment in Agricultural Education and FFA membership, participation at the local, state and national levels, and the development of alumni FFA chapters in each of the three schools. The treatments that led to the increased involvement were: (a) providing specific FFA or Agricultural Education experiences for student opinion leaders; (b) provide specific experiences for parents, alumni, boosters, and school administrators; (c) provide professional development for teachers; (d) introduce new curricula to allow for expansion of the program; (e) provide for an onsite project advisor; and, (f) provide project leadership and oversight through partnership with university faculty and National FFA staff. While the study yielded encouraging results, the project involved a significant amount of human and financial capital, and was funded through a corporate sponsor. The lessons learned could be valuable for other programs struggling to increase Hispanic enrollment and involvement; however, it is unclear if the program could be duplicated due to the required resources.

These studies help us begin to address the diversity of Agricultural Education, specifically the involvement of Latinos; however, it is clear that the research has been sparse and limited in our profession. Many questions remain. It is possible programs that have successfully increased the enrollment and involvement of Latino students might help us discover what is working and give us details about the experiences of Latino students who have somehow been motivated to engage. This study will hopefully continue the investigation into this important topic, and perhaps yield more positive strategies to address diversity in Agricultural Education in the United States.

Chapter Summary

Despite the growing Latino population in Agricultural Education, particularly in California, there is very little that we know about their experience and involvement.

Chapter 2 began with an examination of the pragmatic stance guiding this study and the underlying critical approach. A pragmatic stance approaches research with the practical application in mind, allowing the researcher to approach the research question with a variety of methods, particularly mixed methods.

LatCrit examines the multifaceted aspects of intersectionality in the lives of Latinos. Given the growing enrollment and importance of Latinos in the U.S. and California, the theory is valuable to understanding the experience of Latino students, particularly from their own point of view. Self-Determination Theory approaches motivation from the standpoint of humans' basic psychological needs, particularly those of autonomy, competence, and relatedness. Self-Determination Theory may help address why Latino students enroll and are involved in Agricultural Education in California.

Given these theoretical approaches, a variety of studies and related literature was reviewed. There have been few critical studies involving Latinos, particularly in Agricultural Education. Studies have shown promising results toward creating better environments for Latino students, but the interventions may not be realistic to implement on a large scale. This study will examine programs where Latino students are equally represented in Agricultural Education, hopefully exposing more organic conditions that may foster involvement.

CHAPTER 3: METHODOLOGY

Overview of Chapter 3

Chapter three begins with the examination of how California was selected for this study. Beyond the growing diversity, particularly among Latinos, California also has a large student population in Agricultural Education. Moreover, California maintains a large database on Agricultural Education students, teachers, and programs which will help fully develop the cases in this study.

The chapter then explains the design of the study, particularly that of parallel mixed methods. Mixed methods examines a research question from an integrated qualitative/quantitative study, and fits with a pragmatic paradigm. The chapter also explains the use of multiple cases to investigate the research question.

As an important piece of the quantitative portion of this research, the chapter examines the options available to assess motivation, and makes a case for the perceived competency scale and situated motivational scale. Moreover, the validity of the scales used in this study is discussed, along with related studies that helped validate them.

The chapter discusses case selection and provides a description of the unique characteristics of each agriculture program in the study. The chapter also provides details on the process of interacting with each school, gaining approval, providing information, and guiding the agriculture teachers through the process, including consent and administering the questionnaires. The chapter also examines the focus group selection, process, and protocol.

Data analysis is discussed for both the quantitative data as well as the focus group data. Validity and reliability are discussed with particular emphasis on providing details sufficient for replication of the study.

Purpose of the Study

The purpose of this study is twofold. First, this study will provide a quantitative analysis of Latino students in Agricultural Education in California at the state level as well as providing more detailed data in four selected cases, and secondly, the study will examine the experience of Latino students in Agricultural Education in their own words. As a mixed methods study, I will attempt to provide meaning to the quantitative data qualitatively. Additionally, this study will help inform further investigation into the Latino experience in other programs in California as well as across the nation. Finally, though Latino students are the population of interest in this research, I hope the results from this study will help inform studies of other historically underrepresented groups in agriculture education, in California and beyond.

Objectives of the Study

The objectives of the research study were to:

1. Describe the demographics of Agricultural Education students in CA over last ten years.
2. Describe the demographics of Agricultural Education students in California by FFA Region.
3. Describe the demographics of California students over the last ten years.

4. Describe the demographics of Agricultural Education teachers in California over the last ten years.
5. Describe the demographics of California secondary teachers over the last ten years.
6. Describe the demographic trends of each agriculture program in the study.
7. Describe the demographic trends of each high school in the study.
8. Describe the demographics of the teachers in each agriculture program in the study.
9. Describe the Perceived Competence and Situated Motivation for students in each of the four agriculture programs in the study.
10. Determine the post high school plans of students by ethnicity at each of the four agriculture programs in the study.
11. Describe the lived experience of Hispanic students in Agricultural Education.

Phase One: The Case for California

According to the National FFA Organization (2014e), California had the second largest FFA membership in the nation in 2012-2013 at 70,685 members. In California, every student enrolled in Agricultural Education receives automatic membership in the National FFA Organization, commonly referred to as *affiliate membership* (National FFA Organization, 2014b). With regard to this study, affiliation helps avoid any issues or possible inaccuracies that could arise when studying a state where students have the *option* of joining the FFA.

In addition to California's affiliate membership program, the state has three other characteristics that make it ideal for studying the Latino experience in Agricultural Education. First, California has seen a large transition in Hispanic enrollment in high

school agriculture programs over the last ten years. In 2002, Hispanics represented 44% of students in California public schools, yet Hispanics accounted for only 34% of Agricultural Education enrollment. As of 2013, Hispanic enrollment in Agricultural Education jumped to over 51%, nearly mirroring the statewide public school demographic data (CA R-2 Data, 2013; CBEDS, 2014). Moreover, the California Agricultural Education Unit compiles annual data from every agriculture program in the state, data that would add clarity, context, and reliability to this study. Finally, California is the first state where Hispanics account for the largest demographic group, a trend that may arise in other US states with growing Hispanic populations (Carroll, 2014).

In order to inform the second phase of this study, five objectives were developed to facilitate site selection for phase two and provide an overall snapshot of California as the state of interest in this study. Prior to investigating these objectives, a proposal was sent to the Oregon State IRB in order to determine if phase one of this study fell into the exempt category. As the data were blinded and already collected by the California Department of Education, IRB found this portion of the study to be exempt.

The R-2 Report and Phase One Data Collection

California Agricultural Education programs receive specialized funding from the State of California based on several *quality criteria*. These criteria provide an incentive for local programs to improve or maintain excellence. Participating schools receive state funds based on their annual report and a complex formula devised to split the statewide funds among the qualifying programs. The more quality criteria a given agriculture program meets, including the total number of enrolled students, the larger the share of the total statewide allocation it receives. Moreover, any funds received by each school must

be matched by the local school district. These funds are used to operate the program and help supplement local and federal funds. As the state requires each agriculture program in the state to report annual program data, a vast and reliable data source is available in California in order to examine the statewide and local impacts of Agricultural Education (CDE, 2014).

One important piece of the R-2 data collected includes student and teacher demographics along with program completion rates. In fact, records exist since the inception of the Ag Incentive Grant in 1983. The data are currently managed by Dr. Mike Spiess, a professor at Chico State University and consultant to the California Department of Education. Once Oregon State University IRB approval was granted for this study, Dr. Spiess provided access to the R-2 data in order to conduct this study. Data applicable to the objectives of this study, covering the last ten years of Ag Ed in California, were analyzed in Microsoft Excel and SPSS version 21. The California Department of Education's Basic Educational Data System (CBEDS) provided school and statewide demographic data not specific to Agricultural Education. This database is freely accessible to the public and provides detailed demographic information on state schools.

Research Design of Phase Two: A Parallel Mixed Methods Multiple Case Study Design

Myriad options with regard to methodology were examined and studied in order to most accurately address the purpose of this study and specific objectives. I have attempted to summarize the options that were considered and explain the rationale for choosing a specific type of mixed methods for this study. With today's researchers situated in the qualitative, quantitative, and mixed methods paradigms, it is difficult to

choose the appropriate methodology within all of the chaos. Each of the paradigms is ripe with strengths and weaknesses, affordances and limitations. Johnson and Onwuegbuzie (2004) outline the strengths and weaknesses of each research paradigm, but argue despite these apparent strengths and limitations; it is up to the researcher to choose the best and most appropriate method to answer the research question at hand. Moreover, if a qualitative or mixed methods paradigm is chosen, the researcher is responsible to create “designs that effectively answer their research questions” (p. 20). This may limit the generalizability of many qualitative methods, as the researcher him or herself is held accountable for the design of the study rather than the proven imperial methods of quantitative research. Furthermore, qualitative research cannot provide statistical predictions, and data analysis is much more time consuming. A strength of qualitative research, however, is its ability to more accurately describe and identify unique phenomenon through data collection and analysis. For many, a mixed methods research approach helps address the strengths and concerns of any individual methodology.

While many interpretations of mixed methods research continue to evolve, the field is moving closer toward specific approaches. First it is necessary to become familiar with the variances that exist in mixed methods research. As outlined earlier, mixed methods research involves the synergistic application of both qualitative and quantitative approaches, typically taking place in concert (e.g. a questionnaire with a summated scale and open-ended questions). This does not, however, mean that all mixed methods studies look the same. Some studies involve phases where one method is used followed by another method in the next phase. Researchers may also choose to place emphasis on a particular aspect of their study (Johnson, Onwuegbuzie & Turner, 2007).

As figure 5 shows, one can situate his or her research from the far left of a continuum, known as pure qualitative (QUAL), to the far right, known as pure quantitative (QUAN). Both of these ends of the continuum would be examples of a monomethod approach, but as we move in toward the center, what is known as pure mixed method, the researcher can choose a qualitative mixed study, which emphasizes qualitative over quantitative (QUAL+quan). The authors define a qualitative dominant mixed methods approach as “the type of mixed research in which one relies on a qualitative, constructivist-poststructuralist-critical view of the research process, while concurrently recognizing that the addition of quantitative data and approaches are likely to benefit most research projects” (Johnson et al., 2007, p. 124).

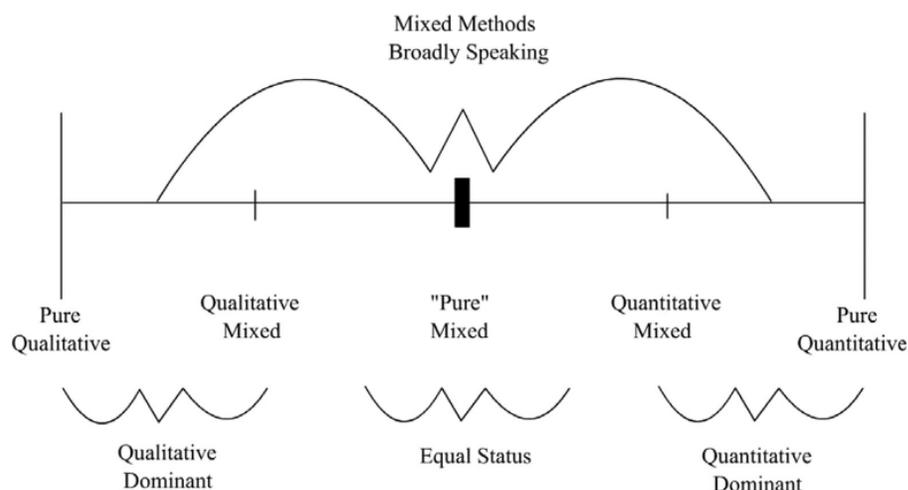


Figure 5. Graphic of three major research paradigms, including subtypes of mixed methods approaches. Adapted from R. B. Johnson, A. J. Onwuegbuzie, and L. A. Turner, 2007, *Journal of Mixed Methods Research*, 1(2), p. 124.

Tashakkori and Teddlie (2010) describe the mixed methods landscape as emerging. In their handbook on the subject, they organize the emerging areas into three parts: (1) conceptual orientations, which include philosophical, theoretical and sociopolitical issues in mixed methods; (2) issues regarding methods and methodology,

or the how to of mixed methods research; and (3) contemporary applications of mixed methods research, where mixed methods is examined across different disciplines and topic areas. Donna Mertens (2010) describes mixed methods research as an approach to integrating diversity within a study, specifically examining a transformative and pragmatic approach to mixed methods research. Tashakkori and Teddlie's (2010) text provides a comprehensive look at mixed methods in social science as a whole, while Creswell (2014) provides a detailed investigation into three primary mixed methodologies. Though these methodologies are not exclusive, they do provide the basis for a thorough discussion on the strengths and weaknesses of each approach.

Before choosing a specific mixed method approach to research, it is important to understand the ontological and epistemological stances one takes when approaching a research question. Niglas (2010) argues, to effectively design empirical research, a systematic evaluation of various philosophical orientations, methodological approaches, and aspects of design must be addressed. While some researchers do identify with certain philosophical stances which tend to guide their research, Mertens (2010) suggests some researchers choose mixed methods because this approach best addresses the "nature of the phenomena being investigated, the contexts in which the study is conducted, or the funding agencies' requirements" (p. 295), while concurrently adding caution that a thorough understanding of the philosophical basis of a methodological approach can offer a better understanding of the complexities of social science research. However, Mertens (2010) further argues, despite some researchers' failure to understand their own philosophical paradigm, and therefore do not clearly chose or state one, their research still rests on an unconscious paradigm. Ultimately, mixed methods cannot be pigeon-

holed as a type of design or paradigm in itself, rather, it is an approach based on a certain type of paradigm, and a set of methods best prescribed to address a certain research question (Gorard, 2010).

Researchers of the transformative paradigm “explicitly position themselves side by side with the less powerful in a joint effort to bring about social transformation” (Mertens, 2010, p. 21). Moreover, these researchers take on the issues of groups that have been traditionally marginalized through oppression. Transformative researchers posit, while there are multiple ways of knowing, some ways are privileged over others. With this in mind, transformative researchers avoid the claim that they objectively examine certain phenomenon, rather, they explicitly acknowledge their social justice cause and seek research that will help address the plight of the oppressed. In this study, I have bracketed myself with regard to the analysis of the data, though I would claim a transformative stance with regard to the motivation for this study.

Pragmatism, or the claim that one can approach research absent of any philosophical assumptions has been argued as one of the core approaches by many mixed methods researchers (Teddlie & Tashakkori, 2009). Rather than approaching a research problem or question from a philosophical stance, pragmatists chose a research area that resonates with them, and seek to identify types of analysis that will result in interesting responses that are “congruent with their value system” (p. 91). In other words, pragmatists approach their research without any claims of objectivity. To this, Biesta (2010) argues while acknowledging that pragmatism can help researchers ask better and questions about the philosophical implications of their research design, it should not be viewed as the philosophical foundation for mixed methods research. Essentially,

pragmatism should be viewed as a tool for investigating various mixed methods approaches, not as an excuse to ignore existing ontological and epistemological implications of various research designs.

Another philosophical approach to mixed methods research is taking a dialectic approach, which involves more than one type of method under the assumption there are multiple ways of seeing and making sense of the world (Greene & Hall, 2010). Rather than force oneself into a quantitative paradigm, qualitative paradigm, or pragmatic mixed methods paradigm, taking a dialectic approach allows a researcher to fully explore research through more than one lens, thereby offering important insight through investigating what is congruent and different in their data by using each lens. In an efficient comparison of pragmatic and dialectic approaches, Greene and Hall (2010) state “an inquirer with a dialectic stance aspires to surface, engage, and legitimize difference in the social world, toward greater understanding and acceptance of difference...the pragmatist seeks actionable knowledge, knowledge laced with guidance about what to do” (p. 140). Each of these philosophical stances can provide the researcher with a means to an end in a mixed methods approach.

The combination of this study’s qualitative focus group and the existing demographic data and motivation instruments are based upon the pragmatist view that the researcher will choose the methods and approaches that will address the research questions. Taking a pragmatic stance does not excuse me from the rigor and methodological expectations required of a sound study, however, it does allow for the examination of the Latino experience from many perspectives, including taking a transformative stance.

When the quantitative and qualitative aspects of a study take place concurrently, they are often referred to as a convergent parallel mixed method design, one where the researcher collects qualitative and quantitative data separately, analyzes them separately, and then makes a comparison between the results to determine confirmability (Guba & Lincoln, 1994). This method focuses on the ability for qualitative and quantitative data to provide the researcher with different types of information, though ideally the two would yield similar results. Mertens (2010) describes this approach as one of parallel form, and goes on to emphasize the concurrence of data analysis.

Initially, each case was analyzed and presented independently. Next, cases were combined and a cross case analysis was conducted to provide the overall Latino experience across cases. Each case was analyzed for themes, and then the themes of each case were examined to determine any themes that transcended all of the cases (Yin, 2014). Analysis was provided to account for any unique characteristics that emerged in a specific case that may have impacted the results.

Instrumentation

I chose to seek existing SDT instruments in order to avoid the issue of validating a new scale. Such validation would have required pilot testing the questionnaire or conducting a pre-post assessment. Given the study targeted high school students, I determined such approaches would be more disruptive to the classroom environment. Moreover, pilot testing or pre-post assessments would also require more time and effort of the school administration, teachers, and students.

Several questionnaires and constructs exist that may be useful for examining student motivation in Agricultural Education. I began my search in the literature and

through the available questionnaires available on the Self-Determination Web Site (SDT, 2014). Immediately I found the Perceived Competence Scale (PCS) to be useful as it clearly examines competence within specific domains and was found to have reliability greater than $\alpha = .80$. Moreover, the scale is relatively short, with only four questions, which would help reduce student fatigue. The scale specifically targets competence, one of the three fundamental areas of the SDT and an important factor related to one's goal attainment and satisfaction from engaging in activities in which they feel they can be successful – in this case, Agricultural Education.

While PCS would be useful in examining students' perceived competence, I needed another scale that would help shed light on students' level of autonomy and intrinsic motivation. In reviewing the scales provided on the SDT web site, I determined each would be difficult to apply the Agricultural Education setting without significant changes, thus requiring another pilot test. As such, I returned to the literature to identify a specific scale that would be useful for this study.

Intrinsic motivation refers to activities one engages in for their own sake (Deci, 1972) while external regulation refers to behavior that is regulated by rewards or in order to avoid negative consequences. Identified regulation refers to one's choice to engage in an activity, but for a benefit that will come later. This type of activity is still considered extrinsic, as the individual does not engage in the activity for its own sake (Guay, Vallerand, & Blanchard, 2000). Amotivation describes activities that are neither intrinsically nor extrinsically motivated. These activities are considered the least self-determined because there is no internal desire within the individual to engage, no possible

reward or negative consequence, or no realization there may be some benefit down the road (Deci & Ryan, 1985).

Two categories exist for the measurement of situational motivation. Behavioral measures, which typically involve an observation by experts while a subject chooses to engage in an activity, typically in a laboratory setting, and self-report measures, where an individual completes a questionnaire or personal assessment (Guay, et al., 2000). The former category would be problematic in terms of access and classroom disruption in this study; thus, I chose to utilize a self-report type instrument. Guay et al. (2000) developed their Situational Motivation Scale (SIMS) instrument to measure motivation through four sub-scales including intrinsic motivation, identified regulation, external regulation, and amotivation. The instrument is unique to other scales in that it fully addresses Deci and Ryan's (1985) definitions of extrinsic motivation while adding an amotivation component.

In order to validate their instrument, Guay et al. (2000) conducted five separate studies of differing characteristics including one laboratory study. Studies one through three took place in an educational setting, with study one reporting internal consistency values of: intrinsic motivation $\alpha = .95$, identified regulation $\alpha = .80$, external regulation $\alpha = .86$, and amotivation $\alpha = .77$. In study two, the internal consistency values were: intrinsic motivation $\alpha = .93$, identified regulation $\alpha = .81$, external regulation $\alpha = .75$, and amotivation $\alpha = .78$. Study three internal consistency values were: intrinsic motivation $\alpha = .95$, identified regulation $\alpha = .85$, external regulation $\alpha = .62$, and amotivation $\alpha = .83$. In study four, Guay et al. (2000) collected data in two waves, reporting the following internal consistency values: Time-1 intrinsic motivation $\alpha = .87$, Time-2 intrinsic

motivation $\alpha = .93$, Time-1 identified regulation $\alpha = .67$, Time-2 identified regulation $\alpha = .84$, Time-1 external regulation $\alpha = .83$, Time-2 external regulation $\alpha = .90$, and Time-1 amotivation $\alpha = .80$, Time-2 amotivation $\alpha = .87$.

As the SIMS scale examines motivation within context, I combined the PCS and SIMS and situated them to a secondary high school Agricultural Education setting, also referred to as School-Based Agricultural Education (National FFA Org., 2014). The scales describe an activity or setting, and in this case, I purposefully made the agriculture program/class setting explicit in the questionnaire and instructions, which were to be given by the agriculture instructor. The combined questionnaire, (see Appendix A) included the four Likert-type PCS questions with responses ranging from 1 “not at all true,” to 7 “very true.” The SIMS scale included sixteen questions examining why the respondents were enrolled in the agriculture program. The Likert-type responses ranged from 1 “corresponds not at all,” to 7 “corresponds exactly.”

Though I chose the SIMS and PCS instruments, Guay, Ratelle & Chanal (2008) provide a thorough analysis of other scales applicable to education. The Academic Motivation Scale (AMS), developed by Vallerand, et al., (1989) and the Self-Regulation Questionnaire-Academic (SRQ-A) effectively assess intrinsic and extrinsic motivation; however, the context of education in the studies using these scales is very traditional. Agricultural Education involves classroom instruction, an FFA leadership component, and experiential learning (SAE) as outlined in Figure 6. These additional aspects of Agricultural Education and the situated setting these aspects facilitate, require a scale that has been validated in similar contexts. As noted previously, the SIMS scale has been validated in education settings, leisure activities, and interpersonal situations. In the

classroom, the area of the Agricultural Education model that most closely matches a traditional education setting, students engage in situations similar to the educational studies Guay et al. (2000) describe in their validation studies of the SIMS. Similarly, the FFA leadership component of the Agricultural Education model matches nicely with the SIMS interpersonal example, while the SAE component mirrors the leisure example used in validating the SIMS assessment. While the SAE portion of the model is designed as an experiential learning activity, it nonetheless involves quite a bit of autonomy with regard to students' choice of project. Additionally, the SIMS and PCS assessments are shorter in format than the alternative assessments, leading to less disruption of class time. As agriculture programs in California that receive Ag Incentive Grant funding, each of the schools in the study is required to adhere to the three circle model.

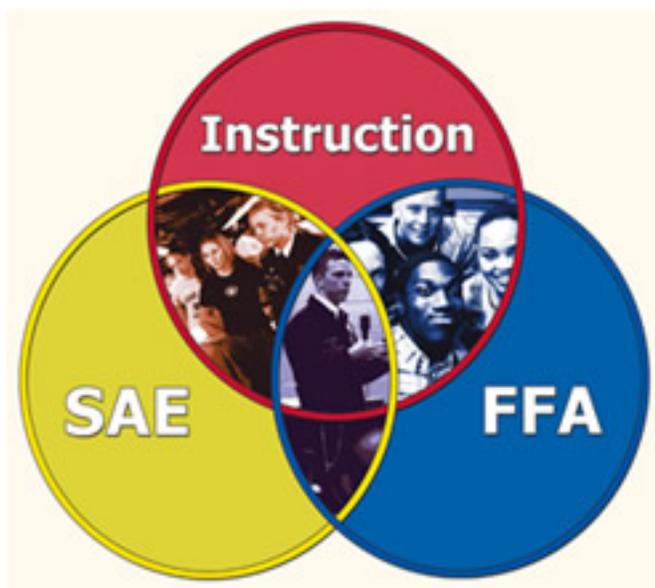


Figure 6. Agricultural Education is based on a model including: (1) classroom instruction; (2) Supervised Agricultural Experience Program (SAE) or experiential learning; and, (3) FFA, the leadership component. (National FFA Org., 2014d).

Finally, I note the intentional absence of a relatedness scale with regard to evaluating the Agricultural Education students' motivation. The SIMS and PCS assessments were given to all eligible students enrolled in the agriculture programs in this study, including ninth graders or first year agriculture students. I posit relatedness would depend, at least to some degree, on the agriculture teachers in each program as well as students' individual backgrounds and agricultural literacy. Moreover, it seems this aspect of motivation would be addressed more comprehensively through qualitative means, and may arise from the focus groups in this study.

Selection of Cases

In order to conduct the multiple case study (Yin, 2014), an initial analysis was conducted of the statewide data in order to find agriculture programs with Hispanic populations that were representative of each school's Hispanic population. Also referred to as a multisite study (Creswell, 2013) or collective case study, this method allows for the examination of several cases in order to allow a deeper understanding of a certain phenomenon (Berg & Lune, 2012). Widmer, Hirschi, Serdult and Vögeli (2005) argue case studies are an effective way to examine social processes and "generate relevant evidence of particularities" (p. 151). According to Creswell (2013), case studies are a type of methodology where one can "develop an in depth understanding of a single case or explore an issue or problem using the case as a specific illustration...the unit of analysis can be a single case or multiple cases" (p. 97).

As the phenomenon being studied was the Latino experience in Agricultural Education, only schools where the number of Hispanic students approached or exceeded the statewide average were considered. While studying schools that were not

representative demographically would be valuable to understanding the Latino experience in Agricultural Education, I purposively selected programs where demographics were similar in order to combine the multiple cases for analysis, though I was mindful that other factors, some unique to each school, would surface during the qualitative phase of the study. Merriam (2009) explains this concept by arguing some “variables are so embedded in the situation as to be impossible to identify ahead of time” (pp. 45-46). As these factors emerged, they were carefully reported in order to fully situate the Latino experience in each school. According to Yin (2014), the context of each case will differ to some degree, preventing a researcher from generalizing from one case to another; however, selecting multiple, similar cases, also known as literal replication, helps ensure reliable results.

Description of Cases

A careful balance of clear case description is provided, though details are purposely omitted in order to keep the identity of each school and agriculture program confidential. Pseudonyms were also used. In order to replicate this study, researchers should focus attention to the demographics of each school along with the statewide demographics. As stated previously, each case contains unique variables, many of which emerged through the data collection and analysis. Finally, the anonymity of each school helps protect the teachers, students, and community, as my goal is not to evaluate. My attempt is to tell the story of the students enrolled in these programs. Initially, eight schools meeting the desired characteristics for the study were contacted. While there was eventual agreement by all of the schools I approached to participate in the study, four cases were selected, as researchers typically choose no more than four or five cases

(Creswell, 2013). While all of the schools I approached met the desired characteristics of being a case, I selected the first four schools to garner administrative approval.

The information presented about each focus group student was based on voluntary information they provided during the focus group, to protect their identity, no personal information was requested.

Central High School

Located in the same city as both Georgia and Ocean High Schools, Central High School was constructed many decades after Georgia High School opened, and only recently opened an agriculture program. The program is small, with only two teachers, and is comprised of mostly city students.

All of the students in the Central High School focus group self-identified as Latino, Hispanic, Chicano, or Mexican. The following students participated in the focus group discussion: Ian, a male junior; Thomas, a male senior; Zoe, a female Junior who was new in the program this year; Andrea, a female senior from Santa Barbara, CA originally; Enrique, a male junior, Sara, a female senior, and Gabe, a male senior. All students reported themselves as being active in the program, though their involvement differed.

Georgia High School

Georgia High School is located in Central California in an agriculturally productive region. The school is the original high school in a small city that now consists of two other high schools, both of which are a part of this study. Similar to Washington High School, the program has a history of excellence in terms of FFA, SAE, and Career

Development Events (CDE's). In comparison to the high school, the agriculture program is large with four teachers, and draws from a combination of city and rural students.

All of the students in the Georgia High School focus group self-identified as Latino, Hispanic, Chicano, or Mexican. The following students participated in the focus group discussion: Diego, a male senior who grew up in Southern California; Adrian, a male junior who's father is an agricultural labor contractor; Javier, a male junior; Ricky, a male senior who shared he was homosexual; Rosa, a female senior, and Lucas, a male junior. All students reported themselves as being active in the program, though their involvement differed.

Ocean High School

Just recently graduating its first class of seniors, Ocean High School has been open for only a few years. Located in the same city as Georgia and Central High Schools, Ocean High opened with a small agriculture program with one full time teacher. Students at the school come from nearby housing developments and a small town a few miles away from the school. Only a small percentage of students at Ocean High School come from rural areas.

All of the students in the Ocean High School focus group self-identified as Latino, Hispanic, Chicano, or Mexican. The following students participated in the focus group discussion: Ethan, a male senior; David, a male senior; Isabella, a female senior; Emma, a female senior; and Sofia, a female senior who did not enroll in the program until her sophomore year. All students reported themselves as being active in the program, though their involvement differed.

Washington High School

Washington High School is located in Northern California, and one of two high schools located in a small incorporated city. The school was once the only high school in the city until a second high school opened less than ten years ago. Both schools have agriculture programs, though the new school tends to draw from rural areas while Washington High School consists mostly of students living within the city. Three agriculture teachers are employed in the program, which offers a wide variety of agriculture courses. The FFA program has a strong tradition of student leadership, SAE, and CDE Successes.

All of the students in the Washington High School focus group self-identified as Latino, Hispanic, Chicano, or Mexican. The following students participated in the focus group discussion: Vincent, a male junior; Ricardo, a male junior; Olivia, a female junior; Maria, a female junior; Frank, a male senior, and Sam, a male senior. All students reported themselves as being active in the program. All students were from the local area originally.

Communication with Schools

The initial communication with each school's agriculture program was conducted through email and it should be noted I knew and worked with each of the lead agriculture teachers in this study during my time as an agriculture educator in California. I carefully considered this and the potential impact it may have on the study; however, I determined my professional history with the teachers would not impact my study, as they were not the primary subjects in my research. The initial email, of which a sample is provided in Appendix B, outlined the basic aspects of the study, what would be required of the

teachers and students, and how the school and IRB approval process would work should the teacher agree. Each teacher was asked to respond with any questions and was given time to confer with his or her colleagues in the agriculture program prior to moving to the next step.

Once each of the programs indicated their interest in participating in the study, the lead agriculture teacher was sent a research proposal (Appendix C), and asked to gain approval from their school and/or district in the form of a letter of support. The teachers in the program were asked to submit any questions and points of clarification prior to their own site approval process. The administrators responsible for the approval process were also provided my contact information in case they had any questions.

Washington High School required approval from the high school principal, who quickly granted approval through a written letter of agreement – an example of such an agreement was provided to each school in the research protocol. Georgia, Central, and Ocean High School each required district level approval, and a letter from the district superintendent was provided. All of the study sites responded with approval within seven days and indicated their agreement and support for the study. These letters of support were provided as addendums to the Oregon State IRB research protocol. Upon receiving the letters of support from each of the research sites, the IRB granted approval for the study and phase II of the study began.

Conducting the Motivation Questionnaire

As I would not be present to administer the motivation questionnaire, it was important to obtain reliability through detailed instructions and clear expectations in each agriculture program in the study. This would require a thorough understanding of and

clear directions for administering the questionnaire, including participants' rights and maintaining their anonymity after the instrument was collected. Moreover, a clear protocol for handling the signed consent and assent forms as well as the individual questionnaires was necessary.

Each research site was provided with a clear set of instructions (Appendix D) that outlined all of these considerations. Once they had reviewed the research instructions, I contacted the lead agriculture teacher in each program in order to make sure the instructions were understood. The lead agriculture teacher then provided the materials to their colleagues and provided training on the protocol.

Each school was sent consent and assent forms in English and Spanish. The parents or the legal guardian(s) of every student who was under eighteen years of age was sent a consent form for the qualitative phase of the study. Forms were provided in Spanish for those who were in the schools' records as speaking Spanish or when otherwise requested. A certified expert translated the qualitative focus group forms as well as the quantitative questionnaire forms. These forms were provided to the Oregon State IRB for review along with the English consent and assent forms. Consent forms were given to students who were eighteen or older, though they were able to complete these forms without the approval of a parent or guardian. As students who participated in the study would need to speak English to participate, the assent forms were not translated. As reported directly by the schools, all of the participating students in the four research sites were able to read and understand English.

To protect the anonymity of participants, the lead agriculture teacher worked to coordinate the accounting of consent forms to ensure only students who had returned the

required forms would be issued the questionnaire. Students who did not return the forms or who opted out of the survey were not given the questionnaire. On average, each school gave students one week to return the signed forms. As the instrument was administered in class, students who did not participate were given an alternate standards-based assignment in order to minimize disruption to class time. I worked with the schools directly to ensure an assignment existed for each student who did not participate in the study. The survey took approximately fifteen minutes to administer. Students were read instructions by their agriculture teacher prior to the questionnaire and were reminded their participation was optional. Each teacher was asked to account for students who opted out and students who were absent on the day the questionnaire was administered. In order to ensure reliability and minimize disruption to class time, absent students were not allowed to make up the questionnaire on the day they returned. Finally, every student who participated was asked to complete an assent form before beginning the questionnaire. This process was to ensure students were willing themselves to participate in the study despite the approval of their guardian.

The lead agriculture teacher at each research site compiled the completed questionnaires and submitted a report indicating the number of absences, eligible students, and students who opted out. Each school was provided with a Federal Express return shipping label – all consent, assent, and questionnaires were shipped to me. Once receiving the forms, I counted and cross-referenced the returned forms with the numbers provided to me by the lead agriculture teacher. Moreover, each form, already blinded by the lead agriculture teacher, was labeled with a special code that matched the excel file, allowing me to return to a specific form in case of errors or missing data. Consent and

assent forms were filed and stored in a secure location and the data from the questionnaires were entered into Microsoft Excel for easy and secure data storage. Once entered into a password-protected computer, the completed questionnaires were securely stored.

The Central High School Agriculture Program had a 27.71% ($f = 69$) participation rate in the questionnaire. A total of 249 students were eligible to participate in the survey, of which 84 forms were completed. Of the completed forms, 15 were excluded due to participant error. The remainder of the students who did not participate, 165 total, were either absent during the survey or did not return a consent form. Two Spanish consent forms were requested by students.

The Georgia High School Agriculture Program had a 47.64% ($f = 262$) participation rate in the questionnaire. A total of 550 students were eligible to participate in the survey, of which 301 forms were completed. Of the completed forms, 39 were excluded due to participant error. The remainder of the students who did not participate, 249 total, were either absent during the survey or did not return a consent form. Students requested 19 Spanish consent forms.

The Ocean High School Agriculture Program had a 30.51% ($f = 54$) participation rate in the questionnaire. A total of 177 students were eligible to participate in the survey, of which 61 forms were completed. Of the completed forms, 7 were excluded due to participant error. The remainder of the students who did not participate, 116 total, were either absent during the survey or did not return a consent form. No students requested any Spanish consent forms.

The Washington High School Agriculture Program had a 23.90% ($f = 76$) participation rate in the questionnaire. A total of 318 students were eligible to participate in the survey, of which 88 forms were completed. Of the completed forms, 12 were excluded due to participant error. The remainder of the students who did not participate, 230 total, were either absent during the survey or did not return a consent form. No students requested any Spanish consent forms.

Quantitative Data Analysis

The completed Excel spreadsheets were uploaded into SPSS version 21 for data analysis. Descriptive statistics were provided by each school and agriculture program in the study. Using the constructs provided by Guay et al. (2000) and Williams and Deci (1996), a Cronbach's alpha reliability was computed for each subscale for each school. Reliabilities are reported in the Chapter 4. Prior to analyzing the motivation data from each agriculture program in the study, a post hoc analysis of internal consistency was conducted on each subscale using Pearson-product moment correlation in SPSS. Table 1 shows the results for each program in the study. Results for the SIMS were fairly consistent with those of Guay et al. (2000), though the external regulation subscale for Ocean High School showed a reliability of $\alpha = .53$, which George and Mallery (2003) classify as poor; however each of the other alphas were in the good or excellent range. All of the PCS (SDT, 2014) reliabilities were $\alpha > 0.81$, falling in the good range for internal consistency (George & Mallery, 2003).

An independent sample *t*-test was computed for each subscale to determine the difference in motivation between Hispanic and non-Hispanic students in each of the four schools in the study. An alpha level of $p < 0.05$ was set *a priori*. No assumptions are

made with regard to one ethnicity group being more highly motivated than another in Agricultural Education; rather, this is an exploratory study. Moreover, no research was found in Agricultural Education that would inform such a hypothesis.

Table 1

Post-Hoc Reliability

Construct Reliability by Case	α
Central HS	
Perceived competence	.91
Intrinsic motivation	.89
Identified regulation	.82
External regulation	.85
Amotivation	.89
Georgia HS	
Perceived competence	.93
Intrinsic motivation	.90
Identified regulation	.86
External regulation	.77
Amotivation	.82
Ocean HS	
Perceived competence	.86
Intrinsic motivation	.82
Identified regulation	.78
External regulation	.53
Amotivation	.91
Washington HS	
Perceived competence	.89
Intrinsic motivation	.91
Identified regulation	.84
External regulation	.80
Amotivation	.92

In order to clearly describe the findings, table 2 describes the terminology used to define the levels of motivation represented in the mean scores for each subscale. As external motivation and amotivation tend to indicate low levels of motivation, their scores are reciprocal of the other scales.

Table 2
Motivation Score Terminology

Scale	Mean Level of Student Motivation		
	Low	Moderate	High
Perceived Comp.	1.00 - 2.99	3.0 - 5.00	5.01 - 7.00
Intrinsic Mot.	1.00 - 2.99	3.0 - 5.00	5.01 - 7.00
Identified Reg.	1.00 - 2.99	3.0 - 5.00	5.01 - 7.00
External Reg.	5.01 - 7.00	3.0 - 5.00	1.00 - 2.99
Amotivation	5.01 - 7.00	3.0 - 5.00	1.00 - 2.99

Note. High external regulation and amotivation scores indicate low motivation.

Focus Group Selection and Design

Concurrent with the qualitative questionnaire, the lead agriculture teachers were also sent instructions for selecting students for a focus group. The teacher was sent a set of criteria and was provided with a recruitment flyer. In order to qualify for the focus groups, students needed to meet the following criteria: a) Be Hispanic or Latino/a; b) Be enrolled in the agriculture program; c) Be able to speak and understand English; and, d) Sign and return a consent form. Beyond these basic requirements, the lead agriculture teacher was asked to recruit 5-7 students who represented a wide range of characteristics, including year in school, involvement level in the agriculture program, academic ability, and involvement in other school activities. The focus group was designed to hear from a wide range of students at each research site. Descriptions of each student participant are reported in the results, though careful consideration was given to protect their identities – pseudonyms were used. Each lead teacher promoted the event on his or her school site and helped select students who met the qualifications.

Selected students were provided with consent forms to be sent home if they were under eighteen and assent forms if they were adults. The form explained the commitment of one hour of their time, the related risks, and that there would be no incentive other than

light refreshments if they chose to participate. Once 5-7 students were selected, the lead agriculture teacher worked with me to schedule a time to hold the focus group. I also requested that a neutral school official be present who could observe the focus groups, indicating this should not be a teacher in the program due to potential influence in student responses.

Once scheduled, each focus group lasted one hour and followed the protocol outlined in Appendix F. The focus group consisted of seven questions. Following the guidelines in Berg and Lune (2012) and Morgan (1996), the focus group was semi-structured in format as I asked several follow up probing questions. The focus group protocol and questions were reviewed by a panel of experts consisting of a research methods professor, a sociology professor with expertise in ethnic studies, a bi-lingual Latina graduate student, and a Latina student with a background in California Agricultural Education to determine its validity and cultural appropriateness.

The focus groups began with an icebreaker activity to put the participants at ease. During the focus group interview, I attempted to remain as quiet as possible and let the students' lived experiences come to life through their discourse. In order to transcribe and identify each speaker, the focus groups were video and audio recorded. Moreover, I took as few notes as possible in order to maintain my focus on the speaker and minimize distraction of the participants. Students were asked to share as much or as little as they felt comfortable, were reminded of their ability to opt out at any time, and were asked to keep the responses shared in the focus group confidential. Upon completing each focus group, I asked again if there were any questions and thanked each participant. Before

leaving the site, I immediately drafted a theoretical memo to capture my initial thoughts and impressions of each focus group session.

Focus Group Data Analysis

Each focus group was transcribed word for word using the video and audio captured during the event, though light edits were made to filler words such as “ah” or “um” and line numbers were added to each transcript. As previously mentioned, each case was analyzed independently. I approached each case as its own study in order to minimize the influence of one case on another until analysis of each case was complete. I began by watching the video of a particular case once through entirely, not taking any notes, simply immersing myself in the experience again prior to coding. Next, I reviewed my initial analytic memo for the case I was working on, comparing my thoughts immediately after the focus group to after reviewing the video. During a second viewing of the video, I followed along with the transcript, marking significant or meaningful moments in the text as students spoke using an open coding process (Maxwell, 2012). With a series of meaningful quotes, I reviewed the selected quotes for themes, then returned to the entire transcript to identify all of the related quotes to help develop each theme with thick and rich descriptions (Denzin, 1989). Finally, I reviewed the transcript again, to ensure I did not overlook important quotes or possible themes.

Upon completing a specific case, I walked away from the data, usually for at least one day, returning to the next new case with a fresh perspective. I was careful to examine my own personal thoughts, feelings, and state to ensure I was approaching the next case with the same persona as the previous. Once each case was analyzed and results were determined by case, a cross case analysis was conducted to summate and compare the

results across cases (Yin, 2014). To accomplish this, I began reviewing and comparing the themes from each of the four cases before returning to the results of each case to develop transcendent themes for the multiple cases.

Validity and Reliability

In order to ensure reliability and validity, Yin (2014) outlines four categories to consider. For construct validity, I established a chain of evidence and have maintained all related data, transcripts, and documents from the study and transcript line numbers were reported in the results when quoting participants. Moreover, the data were collected through two sources, including the questionnaire and the focus group discussion. These sources of data were complemented and informed by the statewide data set provided through the R-2 report and the CBEDs data system. In order to address internal validity, explanation building was conducted through the case-by-case and cross case analysis. Additionally, rival explanations and interpretations of the data were addressed. To ensure external validity, replication logic was utilized in the site selection process for each of the four studies. Reliability was addressed through the thoroughness and transparency of the procedures, providing future researchers with the details required to replicate the study.

Objectivity is closely related to replication in a case study (Yin, 2014). Provided the assumptions and definitions are valid in a study, then we can assume the conclusions are also valid. Every attempt to provide clear definitions and explain the assumptions of this study has been addressed. Case studies are as “objective as any other data-collection and analysis strategies used by social scientists” (Yin, 2014, p. 341). Generalizability is complicated in a mixed methods case study. Some disregard generalizability, arguing the value of understanding a single case, group, or situation. Despite this claim, case studies

are generalizable to some extent, when compared to similar cases and situations (Yin, 2014). It is up to the consumer of case study research to decide the extent the data can be generalized and transferred (Lincoln & Guba, 1985). Merriam (2009) adds “the more cases included in a study, and the greater the variation across cases, the more compelling an interpretation is likely to be” (p. 49). This interpretation will help provide other researchers the context they need in order to determine the applicability of this study’s findings to other cases.

As a former Agricultural Educator in California, I make no claims I was able to approach this research absent of any biases. In fact, I approach with a cause. I desire an Agricultural Education environment where every student, regardless of who they are, feels welcome and have equal opportunity to succeed. I have often told others, “The benefits of Agricultural Education are too profound to keep them for just the privileged few.” This exposes two inherent biases. First, I am passionate about Agricultural Education and believe in its ability to positively influence students’ lives – I am a product of it, and as a high school educator for nine years, have witnessed its ability to change lives. Second, my role as an educator also made me witness to inequalities. My hope is this research will help give add to existing knowledge in order to address these inequalities. Finally, while I did not interview the teachers at each of the schools, they are all acquaintances of mine, which may have privileged me to access and information other researchers may not have.

Donna Mertens (2010), rather than using Critical Theory as a paradigm, refers to studies where “researchers consciously and explicitly position themselves side by side with the less powerful in a joint effort to bring about social transformation” as being of

the transformative paradigm (p. 21). While I am careful not to explicitly claim I approach this study from a purely transformative stance, elements of my previously identified biases do situate portions of my study, particularly the qualitative portion, in the transformative arena.

Chapter Summary

Chapter three examined the logic behind selecting California as the overarching location for this study. Moreover, the selection of approaching the research from a parallel mixed-methods design was discussed, with the addition of adding multiple cases to examine the Latino experience in Agricultural Education. The chapter examined several options for using existing validated motivation questionnaires, and then made the case for using the PCS and SIMS scales. Moreover, selection of cases was discussed along with the communication with each school site in order to ensure a reliable study. The chapter also examined the focus group protocol, data analysis for both the quantitative and qualitative aspects of the study, as well as how reliability and validity will be ensured.

CHAPTER 4: FINDINGS

Purpose of the Study

The purpose of this study is twofold. First, this study will provide a quantitative analysis of Latino students in Agricultural Education in California at the state level as well as providing more detailed data in four selected cases, and secondly, the study will examine the experience of Latino students in Agricultural Education in their own words. As a mixed methods study, I will attempt to provide meaning to the quantitative data qualitatively. Additionally, this study will help inform further investigation to the Latino experience in other programs in California as well as across the nation. Finally, though Latino students are the population of interest in this research, I hope the results from this study will help inform studies of other historically underrepresented groups in agriculture education, in California and beyond.

Objectives of the Study

The objectives of the research study were to:

1. Describe the demographics of Agricultural Education students in CA over last ten years.
2. Describe the demographics of Agricultural Education students in California by FFA Region.
3. Describe the demographics of California students over the last ten years.
4. Describe the demographics of Agricultural Education teachers in California over the last ten years.

5. Describe the demographics of California secondary teachers over the last ten years.
6. Describe the demographic trends of each agriculture program in the study.
7. Describe the demographic trends of each high school in the study.
8. Describe the demographics of the teachers in each agriculture program in the study.
9. Describe the Perceived Competence and Situated Motivation for students in each of the four agriculture programs in the study.
10. Determine the post high school plans of students by ethnicity at each of the four agriculture programs in the study.
11. Describe the lived experience of Hispanic students in Agricultural Education.

Results by Objective

The data clearly showed California is a state undergoing dramatic demographic changes with regard to the emergence of the Hispanic population as the largest ethnic group in the state.

Objective 1:

Describe the demographics of Agricultural Education students in California over the last ten years.

The data in table 3 clearly show a dramatic shift in the percentage of Hispanic students enrolled in Agricultural Education in California over the last ten years. As recently as 2004, Hispanics accounted for only 37.78% ($f = 24,072$) of students enrolled in Agricultural Education, with non-Hispanics accounting for 62.22% ($f = 39,636$) of the state's enrollment. For the purposes of this study, White, Black/African American, Asian/Pacific Islander, American/Alaska Native, Filipino, or those who identified in more than one category were included in the non-Hispanic category. The White category

made up the vast majority of the non-Hispanic category, and until 2013 was the largest demographic group in California.

Table 3
California Agricultural Education Student Ethnicity by Year

Year	Ethnicity			
	Hispanic		Non-Hispanic	
	<i>f</i>	%	<i>f</i>	%
2004	24,072	37.78	39,636	62.22
2005	25,600	39.50	39,215	60.50
2006	26,528	40.85	38,419	59.15
2007	27,808	41.97	38,447	58.03
2008	29,332	43.53	38,059	56.47
2009	30,718	44.88	37,728	55.12
2010	33,091	46.89	37,487	53.11
2011	34,987	48.98	36,437	51.02
2012	36,887	50.12	36,705	49.88
2013	39,324	51.56	36,938	48.43

Between 2004 and 2013, Hispanic enrollment in California Agricultural Education experienced a steady increase, actually exceeding the non-Hispanic population for the first time in 2012, accounting for 50.12% ($f = 36,887$) of enrollment. By 2013, the Hispanic enrollment reached 51.56% ($f = 39,324$) versus 48.43% ($f = 36,938$) for the non-Hispanic category. Growing by over 13.00% in ten years, the Hispanic population has experienced an average yearly increase of over 1.30%. Figure 7 shows the dramatic transformation over the last ten years.

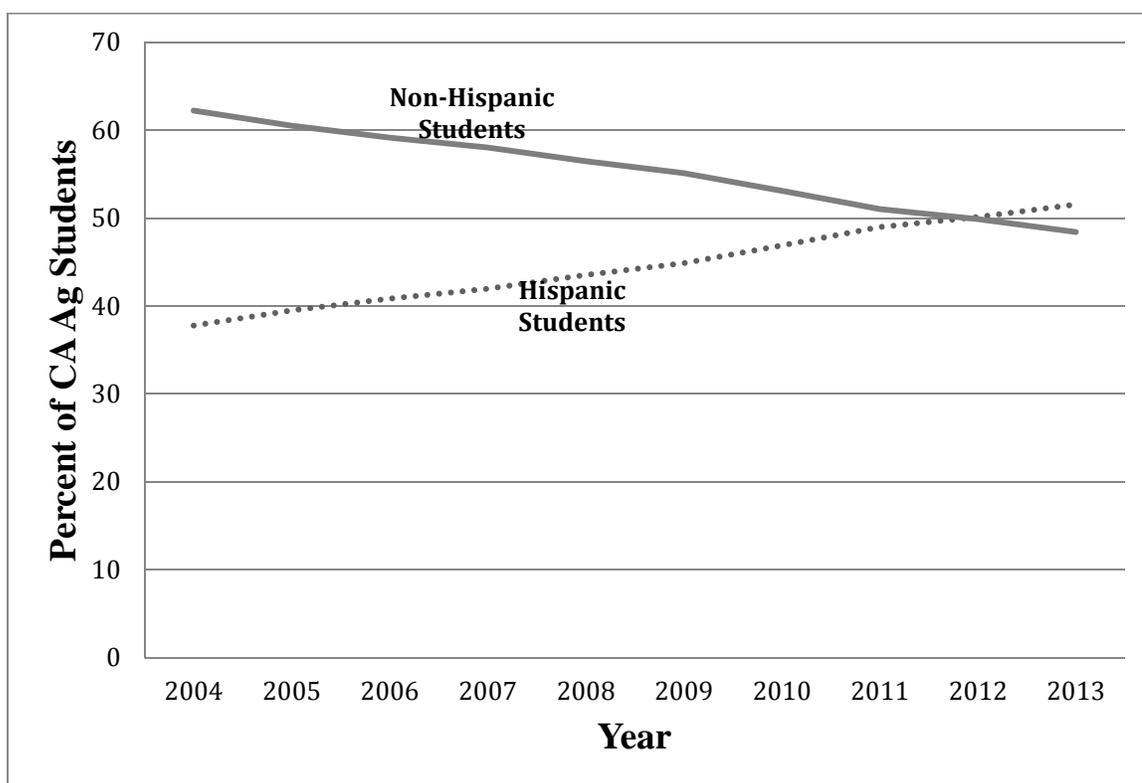


Figure 7. California Agriculture Student trends by Ethnicity

Objective 2:

Describe the demographics of Agricultural Education students in California by FFA Region.

California's Agricultural Education Program is split into six distinct FFA geographic regions (Appendix E). The data from table 4 show each region varies with regard to membership and Hispanic student enrollment. With a Hispanic enrollment of over 62.00% ($f = 8,219$), the Southern Region consists of the largest percentage of Hispanic students, followed by the San Joaquin Region, which consists of 58.00% ($f = 11,201$) Hispanic enrollment. Contrasting the previous regions, the Superior Region and North Coast Region show the smallest percentage of Hispanic students, consisting of just 29.00% ($f = 2,535$) and 30% ($f = 1,503$) respectively. The Central Region and South Coast Region fall between the top and bottom regions with regard to Hispanic

enrollment, with the Central Region comprising of 44.00% ($f = 8,729$) Hispanics and the South Coast Region comprising 57.00% ($f = 4,811$) Hispanics.

Table 4
California Agricultural Education Regional Student Ethnicity 2012-2013 Academic Year

Region	Ethnicity			
	Hispanic		Non-Hispanic	
	<i>f</i>	%	<i>f</i>	%
Central	8,729	44.05	11,086	55.95
North Coast	1,503	30.79	3,377	69.20
San Joaquin	11,201	58.95	7,798	41.04
South Coast	4,811	57.28	3,587	42.71
Southern	8,219	62.68	4,892	37.31
Superior	2,535	29.26	6,127	70.73

Objective 3:

Describe the demographics of California students over the last ten years.

The data in table 5 show the dramatic growth of Hispanic enrollment in California's K-12 school system, with a steady increase from 46.01% ($f = 2,898,106$) in 2004 to 52.71% ($f = 3,282,105$) in 2013. Increasing by 6.70% in ten years, Hispanics have experienced an average annual growth of 0.67%. This growth is about half of the annual growth of Hispanics in Agricultural Education, though the data in table one show Agricultural Education lagged behind the statewide data with regard to the overall percentage of Hispanic students in 2004. In 2010, the data show California's Hispanic students accounted for the largest demographic group, accounting for just over 50.00% ($f = 3,118,404$) of the total student enrollment in the state. Similar to the Agricultural Education enrollment data, Whites accounted for the largest single demographic group contained in the non-Hispanic ethnic group, accounting for just over 54.00% ($f = 1,589,393$) in 2013; African Americans, the next largest demographic group, accounted for just over 13.00% ($f = 394,695$) of the non-Hispanic group.

Table 5
California Statewide Student Ethnicity by Year

Year	Ethnicity			
	Hispanic		Non-Hispanic	
	<i>f</i>	%	<i>f</i>	%
2004	2,898,106	46.01	3,400,677	53.98
2005	2,961,104	46.83	3,361,037	53.16
2006	3,003,716	47.58	3,308,720	52.41
2007	3,026,956	48.15	3,259,987	51.85
2008	3,056,616	48.70	3,218,853	51.29
2009	3,064,614	48.83	3,187,417	50.79
2010	3,118,404	50.36	3,072,021	49.61
2011	3,197,384	51.42	3,019,618	48.57
2012	3,236,942	52.03	2,984,051	47.97
2013	3,282,105	52.71	2,944,884	47.29

Note. California statewide data includes grades K-12, non-Hispanic group contains data from students not reporting ethnicity, > 1.00% of total.

Objective 4:

Describe the demographics of Agricultural Education teachers in California over the last ten years.

White, non-Hispanic teachers account for more than 88% of the non-Hispanic agricultural educators in California. Moreover, table 6 shows the vast difference in non-Hispanic agriculture teachers versus those who identify as Hispanic, with a difference of over 85.00% in 2013. Between 2004 and 2013, the percentage of Hispanic agriculture teachers in California increased by only 0.57%, and over the last ten years the percentage has changed less than one percent in any given year.

Table 6
California Agriculture Teacher Ethnicity by Year

Year	Ethnicity			
	Hispanic		Non-Hispanic	
	<i>f</i>	%	<i>f</i>	%
2004	45	6.69	627	93.30
2005	48	6.88	649	93.11
2006	50	7.19	645	92.80
2007	52	7.38	654	92.89
2008	52	7.29	661	92.70
2009	47	6.82	642	93.17
2010	51	7.35	641	92.49
2011	51	7.29	649	92.71
2012	49	6.83	658	91.77
2013	54	7.26	689	92.73

Objective 5:

Describe the demographics of California Secondary Teachers over the last ten years.

Similar to the demographics of agriculture teachers in California, table 7 shows Hispanics making up a smaller percentage of teachers as compared to the demographics of K-12 students in the state. In fact, Governor Jerry Brown's 2013-14 state budget proposal predicts Hispanics will make up the largest demographic group in California (Sankin, 2014). This fact does not appear to be represented well in California's credentialed teacher ranks, with only 18.07% of teachers identifying as Hispanic and over 66.00% identifying as White. California's teachers do not accurately reflect the state's diverse population nor the trends of its student demographics. Over the last ten years the percentage of Hispanic teachers has grown 3.87% as compared to the 6.70% increase of Hispanic students in the state. When comparing these numbers to agricultural educators in California, the disparity is even more profound, as the number of Hispanic agriculture teachers has remained fairly stagnant over the last ten years. The student population in

California more accurately reflects the state's overall population than the state's credentialed teaching staff.

Table 7
California Statewide Teacher Ethnicity by Year

Year	Ethnicity			
	Hispanic		Non-Hispanic	
	<i>f</i>	%	<i>f</i>	%
2004	43,424	14.20	262,431	85.80
2005	44,388	14.48	262,160	85.52
2006	46,830	15.21	261,034	84.79
2007	48,073	15.57	260,717	84.43
2008	50,051	16.13	260,310	83.87
2009	50,871	16.58	256,016	83.42
2010	50,052	17.37	247,614	82.63
2011	49,570	17.27	237,399	82.72
2012	50,174	17.68	233,662	82.32
2013	51,188	18.07	232,140	81.97

Objective 6:

Describe the demographic trends of each Agriculture Program in the study.

Table 8 shows the comparison of Hispanic students versus non-Hispanic students at each of the agriculture programs in the study. In each of the schools, Hispanics make up a larger percent of the total enrollment than non-Hispanics. Washington High School had the highest percentage of Hispanic students, with 58.91% ($f = 555$). Central had the lowest percentage of Hispanic students, with 55.41% ($f = 471$).

Table 8
Ethnicity and Gender of Students in the Schools in Study

High School	Female		Male		Total		Non-Hispanic					
							Female		Male		Total	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	%	<i>f</i>	%	<i>f</i>	%	
Central High School	382	28.33	365	27.07	747	55.41	<i>f</i> 290	21.51	311	23.07	601	44.58
Georgia High School	428	28.99	420	28.45	848	57.45	331	22.42	297	20.12	628	42.54
Ocean High School	245	29.76	226	27.46	471	57.22	188	22.84	164	19.92	352	42.77
Washington High School	275	29.19	280	29.72	555	58.91	188	19.95	199	21.12	387	41.08

Hispanic

Objective 7:

Describe the demographic trends of each high school in the study.

For each of the agriculture programs in the study, the data show a dramatic growth in the number of Hispanic students. Tables 9-12 show, for each program, consistent growth in percentage of Hispanic students in each program. Ocean, being open for less than ten years, showed the least amount of growth with just under one percent; however, the program's rate of Hispanic enrollment are consistent with the other programs. Figure 8 shows the growth of Hispanic enrollment in each of the programs over time.

Table 9
Central High School Ethnicity by Year

Year	Ethnicity			
	Hispanic		Non-Hispanic	
	<i>f</i>	%	<i>f</i>	%
2004	820	47.37	911	52.63
2005	843	48.36	900	51.64
2006	906	50.47	889	49.53
2007	954	51.96	882	48.04
2008	1004	53.89	859	46.11
2009	962	53.06	851	46.94
2010	918	54.03	781	45.97
2011	809	53.29	709	46.71
2012	731	54.72	605	45.28
2013	747	55.42	601	44.58

Table 10
Georgia High School Ethnicity by Year

Year	Ethnicity			
	Hispanic		Non-Hispanic	
	<i>f</i>	%	<i>f</i>	%
2004	735	42.02	1014	57.98
2005	762	43.12	1005	56.88
2006	774	43.00	1026	57.00
2007	797	44.35	1000	55.65
2008	854	46.26	992	53.74
2009	890	48.29	953	51.71
2010	836	50.42	822	49.58
2011	856	52.04	789	47.96
2012	840	55.89	663	44.11
2013	848	57.45	628	42.55

Table 11
Ocean High School Ethnicity by Year

Year	Ethnicity			
	Hispanic		Non-Hispanic	
	<i>f</i>	%	<i>f</i>	%
2010	123	56.68	94	43.32
2011	239	52.64	215	47.36
2012	384	57.66	282	42.34
2013	471	57.23	352	42.77

Note. Ocean High School opened for the first time for the 2009-2010 school year. The school opened with only 9th graders in year one, 9th and 10th in year two, 9th-11th in year three, and 9th-12th in year four.

Table 12
Washington High School Ethnicity by Year

Year	Ethnicity			
	Hispanic		Non-Hispanic	
	<i>f</i>	%	<i>f</i>	%
2004	761	35.71	1370	64.29
2005	809	37.04	1375	62.96
2006	848	37.67	1403	62.33
2007	910	38.84	1433	61.16
2008	905	39.99	1358	60.01
2009	894	40.75	1300	59.25
2010	621	41.62	871	58.38
2011	585	48.99	609	51.01
2012	548	55.69	436	44.31
2013	555	58.92	387	41.08

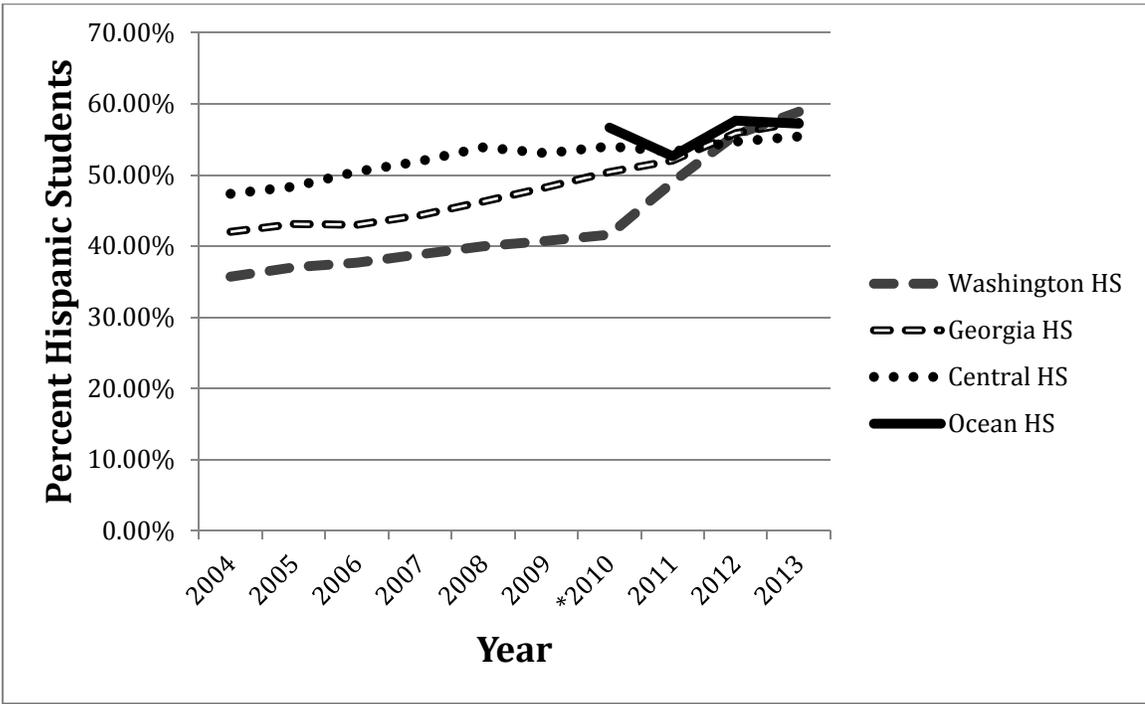


Figure 8. Hispanic student growth percentages by school.

Objective 8:

Describe the demographics of the teachers in each Agriculture Program in the study.

Table 13 clearly shows the lack of Hispanic agriculture teachers at schools in the study. Despite this reality, statewide percentages of Hispanic agriculture teachers are also very low as shown in table 6. The teacher ethnicities in each program, and the totals, provide a snapshot; however should be viewed with caution due to the low numbers of teachers at each program, easily skewing the total percentages.

Table 13
Ethnicity and Gender of Agriculture Teachers in Schools in Study

High School	Female		Male		Total		Non-Hispanic					
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
Washington High School	0	0	0	0	0	0	1	33.34	2	66.67	3	100.00
Georgia High School	0	0	1	25.00	1	25.00	<i>f</i> 2	50.00	1	25.00	3	75.00
Central High School	0	0	0	0	0	0	1	50.00	1	50.00	1	100.00
Ocean High School	0	0	0	0	0	0	1	100.00	0	0	1	100.00

Hispanic

Objective 9:

Describe the Perceived Competence and Situated Motivation for students in each of the four Agriculture Programs in the study.

A Levene's Test for Equality of Variances was conducted, finding equal variances ($p > .05$) for each of the subscales at each of the agriculture programs except the PCS of Georgia High School ($p = .02$); thus, equal variances were not assumed. Table 13 shows the data for each of the scales for each school in the study.

The data showed there was a statistically significant difference between Hispanic ($M = 5.34, SD = 1.45$) and non-Hispanic ($M = 6.06, SD = 1.45$) students for PCS at Georgia High School; $t(228) = -4.19, p < .05$.

For intrinsic motivation, the data showed a statistically significant difference between Hispanic ($M = 4.55, SD = 1.56$) and non-Hispanic ($M = 5.27, SD = 1.45$) students for PCS at Georgia High School; $t(260) = -3.62, p < .05$.

For identified regulation, the data showed a statistically significant difference between Hispanic ($M = 4.50, SD = 1.52$) and non-Hispanic ($M = 5.21, SD = 1.58$) students for PCS at Georgia High School; $t(260) = -3.60, p < .05$.

For external regulation, the data showed a statistically significant difference between Hispanic ($M = 2.62, SD = 1.41$) and non-Hispanic ($M = 2.20, SD = 1.34$) students for PCS at Georgia High School; $t(260) = 3.81, p < .05$.

For amotivation, the data showed a statistically significant difference between Hispanic ($M = 2.78$, $SD = 1.38$) and non-Hispanic ($M = 2.07$, $SD = 1.34$) students for PCS at Georgia High School; $t(260) = 3.82$, $p < .05$.

Table 14
Perceived Competence and Situated Motivation for Schools in Study

	Ethnicity						95% CI	<i>t</i>	<i>df</i>
	Hispanic			non-Hispanic					
	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>			
Central HS									
Perceived	5.28	1.40	38	5.63	1.43	30	-1.05, 0.33	-1.03	66
Intrinsic	4.56	1.65	38	5.00	1.34	30	-1.18, 0.30	-1.19	66
Identified	4.51	1.65	38	5.01	1.28	30	-1.22, 0.24	-1.35	66
External	2.43	1.51	38	2.81	1.63	30	-1.14, 0.39	-0.98	66
Amotivation	2.78	1.38	38	2.44	1.69	30	-0.41, 1.08	0.90	66
Georgia HS									
Perceived	5.34**	1.45	164	6.06**	1.45	98	-1.07, -0.36	-4.19	228
Intrinsic	4.55**	1.56	164	5.27**	1.45	98	-1.09, -0.33	-3.62	260
Identified	4.50**	1.52	164	5.21**	1.58	98	-1.10, -0.32	-3.60	260
External	2.62*	1.41	164	2.20*	1.34	98	0.06, 0.76	3.81	260
Amotivation	2.76**	1.46	164	2.07**	1.34	98	0.07, 0.76	3.82	260
Ocean HS									
Perceived	6.19	0.84	25	6.35	0.94	29	-0.65, 0.33	-0.67	52
Intrinsic	5.96	1.00	25	6.11	0.97	29	-0.69, 0.39	-0.57	52
Identified	5.89	1.27	25	5.89	1.10	29	-0.64, 0.65	0.01	52
External	1.96	1.01	25	1.78	0.96	29	-.036, 0.71	0.66	52
Amotivation	1.85	1.30	25	1.36	0.94	29	-0.13, 1.10	1.60	52
Washington HS									
Perceived	6.39	0.86	32	6.24	1.03	44	-0.30, 0.59	0.66	74
Intrinsic	5.89	1.45	32	5.89	1.23	44	-0.62, 0.61	-0.01	74
Identified	5.78	1.50	32	5.83	1.28	44	-0.69, 0.59	-0.15	74
External	1.77	1.17	32	2.07	1.38	44	-0.89, 0.30	-0.98	74
Amotivation	1.68	1.40	32	1.67	1.40	44	-0.61, 0.63	0.03	74

* $p < .05$, ** $p < .01$

None of the differences in means were found to be statistically significant at the other three schools in the study. It is possible the focus groups may shed light on the

uniqueness of the Georgia High School Program results in comparison to the rest of the cases. The effect sizes of each of the subscales are shown in table 15. The following scales were found to have a medium effect size (Cohen, 1998), perceived competency, $d = .50$; intrinsic motivation, $d = .48$; identified regulation, $d = .46$; and amotivation, $d = .49$. External regulation was found to have a small to medium effect, $d = .31$.

Table 15

Georgia High School Effect Sizes for Significant Findings

Scale	Hispanic	non-Hispanic	d	Interpretation
Perceived Comp.	5.34**	6.06**	.50	Medium
Intrinsic Mot.	4.55**	5.27**	.48	Medium
Identified Reg.	4.50**	5.21**	.46	Medium
External Reg.	2.62*	2.20*	.31	Small - Medium
Amotivation	2.76**	2.07**	.49	Medium

* $p < .05$ **Objective 10:**

Determine the post high school plans of students by ethnicity at each of the four Agriculture Programs in the study.

The data in table 16 show the post high school plans in terms of education and work and students' future career choices. Hispanic students in the Central High School agriculture program indicated their educational preference post high school was to attend a 4-year university, 57.89% ($f = 22$), while only 3.00% ($f = 9$) of non-Hispanic students indicated the same. Moreover, Hispanic students tended to indicate their preference for non-agricultural careers 31.58% ($f = 12$) versus the non-Hispanic students 4.00% ($f = 12$). The career choice with the highest responses for both groups was the unsure column, with 63.16% ($f = 24$) of Hispanics and 43.33% ($f = 13$) of non-Hispanics indicating as such.

Georgia High School Hispanic agriculture program students indicated their preference for attending a 4-year university as well, with 48.78% ($f = 49$), followed by

34.76% ($f = 29$) choosing community college. The highest future career choice among Hispanics was the unsure category 46.34% ($f = 76$), which tended to mirror the selection of non-Hispanic students 41.84% ($f = 41$).

At Ocean High School, more than half of the Hispanic agriculture students indicated they were planning to attend a 4-year university 52.00% ($f = 29$), though non-Hispanic students tended to select this option at a much higher rate 72.41% ($f = 21$). The highest choice for careers was the unsure category for both groups, 52.00% ($f = 13$) for Hispanics and 48.28% ($f = 14$) for non-Hispanics.

The results from Washington High School's agriculture program tended to concur with the other schools. Hispanics and non-Hispanics alike indicated they planned to attend a 4-year university, 46.88% ($f = 15$) and 38.64% ($f = 17$) respectively. More Hispanics than non-Hispanics were unsure of their future career, with 53.12% ($f = 17$) of Hispanics indicating as such, compared to 38.64% ($f = 17$) of non-Hispanics.

as by Ethnicity

Agriculture Programs															
Central HS				Georgia HS				Ocean HS				Washington HS			
Hispanic		Non-Hisp.		Hispanic		Non-Hisp.		Hispanic		Non-Hisp.		Hispanic		Non-Hisp.	
<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
2	5.26	3	10.00	6	3.66	4	4.08	2	8.00	2	6.90	4	12.50	3	6.82
5	13.15	13	43.33	57	34.76	29	29.59	6	24.00	5	17.24	10	31.25	15	34.09
22	57.89	9	3.00	80	48.78	49	5.00	13	52.00	21	72.41	15	46.88	17	38.64
5	13.15	3	10.00	8	4.88	9	9.18	2	8.00	1	3.45	3	9.38	5	11.36
4	10.53	2	6.67	13	7.93	6	6.12	2	8.00	0	0.00	0	0	4	9.09
2	5.26	5	16.67	13	1.21	25	25.51	3	12.00	11	37.93	4	12.50	15	34.09
12	31.58	12	4.00	75	45.73	32	32.65	9	36.00	4	13.79	12	37.50	12	27.27
24	63.16	13	43.33	76	46.34	41	41.84	13	52.00	14	48.28	17	53.12	17	38.64

When comparing the data from all of the cases, it is clear that Hispanic students tended to prefer non-agricultural careers compared to the non-Hispanic group. Moreover, at each of the programs, a large percentage of students indicated they were unsure of their future career choice, perhaps indicating an opportunity for agricultural educators to target this large percentage of their student enrollment as students who could still choose an agriculturally related career. Figure 9 combines the choices of each demographic group for all of the cases and shows the differences between Hispanics and non-Hispanics. While the unsure category is fairly even for both groups, the agriculturally related career choice shows a large divide between groups. Non-Hispanic students appeared to be evenly distributed between the three career choices, while Hispanics tended to avoid choosing an agricultural career. Both groups show a large percentage of undecided students.

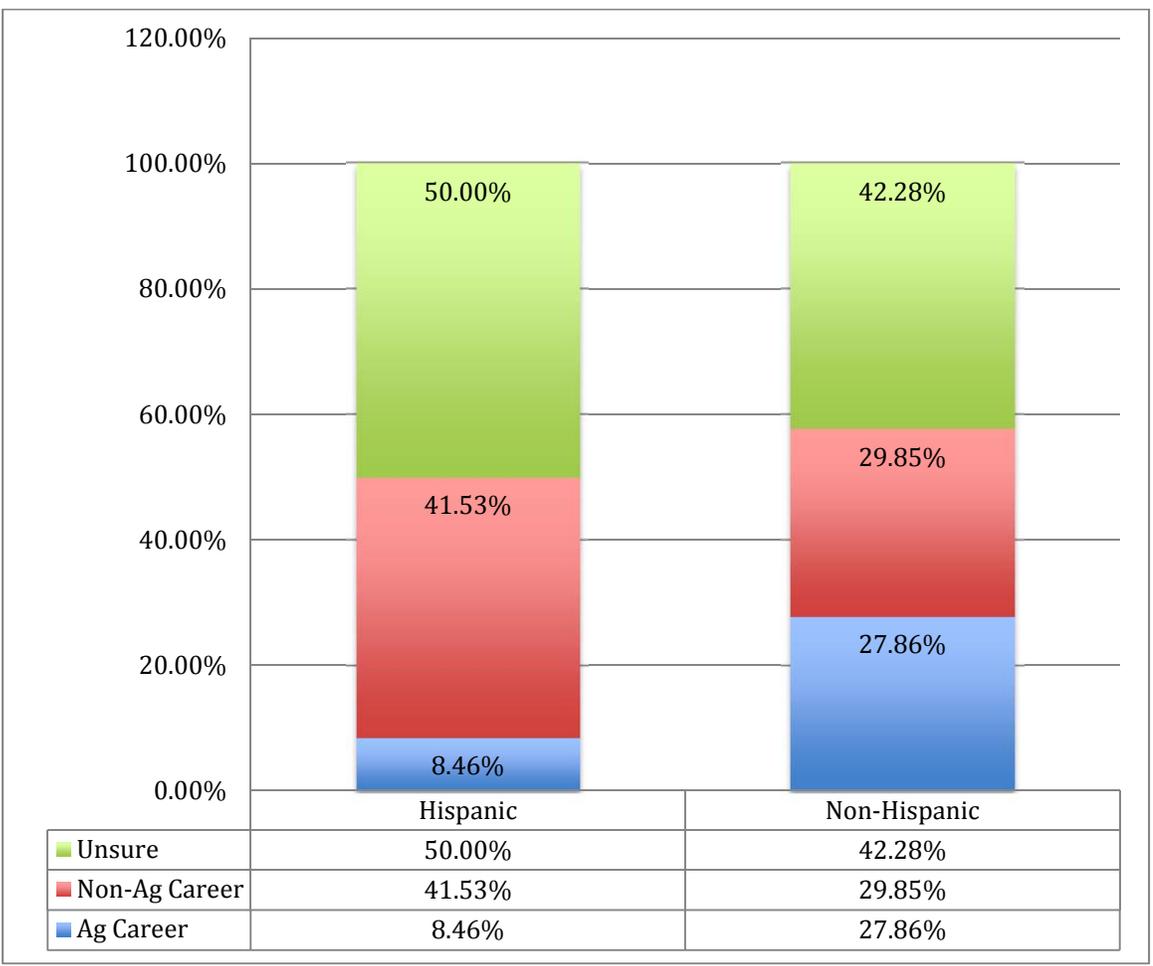


Figure 9. Student career choice by ethnicity.

Objective 11:

Describe the lived experience of Hispanic students in Agricultural Education.

Results by Case

Each of the following names is a pseudonym in order to protect students' identity. All teacher names have been changed to pseudonyms as well. All names are unique to each case, for example "Mr. Smith" in one case is not the same "Mr. Smith" in another case. Names of each student are listed for the cases as well as their year in school. Any other characteristics of each student emerge in their statements. Detailed information and demographics of each student was not provided to me in order to protect their identities.

Central High School Agriculture Program

Ian: male, 11th grade; Thomas: male, 12th grade; Zoe: female, 11th grade; Andrea: female, 12th grade; Enrique: male, 11th grade; Sara: female, 12th grade, and Gabe: male, 12th grade.

Analysis of the data from the Central High School Agriculture Program yielded the following themes: (1) students enrolled and maintained involvement in the agriculture program for a variety of reasons; (2) students' perceptions on Latino involvement were mixed; and, (3) students described many benefits and a few barriers to being involved in the agriculture program.

1. Students enrolled and maintained involvement in the agriculture program for a variety of reasons.

Enrique enrolled in the agriculture program so that he would have access to the welding class. "When we started filling out classes when we were in middle school, I

always wanted to take the shop class so I signed up for ag mech” (Enrique, 122-123).

Enrique also indicated his dad wanted him to take the welding class, as it could open up a career in the future. “My dad wants me to go like. He wants me to attend like the tech schools to learn to weld and to fabricate because isn't that still part of ag? That's why my dad really wants me to do ag” (Enrique, 422-424).

Andrea had other reasons. Growing up in a large city, she didn't know much about agriculture or the program. She credits her counselor for helping her enroll.

For me honestly, I came from a big city. I came from Santa Barbara where agriculture honestly is not very appreciated. You don't see a lot of it unless you go like well into the freeway, then you won't see any type of agriculture, so honestly I had no clue what it was until I moved here. I moved here my freshman year, so I was curious as to what it was, so I took the class, and thank goodness I did because it's done a lot in my life. So, that's really why I took it (Andrea, 127-132).

She continued.

My counselor she was giving me options, and she asked what I wanted to do, and she said, well I want to be a vet. And she said, well I need you to take ag classes. That's where I commenced intro to ag (Andrea, 136-138).

Similar to Andrea, Ian felt the program was interesting to city students especially.

It's almost as if you were to look at most teens today, we're a lot more distant from agriculturally based things. And so, when we come, and we see these classes, then they have more appeal because they're almost novel to us as just as our generation as a whole. It's just looks more, like I said exposure to it because we've grown distant from it. That's probably the biggest contributor to why it seems like fun (Ian, 243-248).

Sara enrolled because she needed a class. “I only took this class because I dropped. I was failing my math class, so I only took this class because I needed it, but I really like it. It's mostly because Ms. Smith has you do something every day, and like, it's new. And, like you learn the little stuff. That's why I like it,” (Sara, 29-31)

Others indicated there wasn't much behind their choice, but they indicated they were glad they made the decision.

When we were filling out in middle school, I never know what it was like I just picked it because like I didn't know what else to pick honestly. I came into freshman year I got Intro to ag, which was exactly this class right here. I kind of liked it because I like being creative, and we were making posters all of the time on like animals. So, I liked it. So sophomore year, I got Applied Animal Science and Biology for ag. I liked both of the classes, so this year I got four because I wanted to stay in ag because it keeps you like involved in activities. That's like what I like (Zoe, 142-149).

Thomas credited his friend with his decision to enroll. "The reason that I joined is a friend who graduated last year recommended. He basically told me that the class is really fun, and that you'll learn lots of new stuff. So, I joined it. I like it's just..."(Thomas, 151-153). Andrea interjects, "It makes you wish that you had done it from freshman year, right"(Andrea, 159). "Yeah, kind of" (Thomas, 161). Andrea continues,

Because I have friends that are like, if they've taken it this year. This is their first year, and they wish that they had taken it from freshman year because they see the older senior students getting their state degree and things like, and they're like, I wish that I could've done that (Andrea, 163-166).

Gabe wished he had enrolled earlier as well. "I do. I wish I would have taken it last year, so that I could be in AP Floral this year because I really like. Like if florists make more money, I would like to be a florist" (Gabe, 168-170).

Andrea indicated her parents support her involvement.

I'm actually the first one in my family, I would say my immediate family at least to be a part of ag, like an ag, any type of ag profession. So they're really actually proud of it, and they kind of boast about it in a way. Like, look at all the success that she's achieving in ag. I feel like they're kind of. It's like something that honorable to them because none of my parents work in dairies. I mean. My step dad works for the city, and my mom works for a school district. So they don't have anything to do with ag, but they really appreciate the fact that I'm passionate about it, and how much I'm involved in it (Andrea, 426-433).

Gabe shared his dad's experience in the industry. "My dad works in the ag industry, but he said that after 20 years that he's kind of getting tired of it. He doesn't really like it anymore" (Gabe, 453-454). Despite this fact, Gabe said his dad is ok with him being in the program.

He's alright with it. He's just like if I want to do something. Like my original plan because like I saw all of the money that could be made in ag, so I was thinking that oh, I want to get the ag business class. Maybe one day, save up the money, buy a farm, buy a dairy. But then, my dad is like, if you really want to get out, you shouldn't major in ag because then that'll keep me here in the valley. So he's like, I don't know. He's encouraging me to get out. So I'm going to probably end up doing something else (Gabe, 462-467).

Zoe indicated her parents were fairly neutral about her enrollment in the program, even joking with her about it.

Yeah, but they don't say anything because like my other class was like, it really wasn't anything. It was just like intro to ag. I was learning about animals and all of that. And then, in Applied Animal Science, I was learning about animals still. Floral like my mom was just like oh, when people have weddings, you could do their flowers, but I don't think she's being for real. I think that she's just playing around with me (Zoe, 471-475).

Ian shared why he participated in the out of class activities, which are required in the program as part of students' course grade.

Kind of didn't want to admit it, but quite frankly the only reason why I participate inside of any activities is because it is strongly recommended if you want to get a decent grade in the class. Yeah because we get activity points for participating. And, like when I go, I actually do enjoy myself, but at the same time, I know that I wouldn't go because it's time out of my self-absorbed day (Ian, 733-737).

2. Students' perceptions on Latino involvement were mixed.

Enrique indicated the rise in the enrollment of Latinos in the agriculture program was simply a matter of more Latino students overall.

I feel like there's been a lot more immigration from Mexico, so a lot of people identify themselves as Hispanic or Mexican or simply becoming the majority

here, and so that's why they've been in the classes because there's just more of them (Enrique, 209-212).

Gabe thought the increase was tied to students' families being involved in the industry. "I think that its maybe because like most of our parents are involved in the ag industry" (Gabe, 214-215). Sara had similar reasoning for the increase in enrollment.

I think that it's just like word of mouth because my grandpa like raises chickens and stuff like that, so like my dad was in ag, so he like doing stuff like the pigs and all of that stuff, and so when I needed a new class it was like oh, what should I take. He was like oh take Floral, that's an ag class. I really liked my ag class. So I guess, just work of mouth. I'm trying to get my brother into 4H because he does some stuff with his chickens. I think that's all it is. And, it's because it's got variety, and it does its own thing. Like we do our own parties, our own dress up days, and I like that (Sara, 217-223).

Ian felt there was a greater awareness among students, which led to an increase in Latino students and encouragement by peers to get involved.

I think that it's really just exposure to ag class. It's just a matter of. The classes are there, and the students are so involved, and they actually enjoy their classes so much they're going to spread the word through word of mouth of course like how you said. It's just that that contributes to why we want to join because it's. It sounds like fun. I mean. If your friends are doing it, and they enjoy it, then you might enjoy it too. It's pretty much a combination of maybe a good sort of peer pressure, but that's what I think of it (Ian, 227-232).

Similarly, Andrea felt the popularity of the program overall was drawing in more students, arguing it had little to do with ethnicity.

Yes, I don't think that it's anything that has to do really with your nationality. I just feel like it's kind of growing in popularity mostly because. I mean. It was just 1969 that women were allowed, so I mean. I just feel like it's just growing in popularity. That's just what's happening. More people are hearing about it. More people are seeing the experiences that people are having with the program, so I kind of feel like they're like oh hey. I want to try it. That is maybe what because I know what our chapter as a whole is growing a lot. So I feel like that's. I don't think that that has anything to do with your nationality (Andrea, 234-241).

While the increase in enrollment of Latinos was viewed as positive, the students did not seem to agree on the level of involvement among Latinos in comparison to other students.

There are more Hispanics in ag classes, but when it actually comes to like participating more or doing SAE projects and like just to the next level, like I've been to like the farm days and stuff. Really the people who are really involved with it are mostly White people. There are not really a lot of Mexicans that are showing animals or like. I'm not saying that none of them do because I have friends who are Mexicans who have shown chickens and stuff, but like beyond on the bigger level, there's a lot of White people (Enrique, 250-256).

Andrea disagreed.

I don't. I honestly feel like I see about. I mean. I do see that there is less of another nationality, but I don't see it between Mexican or Asians. I don't see it that way. I honestly rarely see African-American in enough of it (Andrea, 260-262).

Andrea continued.

Participation wise, I feel like we're pretty equal. I don't see one participating more than another. And, maybe it's because I am involved, and that I do go to a lot of things, so maybe I just see more of it. I don't know if that's what it is (Andrea, 267-269).

Enrique said the ethnicity mix varied by class.

I want to add on to what she said about it being mostly White class, like in ag mech 1 and 2, it was really all races. There wasn't really one dominate one, but when I went to ag mech. 3 it was really a lot of White farm kids who were in there (Enrique, 507-509).

Andrea felt the divide was more of a city versus rural issue.

I think really that that's mainly the problem. I feel like people who are like maybe like grew up or family in ag, or they come from an ag background, and kids like me who come from the city and have no idea what ag was. I feel like that's where the barrier is, or people maybe don't want to join because kids like me, they don't see me as a person who would run for officer team, or they don't see me as the one thriving in FFA. Like I feel like they see that, and they look down on you if you don't have any type of agricultural experience, or if part of your family is in agriculture because I feel like people who are, who have people like my parents

own dairy, blah, blah, blah, those people. They're kind of held up on a pedestal is the way that they somewhat feel (Andrea, 528-537).

Gabe felt ethnicity was part of the equation. "I kind of notice it about Farm Day because like when we went most of the other group leaders are White. Almost all of the presenters are White too" (Gabe, 716-717).

Andrea added that it is sometimes hard to tell a students' ethnicity.

I guess because we don't really know everyone's ethnic background. We don't know for sure what they are. So I guess that it's kind of hard to determine that. For us to see like based off of eyesight, I guess would be hard to say that (Andrea, 749-752).

Most of the students did agree that some perceive agriculture, particularly Latinos in agriculture, negatively.

I don't feel the pressure of me being in ag that they think like that, but I know that I still hear people looking down upon farm workers like field workers, like they say it with like a negative tone, or negative comments about it (Enrique, 278-280).

Ian concurred. "I agree that's definitely something that you hear around. Like I can't really pinpoint what it is that's said, or how it's said, but I feel like it's true" (Ian, 282-283). Enrique tied the comments to Latinos in fieldwork. "I mostly hear, oh the Mexicans are going to work the fields. That's pretty much it" (Enrique, 285).

Some of the students felt the comments were coming from certain groups rather than the perceptions being pervasive. "It's like different ethnicities because it's like, as a Mexican, I know that my dad worked outside, so it's not like something bad when I say working in the fields. I'm like hey good for you. You're working extra hard" (Sara, 292-294). However, Sara describes how some feel who are not familiar with working in the field. "My dad doesn't work it anymore, but like when he was little he'd help my grandpa,

but I feel like it is other than the city it's like oh. Look at them beaners working the field” (Sara, 303-305).

Enrique describes how one side of his family jokes about the issue, not having a background involving manual labor, while the other side would never joke because they had a background involving field labor.

Like on my dad's side we're Mexican. I have family that does that, and they would never say anything like negative about it, but on my mom's side were Portuguese, and hear some of my cousins just try and make a funny joke about it (Enrique, 307-309).

Sara felt some people respected the hard work. “Yeah, but then a lot of adults, I do hear that, like that is hard work. I respect them for doing it” (Sara, 321-322). She went on to explain why she thinks this happens.

I think it's like the uneducated, but like I don't know what nationality our ag teacher is, but she would never say that... Yeah, it's mostly like, I don't know ignorant people who say it, but there are a lot of ignorant people. And then, other people think that it's okay to talk down on it (Sara, 324-331).

Enrique gave his explanation as to what he thinks the intent behind the comments is. “Like, a lot of the Mexicans do work the fields” (Enrique, 333), and “I've never heard anyone say it like really mean to hurt someone's feelings like real hateful. Just trying to be funny” (Enrique, 352-353). Sara agreed, and shared a common slur, “Beaners like that. But it's still annoying” (Sara, 355).

Zoe didn't think people in her family would ever use slurs, as they worked in the industry. “Well, I've never heard anybody say that maybe because like my family like they work in dairies a lot, so I never like really heard that” (Zoe, 361-362). However, Zoe did have an example of racist remarks made against Latinos.

My cousin she has neighbors and they're White, and I guess that they're like really racist. So, they were saying something about the dairy, and then like she yelled at them like, if it wasn't for the Mexicans, which is true. Like, White people wouldn't be working at the dairies. They wouldn't be working in the fields. Like, that's why Mexicans come over here to get the job, which White people wouldn't do (Zoe, 368-373).

Gabe felt many of the offensive comments came from White people.

I notice that it's mostly the White folks. That it's mostly the White people because like me and like most of my Mexican friends, we actually have experience. Like, we've worked there over a summer. So we kind of like respect and appreciate the labor that goes into it since we've experienced it (Gabe, 405-408).

Enrique admitted his cousins made some offensive remarks occasionally. "My cousins own a dairy, and they'd be like, 'Oh yeah. We have the Mexicans working right now. They're down there, and they're milking the cows right now' and stuff" (Enrique, 364-366). Zoe didn't understand where the comments came from, describing the jobs some Latinos do that others will not. "We're here to take it, so why would they talk down on us. Like if it wasn't for Mexicans, like, they wouldn't have the food that they eat, and all of that" (Zoe, 377-379).

Andrea didn't feel there was much people could do about the stereotypes and negative comments.

I feel like it's not something that someone can really control. Like, you can't control what people say. You can't sway people's opinions too much. You can sway them to a certain point, but you can't ultimately make someone believe something that they don't want to believe. So, I mean. I feel like that's something that you can't control, what people think about another nationality. I feel like that's kind of something like. For example if someone says well, hey. She's Mexican. She's going to go and work in her field. Well prove them different. Get your degree and go and do something other than the field. If you work in a Dairy, hey, I own a dairy. It's like just kind of prove people wrong and have that change their opinion instead of suppressing someone else to get them to believe what you want them to believe (Andrea, 386-395).

Students seemed to be mixed on whether the agriculture program was a safe place to talk about race and ethnicity.

I feel like if I'm at like an FFA meeting or like anywhere I am with ag. I still like only talk to like the people who I know, my friends. I feel like that just wouldn't be the appropriate place to talk about my race or something like that (Enrique, 483-485).

Sara didn't feel the agriculture program was the right place to have such discussions.

I don't think that it's that appropriate. I mean. Like, me and Andrea sit together in a desk, but like we're surrounded by a bunch of White people. Like, I've heard plenty and they'll be like talking sh!@. It's like I'm not going to go and start a fight, but it's like I don't know. It's kind of like, you're too stupid to have a fight with. But, it's like, it is mostly like a White class in there (Sara, 487-496).

Gabe described a unique experience, due to his lighter skin.

I don't know. This is kind of involved, but like it's kind of true. My dad was telling me that since I looked White, like I might actually have more job opportunities in the future. I don't know. Yeah, most people do think that I'm White (Gabe, 764-766).

“I didn't know that he was Mexican until I got to know him” (Enrique, 762).

Andrea, as the only student who had been in the program for four years, seemed to have stronger views toward the bonds she had formed in the program and involvement of other students. “I feel like in my ag class, I'm allowed to branch out and to be different, so yeah. I would feel more comfortable speaking about my ethnicity in my ag class or ag functions or whatever or ag related” (Andrea, 580-583). She added,

I've grown close to a lot of these people in ag, and they're my family. Like I go to these events. I'm like Hey Katy. Hey so and so. Even kids who have graduated already, like, these are lifelong friends, and lifelong experiences that you guys have together, so you kind of, you can't sway away from becoming a family. At least, that's my experience that I've had. I've gone to all of these events. I've been involved. So, I feel like by doing that, you start becoming comfortable with all of these people. So you start knowing more people. It just depends on the level of the moment that you put in (Andrea, 817-824).

Enrique disagreed, “I just consider it a class. I don't consider it being like a family” (Enrique, 809). He seems to understand Andrea’s experience however, “you have your judging team, and I understand that you're family with them, it's just that I'm not on a judging team, so I don't associate with them like that. I just go to the meetings” (Enrique, 880-882).

The students also indicated differences in enrollment in certain courses, based on gender. “In ag mech, it's dominated by boys – in Floral is dominated by girls” (Enrique, 615). “That's pretty crazy because I would say that some of the guys make a lot better stuff than the girls do” (Gabe, 636-637).

3. Students described many benefits and a few barriers to being involved in the agriculture program.

Andrea felt the program helped her break out of her shell as a freshman.

I feel like I was a shy kid as a freshman, so kind of going through the ag deal, it kind of showed me to be a really good leader, and to just not be shy. Like, I can actually now be assertive with people, look them in the eye, and just say my thoughts. That's basically my favorite thing about it. I think that it's the teachers because like my Floral Teacher, she's like actually really passionate about ag. She actually cares about it, so that's pretty cool (Andrea, 20-26).

Andrea also discusses some of the skills she has learned through her involvement.

Another thing that I'd like to mention is the skill set that you learn. Like, just being in for example that science, I've learned so much. There's no other class in high school that I'm going to learn how to use a syringe, how to pick a syringe, how to prepare a syringe, registering your rabbit, and things like this that I wouldn't learn in any other classroom setting. So I really like the fact that they offer these opportunities where I can go and learn things that are actually for my profession (Andrea, 40-45).

The other students had similar experiences.

Well, this is my first year of exposure to any type of ag class, and it's Floral. I was pleasantly surprised by it. Honestly, I went in thinking that oh, it's pretty much

just going to be putting flowers in a vase constantly, but we're learning new things, and we're refining our techniques. It gives you. Truthfully I find that as I learn new techniques maybe for wiring or taping or just learning more about this area of agriculture such things, I find that I'm getting more confidence inside of just my own abilities (Ian, 33-38).

Gabe felt the skills he learned in floral would help him get a job. "Oh, it also has a lot of transferable skills because, now that I've taken Floral, when I could probably transfer those skills and work for a florist or get into the floral industry" (Gabe, 47-48). Enrique felt the same about ag mech. "I know that there are people who go from these classes and actually go out and get jobs as welders. So they can actually take those skills and move on with them" (Enrique, 52-54). Sara added, "you can go right out of here out of high school, and get a good job and make more money" (Sara, 679).

The students also indicated they experienced some challenges to being involved in the program, and indicated there were things would change about the agriculture program. Gabe said he had difficulty attending all of the required activities due to his schedule and involvement in spots. "There are a lot of activities that you need to go to... you have to manage your time" (Gabe, 60, 67).

Many of the students felt there was a need to give the program more exposure. Andrea said, "I would make it exposure. It definitely needs a lot more exposure" (Andrea, 912). She adds, "Not many people know what it's about. They hear about it, but don't really know like hey is this what it's about. So, it's gaining popularity, but I feel like it should have way more than what it does now" (Andrea, 917-920). Ian agreed. "It definitely is exposure, but I would like do something like, oh, just have the ag kids go in and present to other students" (Ian, 922-924). Additionally, Ian indicated the parents needed to be informed better as well, particularly what the program is really about.

“Parents as well are also greatly misinformed. That probably goes back to past stigmas against farm workers or things like that. Just a lot of things can contribute and stack against it” (Ian, 942-944).

Sara indicated her desire to have a Hispanic agriculture teacher. I'd want a Mexican teacher. Like Ms. Smith is pretty cool, but I think that it'd be cool if we had like a lot more Mexican teachers... I mean. I don't feel uncomfortable with the White teacher, but I think that it'd be cooler having a Mexican agriculture teacher to like go in there and like because then. That goes back to like the prejudice thing to go in there and be like ‘Excuse me. Be quiet! Let me educate you.’ I think that would be cool. I think that that would be a good thing. It would be definitely like a relatable thing. I feel that students could, if the ag teacher was Mexican, and they did have success in the ag program, and they were like hey. You know guys that this is what I did. They would be like ‘Hey. That's my race. I could do that too’ (Sara, 969-970, 975-983).

Gabe indicated his desire for more class offerings. “For the past two years, I've been trying to get into as business, but this is my first year, and I was only able to get in Floral” (Gabe, 95-96). Arguing that lack of funding is the reason for the reduced number of classes, Enrique shared how the Governor had proposed cutting a major source of funds for agriculture programs in the state. “They recently tried to cut the funding all together from ag education, Governor Brown did” (Enrique, 1016-1017). Andrea felt this would hit Hispanics disproportionately, as the cuts could lead to increased costs to be enrolled. She indicated students already pay shop and floral fees to help offset costs. “Maybe that's a factor the fact that most, I'm not trying to be prejudice to my own ethnicity, but a lot of lower-income are in the Mexican race” (Andrea, 1019-1020).

Georgia High School Agriculture Program

Diego: male, 11th grade; Adrian: male, 11th grade; Javier: male, 11th grade; Ricky: male, 12th grade; Rosa: female, 12th grade; and Lucas: male, 11th grade.

Analysis of the data from the Georgia High School Agriculture Program yielded the following themes: (1) students enrolled in the agriculture program and maintained involvement for a variety of reasons, though they did face challenges; (2) students experienced challenges in the program specific to their ethnicity; (3) as students who live in the city, the participants felt they had fewer opportunities than the rural/country kids; and, (4) students described the involvement of Latinos in the agriculture program as fairly equitable, though they indicated some barriers.

1. Students enrolled in the agriculture program and maintained involvement for a variety of reasons, though they did face challenges.

Students described their experience in the agriculture program as positive and shared examples of why they chose to enroll and maintain their involvement. Ricky, a junior in the program describes the courses as being rewarding. “Well, rewarding because you do stuff and you know that you did it yourself and it makes you feel good... Like planting flowers. We are planting flowers and now just going in there and seeing all the blooms” (Ricky, 13-14, 18-19). Rosa enrolled in the program due to an interest in an agriculturally related career.

Freshmen year I wanted to be a vet, so I joined animal science, and I just liked the experience in that class. The next year I wanted to take vet science, but I did not get in it, so I took floral and I was interested in that. And then I came here to plants and I’m interested in that, but there’s not a specific thing besides that... like being a vet, that got me into it, but now it’s not about being a vet, I want to be something else. But I’m still in the program (Rosa, 1025-1029).

Others in the group indicated how their family informed them about the program.

I got into the ag program because I had an older sister that went to this school and she was in it. She told me the teachers were really cool and she told me they have an actual ag mech class and I asked her what’s that and she goes it’s like your average metal shop or wood shop, but it’s all put together. You learn a little bit of

everything, and it is all integrated with ag. Like everything, you do can relate to ag. So that was really intriguing to me, so when it came to picking my classes, I looked for that specific class and I made sure it was my first pick because I wanted to learn more about it and see if I could turn it into something that I could make into a career (Diego, 1040-1046).

Javier had a similar experience. “That is the same reason I got into ag too, because of my brother, what he told me about the same ag mech program too. That sounded cool, something I like to do and he said the teachers were real cool so I said let me try this out” (Javier, 1048-1050). Lucas described the program’s Ag Ambassador visit to his middle school, a group that helps inform and recruit new students into the agriculture program.

For me, I did not have much to go on. All I had was in eighth grade the Ag ambassadors came and did their presentation on FFA and that got me thinking about it. I just put it on my schedule out of curiosity and from there I just loved it and continued on (Lucas, 1052-1054).

Rosa indicated she was just placed in an ag class, but decided to stay, “they just put me on there and I was like whatever, I will try it out. It is my first year in ag, so I did not know about ag until this year, but I like it” (Rosa, 1093-1094).

Adrian wished he had enrolled as a freshman, as he originally had a negative perception of the agriculture program.

I think what would involve a lot more people know what really happens. In eighth grade, I hung out with what you might call the popular kids, so when this program called Future Farmers of America came they were like you want to be a farmer? That is stupid. I’m like yeah, I’m too cool for that... but once I started high school and my friend was like oh yeah, we’re building this and that, I was like how come they didn’t tell me about that. I would have chose it if I would have known what they were doing to begin with. Now that I’m a junior and I’m going to turn into senior year, a lot of my friends are like dang, I wish I would have got involved in the FFA program earlier if I would have known that you guys get to build stuff and you get to work with your hands (Adrian, 1064-1072).

The students went on to they indicate several things they enjoyed about their participation in the program.

I think what's really good about the agriculture program is a lot of students have a huge problem with what we get taught in school, and agriculture is more direct to what you want to do. I wanted to be a mechanical engineer, so freshman year my class was intro to industrial process, but then it didn't really touch on the things that I want to do, so then my friend was in agriculture and he told me about it, and he was like yeah, we weld, we do this, and we do wood project. It's more direct to what I want to do, and at the same time since he's an average person and not really involved in country stuff, I feel like I had to because it represented what I wanted to do (Adrian, 1031-1037).

Coming from a big city, Diego was amazed by the knowledge he learned about agriculture and the opportunity to interact with a variety of students from different backgrounds.

...meeting new people, learning new things. When I moved here, I didn't know corn grew... I did not know that walnuts came from trees, and I met all these people and a lot of my friends are farmers. I have been able to learn about how things work with farming and how important it is to our country. It is basically the backbone of the United States because everybody needs food. Agriculture is not just about food either. There is a horticulture thing and I think the cool thing about ag here in this program, that we... it is not just about one thing. There is a little bit for everybody (Diego, 25-31).

For Adrian, his desire to impress his father influenced his participation.

For me it's more of learning more and expanding what you can do, because just like how I was raised, I felt like I had to impress my dad more, so I felt like I had to do more with my hands so that he'd respect me more as a man. We have ag mech and since I want to be an engineer, I feel like it is something that actually relates to what I want to do. It takes my mind off of over thinking and for like a split second, it's just what I have in front of me, whether it's a flower or whether I have to weld, and I just like how I can use my hands (Adrian, 42-47).

Javier felt the agriculture teachers helped make the program rewarding as a student.

I think that probably the most rewarding experience is just the teachers in all honesty, because it seems to me that some people, they love to learn, they love to

go to school to learn, but a lot of people aren't like that. They need to be motivated, and the ag teachers, as far as I can tell, seem to be some of the only teachers that I have ever met that actually have the ability to motivate their students to want to learn (Javier, 49-53).

Others agreed.

It takes a special kind of person to be an ag teacher. Not just anyone can be an ag teacher because they really do connect with you with teaching you and finding out what kind of person you are and what you are really about; and, you know, being just real with you (Diego, 62-64).

“I think ag teachers have a better sense of humor than most teachers; which is really cool because a lot of students like to joke around and everything, it's pretty cool” (Adrian, 69-71). Emma felt her ag teacher went above and beyond for her. “Because you can talk to any teacher and they can help you, but not on the level that ag teachers do” (Emma, 73-74).

When asked about their connection to the agriculture program and a possible career in the field, Ricky indicated, “I do not want to do ag actually. I am here for the experience, but I am also here because I need an extra class. But I'm also here because I want to be in AG, or else I wouldn't have taken it” (Ricky, 501-503). Some indicated how their parents and family felt about choosing agriculture as a career versus involvement in the program.

I think my mom and my stepdad, they are more open about what my career choices are and what I want to do, because they understand that here in the valley, ag is a big thing and if I want to succeed, ag is a good option. But my family in LA, they're not as understanding, so when they think of that they're like well, why do you want to do that? Aren't you just going to be like stereotyped and what is so fun about raising this, or owning this, it is boring. But to me, it's fun, so it's not so much negative because I just brush the comments away, but it's more of a they don't know kind of thing. If they were to live up here, they would understand why ag is a good career choice (Diego, 507-514).

Rosa shared the concern some parents have, particularly those who worked in agricultural labor, about their kids going into the industry.

I can see a parent's side though, just to be like oh, I came here from wherever and I worked in the fields, and I want you to have a better career. And they're thinking go to college, go do this and this and this. But ag is a big industry, and you do make a lot of money, and it is a really good choice. So, I can see a parent's side, but they also have to see, oh my kid wants to do this and it is a good field. They are not just going to be out in the fields working, they could probably have a higher up job (Rosa, 516-521).

Javier agreed. "Yeah, what they want is for something better than what they did" (Javier, 523). Lucas indicated his parents were never involved in agriculture, and this may have affected their feelings toward it.

Personally, I have had no past generations that have been really involved in agriculture, but I've never had the problem of my parents not enjoying FFA. It seems that... Because my parents are both cops, and my dad is actually been pushing for me to get a job in the field of agronomy, but I want to go into psychology and he's been pushing me away from that because he knows that it is difficult to get a job in the field in psychology unless you have a masters. But luckily I like school, so I believe I can do it, but I've never had a problem with them pushing me away from agriculture. I know that in California, agriculture is a huge industry (Lucas, 529-535).

Given the others' comments, Diego clarifies his parents' neutral stance toward a career in agriculture.

I think more from my parents', they are neutral. They do not... they care, but at the same time they do not. They know I want to go law enforcement, because both of them are law enforcement, but they also keep their eyes open and look at the big picture of ag and of both career choices that I have in mind. My step dad, he grew around ag, he worked in the fields and everything when he was not working at the prison. Even now, he still... He is not really in ag, but he is always around orchards. He's always around all these things because what his job does, is they hide out there and they wait for drug drop offs or whatever, and he says he's always like the thought of owning a farm, or being able to walk around the trees knowing that you did that, you raised this, and it's going to feed people. So he always told me, if you want to go into ag, if you want to go to college for it, I'll pay for it. Do not worry when no one else tells you it is a good thing to get in, because he personally knows a bunch of those farmers because they have to get

permission to be on their land. They all tell him that it is a good thing even to just retire into; just buy an already raised crop and starting from there, and the rest of your life, your whole retirement fund (Diego, 537-549).

Despite their involvement and overall positivity toward the agriculture program, the students shared some of the challenges and misconceptions surrounding their involvement.

...when they think of ag, they automatically think of farming. They do not think that there is animal science classes... they do not think there are classes where you build things. They automatically think of farming. I think that is mostly because of the name. It is called the Future Farmers of America. I know they have tried to emphasize it is just FFA, but when you think of FFA, you automatically think of farms (Adrian, 1078-1082).

Rosa shared how some joked about her being in the program. "...people leaving jokes, oh what are you going to do, raise a pig?" (Rosa, 1084). Diego and Lucas had similar experiences with their friends. "I have friends that are skaters and they are thinking that we are always over hear talking about how to grow corn or something. So, there's a stereotype that we're learning about" (Diego, 708-709), and "My friends, they will definitely have a good laugh at me whenever I say how busy I was that weekend doing like a contest for a team. But then I know how to laugh at myself, so I laugh with them, so it's never been a problem" (Lucas, 725-727).

Adrian didn't see the jokes or misconceptions as a big problem, but did indicate the differences in what outsiders think of him as an agriculture program student.

It's not really a problem... it's more of like a joke... I mean, it is not a big problem. I think it is kind of funny because they don't really know what's going on in these classes. But, then I have my friends that are in the ag industry, but aren't in ag classes and they think we're learning more than we actually are, so when I go hang out with them on their farm, or whatever, they think I know what I'm doing, when I really don't. So it is like if you're a city kid, you think I'm learning lower than what I actually am. If you are a country kid, you think I am learning a lot more than what I actually am (Adrian, 713-719).

In addition to some of the negative agriculture stereotypes, Ricky indicated he had issues with the activity points, which are a graded portion of each agriculture class and based on the students' participation in outside of class activities. "Activity points. I can never get those. I will get them in the first semester, but not the second semester. I do not know why... Because it is part of my grade, and I am like I want to, but I am just lazy. I do not feel like I... well, I can do it, but I guess I choose not to" (Ricky, 80-86).

2. Students experienced challenges in the program specific to their ethnicity.

Diego indicated most people have a perception of a particular race when thinking about agriculture. "When people think of ag or whatever, they think of a white person who is a farmer, whose parents are rich and they grew up around the farm growing some kind of commodity or something" (Diego, 100-102). Adrian felt the ethnicity perceptions are specific to certain courses. "I see that more in like ag mech, but not like... because when I imagine ag mech, I see white people, but when I see ornamental horticulture, I just see it different because it involves different things than like mechanical stuff or like farm things, and it is more like planting" (Adrian, 104-106).

Some students were unsure of where the racial and ethnic perceptions of people in agriculture come from, while others had ideas. "I really do not know where it comes from because I know a lot of Mexicans that do a lot of farm work. I really do not know where it comes from, but that is just what people see" (Javier, 141-142). Some suggested the stereotype begins with movies, television, and magazines.

I think it comes more from like when you are watching movies and they have those people portrayed like... When you see Hispanics working, it is in the field and they are like picking fruit, and then you see them and it is like they own a farm; so I think that's where a lot of stuff comes from. But we choose to go on it

too, because we know there's people out there and there's variety and all that. It is like very mixed and all, but we take it from movies too... it helps our perception (Rosa, 144-149).

Others agreed with Rosa. "I feel like movies make Hispanics look almost... like not look negative, but like sort of negative; and when you see a white person that looks like a nice life to have, you know" (Ricky, 151-153). "Yeah, I definitely think TV has a big impact on the way people see an ag student or just anybody in agriculture. You see during the Superbowl, the 'So God made a farmer' thing, because the farmer was white" (Adrian, 155-157). "Yeah, all of them were white when in reality, when you go to the fields, the people that you see working all the time are Mexicans, it is like you don't get the credit that you kind of deserve" (Javier, 159-161). Adrian shared how this perception is inaccurate and how Latinos play an important role in the industry.

...since my dad is a farm labor contractor, I have been to a lot of orchards. I've seen tons of crops, and before I never really knew what it was, but now since I was [in the program and stuff like that, I know the basic knowledge of stuff, and a lot of the times, the owners don't necessarily know as much of what they're doing as the people actually working the fields. A lot of the times, I've met owners who have... like the right hand man is a Mexican, because that's usually who you have to deal with for labor. A lot of the times, it's not even the owner taking care of the farm (Adrian, 170-176).

The students continued their discussion, adding examples of other misconceptions in the media. "Even looking at pictures, I see white people" (Ricky, 191), and "In the ag newspaper that my dad gets, a lot of the pictures, they're all white farmers; they're all white owners. I have never seen a picture of the actual workers" (Adrian, 193-194). Even the FFA magazine didn't seem to reflect diversity well, "The actual FFA magazines that they put out, not many of them have other races. It is mostly white. Very rarely do you see a Hispanic or a black person in there. Which, I think is wrong, but there is not really

anything we can do about it” (Javier, 200-202), though Adrian clarified and indicated he didn’t feel the lack of diversity was intentional, “I don’t think it’s on purpose or anything, I think it’s subconscious that’s what comes out” (Adrian, 204-205).

Despite all of the misconceptions, Ricky indicated that he really didn’t care, and wished that he could just be white.

I do not really... it sounds mean, but I do not really care. You can put whoever you want on there, but I don’t know, I just don’t care who’s on there. It does not matter. It sounds stupid, but I would, if I could, be white. I’ll tell my family, like I’m white... don’t... I love being Mexican too, but I am like, I am white, and they get mad (Ricky, 207-210).

Javier added, “I think the average white family would be perfect” (Javier, 212). Adrian disagreed. “I do not think there is a race problem. I just feel like the racial stigmas we put in our own heads, we just feel like that is what is happening, when in reality it is not. It’s just subconscious” and “you were actually excluding yourself thinking it was a race problem when in reality you just felt left out, and you thought it was because of your race, when in reality it probably was not” (Adrian, 320-322...337-341). Rosa added, “I know how I feel about myself; I know what my identity is. You just learn to overcome it and you are like whatever, that is their opinion. I have my own view of what I am, or what my race is, or what my gender is” (Rosa, 346-350).

Diego saw it a bit differently, “I can put down a better weld; I can raise a better animal; and for the most part, that puts all the comments and thoughts down of oh, he does not know what he is doing because he is Mexican or he is not from here” (Diego, 361-366). Similar to Diego, Javier and Adrian indicated the negative stereotypes made them push harder. “It almost makes you want to work harder” (Javier, 368). “Yeah, if we

feel that there is a race problem, and then it motivates us to be above it, but if we feel it is not really there, then we just go about our life” (Adrian, 378-379).

Lucas didn't seem to experience the issues that the others did.

Maybe it is just because all the classes I have taken for FFA have mostly been animal science. I took vet science last year, which is as high as I could have gone. So, I do not feel like I have ever had to deal with any of this. I believe that... at the same time, I have never noticed it, but I kind of agree with Ricky that maybe I'm not really looking for it. I just push it to the side. It's not the main thing, I don't think it's hindering me in any way...I do not see a race problem here because our school is so racially diverse. There are more Mexicans here than there are white people. That is why I do not ever think there is a race problem here (Lucas, 372-383).

Beyond the issues of ethnicity and race, the students touched on gender issues and sexual orientation as well. “I also feel like how we think that there is a race problem, has to do more with genders too. Classes that have more guys like ag mech. That is where we feel there is somewhat of a race problem” (Adrian, 393-395). “When you are a girl in ag mech, they are like why are you here; you are not supposed to do this” (Javier, 397-398). Ricky agreed and shared his experience, “It is almost like being gay. They feel like because you are, you are not able to do this” (Ricky, 400-401). Ricky went on to indicate he felt very accepted in the agriculture program, despite his sexual orientation. Rosa agreed, explaining, “we are also in a generation where everything is so accepting. There are more people wanting to come out...then people are more accepting, like yeah, you can do that, you can be that” (Rosa, 446-448).

Regarding all of the issues, Adrian proposes the root of the problem may be how people joke about all of these issues rather than facing them head on. “I think what one of the problems is that people do not take the situation seriously enough. Like you have too

many kids that joke around about it, or teachers that... like it is not a real problem”

(Adrian, 590-592). Diego agrees.

Like in ag mech, especially, all the white boys in our class joke around about it like it's nothing. I feel like the Mexicans that have grown into this school and into the ag program, they feel like it is not anything big. But people like us, we just come into it, we're like how are they joking about this? It is not really a joke. I do not think it is that funny (Diego, 598-601).

The group continued to discuss how many of the issues discussed are focused in the agricultural mechanics courses, particularly the advanced courses.

I think it really depends on what kind of a class you are in, because if you are in an ag mech class, you are going to be around more country boys that grew up on a farm and they are a little bit more racist than the typical girl in an agronomy class. Or any other kid that might be in that class. Because that class doesn't... I am not talking down on the class, but that class does not do as much as the ag mech class does, or in terms of money-wise, so you have more of the richer kids in the ag mech classes who are more racist than in the agronomy classes (Adrian, 636-641).

Rosa thought the problem was the concentration of racist students in one class.

I can see how in ag mech there are the individuals who come up with these racial remarks, and then if you were to see who their parents were, you could probably see that same racist in their parents. Then I believe that when you take that pool of just ag mech students and then you disburse them to other classrooms as the question was saying, I do not necessarily think they would be exposed more, but it would be more disbursed, so you will not really see it as much in other classrooms. Instead of having all the so-called racists in one class, they would be in several different classes. So it would be smaller amounts of racism in each class (Rosa, 670-676).

Despite his experiences in agricultural mechanics, Diego didn't blame the agriculture teacher.

In ag mech, it is really hard for the teacher to be around for much of anything because it's a huge shop, they're always running around, they're busy doing things. So you can't really depend on the teacher to fix the problem. You have to either ignore it, or let the teacher know and he deals with it when he can. Or deal with the problem yourself. You do not have to physically fight a person and tell them what they are doing is wrong, but you can let them know what you are saying is wrong. You can make them feel really bad about it, and if they stop they

stop. If they do not, they do not. I think if a teacher was around, I think they would put a stop to what's going on, because I'm pretty sure these teachers want everyone to feel just as comfortable as each other (Diego, 693-700).

Students went on to share their experiences with involvement in FFA and SAE activities outside of class as a Latino.

I know with showing animals at the fair, which could be an SAE project, you go there and it is weird being a Mexican. You just... you look... you just stand there and you are the only brown person out of like thousands of white people at the fair. And they look at you and they're like what the heck are you doing here (Rosa, 780-783).

Diego had a personal experience at the fair that left him unwilling to show again in the future.

I know when I was there, I was taking my birds out of their cage and a lady thought I was just some person walking through trying to steal birds. They called security, and they are asking to see my ID and everything. I was like, are you serious? I had to wait for one of my ag teachers to come verify that I am who I am. Which I thought was really ridiculous and it really pissed me off, so I just left. That is why I chose to not partake in this year's fair, so that kind of thing had an impact on what I want to do in ag (Diego, 787-792).

Lucas had a different experience and shared that he always felt accepted in the activities that he participated in.

I have been on several teams caught in agronomy parliamentary procedure, just citrus, too many to really name, and I was probably one of the only Hispanics on every single one of those teams. I know parliamentary procedure, I was the only one, and everyone else was white. But at the same time, I never really felt like I wasn't accepted, because these were also people that I had been with since freshmen year. I feel like freshmen year, no one's really looking at race specifically, but everyone is looking to form a group to be comfortable... to fit in. so, when you're with those people from freshman year to senior year and you've been on this team every single year, I never felt excluded from the group (Lucas, 800-807).

Adrian went on to share his desire to see a more diverse FFA Officer team.

We need more diversity on these officer teams and on the state level, on the national level because since I have been in high school, I have not seen a single

national officer that was not white. Which was kind of negative for me, but I know for other people it's like oh, it's no big deal because they probably know what they're doing. But for me, I feel uncomfortable, but I don't really care because I like ag, so I'm going to do what I want to do. But for other kids, I can see how it would be something that put them down and made them not want to run because they believe that they would lose just because of the color of their skin (Adrian, 971-977).

Rosa felt the perception of the officer team being all white and country makes it difficult for different people to consider running.

I think it has to do with the image that you first get of the FFA. For example, the FFA officers, they are all white because they are the most devoted to it. So it makes sense why they would run, but at the same time, if you had a couple of Hispanics or maybe someone that was African American up there... and they talked... Like average... just like oh hey, you should think about like doing pigs, it'd be a dope thing to do... if you made it not... if you made it simple, if weren't like oh you have to be really country, or actually know what you're doing to be in this program; and if they just opened the image (Rosa, 901-907).

When asked what the agriculture teachers could do to address some of the concerns shared, Adrian said, "I feel like there is nothing the teachers specifically could do... it is mostly the individuals themselves. They have to motivate themselves; they have to look past all the racial stereotypes. They just have to do it themselves" (Adrian, 881-883). Diego agreed, but felt his success meant something more due to the challenges he faced, "...as a Hispanic in the ag program, it is a little bit harder, but to me, I come out on top because it was harder for me. So to me it's more of an accomplishment because it wasn't as easy" (Diego, 124-126).

Despite the negative perceptions, the students were optimistic. "I think that with each new incoming generation, we are slowly shifting" (Rosa, 236). "You are right because our generation is way more accepting than the other generation was" (Ricky, 238-239).

3. As students who live in the city, the students felt they had fewer opportunities than the rural/country kids.

Adrian described city students as the average Joes in the program.

It is more of an average Joe and country person type of deal. For example, you could be any color, but if you are not used to doing agriculture or being on a farm or raising an animal, you are not motivated. You are not engaged in the agriculture program just because the average Joe is not necessarily targeted. It is more of the country folk, or the people that are involved (Adrian, 834-838).

Lucas felt the differences in opportunities were based on popularity.

... involvement goes with social class at school, because if you are popular, you are not going to be made fun of. But if you're down there, you would be made fun of. People are going to think it is dumb, but you know how being popular, when one person does it, everyone else does it. That is my feel (Lucas, 848-851).

Javier credited most of the popularity some students enjoy to the fact they have known each other for so long.

I think the FFA program, it is like you're coming into a family that you're not used to and you feel that you wouldn't fit into, so then a lot of the country people in this town, they've known each other their whole life. They have been raised... they grew up together... they grew up on farms and stuff like that. So then, you feel like you are walking into family that you do not think you will fit into (Javier, 870-874).

Diego said the country students had more opportunities due to the resources of their families.

I think the opportunity things... I think the people whose parents' are farmers, generally do have more opportunities because they have the money to back up certain SAE projects, the time, and the space because most of them live out in the country. I am not saying that it is not fair, because you are supposed to deal with the cards you are dealt with (Diego, 121-123).

Adrian felt the advantage rural students had was real, but part of it may students internalizing the situation.

It's like sometimes you just get... it's an advantage to them because they grew up their whole life being a part of agriculture, and then all of a sudden you just come in and...It is not necessarily a big factor, but sometimes it does... you feel like it does exclude you from certain things, or from getting certain opportunities. But I think it's just something that... it's in the back of our heads and maybe it's not necessarily what we think it is (Adrian, 108-114).

Ricky felt those on farms, the owners, had more money which could help support some students in the program, but shared he didn't have those same opportunities.

Those who live on a farm are the ones who do have farms, but if you are working for another company, you are really not making as much money as like those who own a farm; because my grandpa does not make a lot of money. We do not live out on the farm with a big piece of land. We live here in the city with a small house (Ricky, 128-131).

Diego indicated the perception that country kids had an advantage made him want to work harder.

I think students do have a big part because you have these kids from the country and they think they are better than you and so you have to prove yourself. That is how I deal with it, I just prove myself. I prove that I can do this job better than you (Diego, 361-363).

Rosa agreed, and shared how one of her country friends approaches it.

I can see where they're coming from, where they say they want to do better, because I have friends who are in ag and they grew up on farms, and I hang out with this girl in my fifth period, and she'll be like yeah, these kids, they don't know what they're doing. And she grew up on a farm all her life, so of course she's going to say that. So, I see where they're saying they want to go above it, but I'm just like, calm down. She is like making it sound like she is better, and I'm like well, you've had your whole life. These kids could probably be as good as you and you're just like no, I grew up on a farm, I know what I'm doing (Rosa, 385-391).

Ricky felt the country versus city divide was bigger certain courses.

I feel like the classes that we have, like the ornamental horticulture, those are... I feel like it's beginning ag type of stuff, and then ag mech is like that hard core type of ag where all these country kids are in there so, I feel like that's why you guys say you see it more, because that's like the higher up ag (Ricky, 652-655).

Diego agreed.

Yeah, and they are straight from... they grew up doing that stuff, so I feel like that is... they have the mental image or whatever you guys are seeing. I feel like you are going to get that more in that class, because those kids grew up doing it. And then our class is just like oh yeah, let's go plant flowers, we're beginning ag... don't get me wrong, I like the class, I'm just saying they have a class that has more kids who have done it for a long time (Diego, 659-633).

Adrian had two classes where he could see a difference based on the concentration of country kids.

Yeah, I have both classes. I have ag mech first and then I have ornamental horticulture second, so sometimes it is like a major shift from like how you feel that you are looked at. In ag mech, I might feel like I have to prove myself, while in ornamental horticulture, it is just whatever (Adrian, 665-668).

When asked why more Latino students don't run for chapter leadership positions, students indicated they felt they had a slim chance due to the "country kids" knowing each other prior to being the agriculture program. According to Rosa, "it is a family. You have to think about it that way. You won't get as much votes because they don't know who you are because you're coming into a system where they've all been raised... they all know each other" (Rosa, 915-917). Rosa continued.

I know there is like eight kids that I knew and they are all cousins, they are all related. It is weird because you come into the ag program and you might be the only one; and you are competing with these kids who have known each other their entire lives because they're related, or they grew up with each other because their parents all do the same thing. It is hard to be able to run because these kids are the more popular kids, so they are automatically going to want to vote for the more popular kid because they think they are capable of more and they create a better image for the FFA (Rosa, 924-930).

Ocean High School Agriculture Program

Ethan: male, 12th grade; David: male, 12th grade; Isabella: female, 12th grade; Emma: female, 12th grade; and Sofia: female, 12th grade.

Analysis of the data from the Ocean High School Agriculture Program yielded the following themes: (1) students struggled to overcome barriers and inaccurate perceptions of the agriculture program; (2) some students credited the program for significant personal growth; (3) students enrolled in the agriculture program and maintained their involvement for a variety of reasons; and, (4) students described the involvement of Latinos in the agriculture program as fairly equitable, though they indicated some barriers.

1. Students struggled to overcome barriers and inaccurate perceptions of the agriculture program.

Ethan described most of his struggles as having some misconceptions about what agriculture and the agriculture program really were. “When I was a freshman, high school I signed up for mechanics and I know it was ag mechanics and I said I don’t want to be a farmer. I want to grow up, what is this?” (Ethan, 4-8). He remembered being irritated about being placed in the ag program when all he wanted was a welding class.

I said I don’t want that crap. I’m not a farmer. I’m not into ag and I was really disappointed and then they give your shirt, you pay your shirt and you pay our dues which would cover the cost of the supplies you need (Ethan, 232-234).

But Ethan says he quickly found out the program was much more than he thought.

And then my first day I found out it’s not all about farming and being a farmer, it was about watching people come together for a program that were into ag and related and then I’ve been it for four years (Ethan, 4-8).

Despite coming to the conclusion the agriculture program was a good choice, Ethan struggled with being a city kid and what he perceived to be the country requirements of involvement.

One of the challenging things was I grew up in the city. I'm a city kid and I thought ag was just a country program and I didn't think I was going to have this much opportunities as people as people who already enrolled in ag but was really hard but I mean, the thing about the ag program they try not to discriminate but I think there's equal opportunity for everybody to do as good as they want (Ethan, 144-148).

Sofia was happy the city versus country issues didn't need to limit what she could do in the program.

I think it's so cool before there was a lot of discrimination that you have to be on the outskirts of town and you have to be a country kid to be in FFA but you know growing up in the city it doesn't mean that you can't aspire to work in the agriculture industry you know (Sofia, 153-156).

Isabella was also surprised to learn her original perceptions of the program were not quite accurate.

Well yeah coming in you may think one thing but then being in it you realize it's not what you expected. It's not really what it seems and I think that's a good thing cause it tells you that it's different and you don't see what people say it may be but you also get to personally experience it and have your own opinion of it. You can tell others that it's not really bad as people might think it would be (Isabella, 198-202).

David believed the program helped itself by marketing what it does more effectively.

I think they've learned to kind of advertise it more and show that you don't have to want to major in animal science or vet science or anything like that. You can do it just for the fun of it and then you reap the benefits of it too. Like only ag kids can go on this trip because they're in the ag program and oh, no this barbeque is just for ag students. Oh you want to do you know what sign up for the class. It just has a lot of—like brings more to the classroom than like regular non-ag classrooms do so I just think that's what's happened more (David, 313-319).

Sofia wasn't interested in the program when she first heard about it in 8th grade.

I remember freshman year, you know actually eighth grade like how the chapter officers at the time, this girl she graduated last year but my mom's really close friends with her dad cause they work together, but she came to our school and was telling us about ag, you know we're sitting on the floor in the cafeteria and I'm

just like God I want to go back to class, my butt's hurting I don't want to sit here and listen to this stuff about farm and country (Sofia, 255-260).

Isabella shared how others perceptions about the agriculture program would lead them to make inaccurate comments.

'Oh so you want to be a farmer and work in the field or something or what.' First of all I'm like no, I mean, just because I'm in it doesn't mean I have to be a farmer. There's plenty of other kids that they actually don't even pursue in an agricultural job they just do it for the experience and knowledge and the great opportunity that you can get from it. Then I explain to them how they earn money and stuff by raising livestock or anything and stuff like that and it's just—when they would first would tell me it so difficult and frustrating cause I have tell over and over it's not just to be a farm worker or anything or even a field worker or anything like that. But after explaining to them what different things actually go on, what you can learn from it and how you can use some of the skills that you learned in real life situations it's like they kind of—I feel like I kind of open their minds a bit about it and gave them a different perspective on it. (Isabella, 342-353).

Sofia's family had similar misconceptions and would joke with her about her involvement.

They're like 'oh so you going to show me how to milk a cow soon?' Just throwing jokes at me. I know they're joking but at the same time it's no really if you actually go out there and see what these people are doing they're pretty much the future of ag. It wasn't until last year that I learned they're pretty much what keeps the food alive. They're pretty much what keeps everything going and my mom, she was happy obviously because remember how she kept saying to join and join and join, well my other side of the family when they were making jokes and stuff like I was trying to tell them, persuade them about it and then once they came out to the fair last year when I showed, I could tell they were just really happy for me. That I accomplished something like that and I mean to this day my aunt still, she texts me cause her daughters five years old, she's like 'Katrina wants to know if you could teach her how to milk a cow.' You know she wants to know and cause her daughter thinks her mom's serious but it's cool to prove them wrong that it's not just what they think it is (Sofia, 364-375).

Emma described a similar experience with her family members.

Yeah half of my family from my father's side they're all the literally country okie people so they, at first they thought oh you're going into FFA, good luck out there in the heat. It's like no, no I know what I want to do and you guys should

understand cause you guys kind of work with that too so I was actually someone who inspired one of younger cousins to join FFA because at first he thought oh, okay so...mostly if you live in the country or if you do that kind of things that you want to do like work in the farms and stuff that's what it's for and I helped him realize no there's mechanics, there's so much other things that you can do that he never really realized was that. So it was a good feeling to inspire of what he likes to do now (Emma, 377-384).

Isabella's dad thought being in the program meant automatically raising an animal.

He's like 'where would you keep this animal?' I'm like you don't have to keep an animal and then I explained to him more what was about and the different things I was planning on doing and he's like oh, okay I thought it was something completely different so they really support me doing the things that I do in the ag program, going to the meetings and attending the things they put on. They're pretty supportive now that I've elaborated on what exactly that we do and what I do in the program (Isabella, 408-413).

Ethan's dad didn't know animal science was a part of the agriculture program.

Yeah when I was freshman I entered ag and Ag mechanics and then my sophomore year took ag 2 and my junior year I took animal science and my junior year my dad looked at my schedule and he says you're not taking FFA anymore. Yeah I am I'm taking ag animal science. He's like 'FFA is animal science?' and I told him yeah cause they were surprised. I thought it was just like how to milk cows and how to build barns and stuff like that but it's really broadened a bunch of classes. I think they're almost as astounded as I am because there's a whole bunch of stuff that I think people from outside FFA know what's in it. They just think it's milking cows and building barns and stuff like that. (Ethan, 415-422).

David thought the inaccurate stereotypes are just remnants of the past.

I think most of the stereotypical things that are said are mostly how they're referring back to how it was years ago. Like FFA history was barely beginning and how FFA did mean Future Farmers of America but now like in present day FFA just means FFA. It means FFA. It's not Future Farmers of America anymore, it's not segregated for farmers and for girls who can't become farmers until the whole thing merged together and like once you get into the class and everything you see it's not pushing people to be farmers or anything it's just like more opening up new windows and doors (David, 386-392).

Despite some of the challenges they faced with misconceptions about the program, the students seemed to take things in stride.

Yeah. As you mature that kind of goes away but I mean there's always going to be that immature friend that who's like dude that's so stupid you're in a phase, you're going to be farmer. It's going stay but as you mature it kind of fades away and as you mature you really thought caring about what other people think about the program cause it's benefiting you (Ethan, 735-738).

Isabella liked how she could deflect some of the negativity with the scholarships available only to ag students. "Yeah it really helps especially when you have all these scholarship applications and all kinds of stuff. You'd get surprised how many scholarships are available to you" (Isabella, 766-768). Emma thought some students regretted their original anti-ag stance. "I feel like people outside of FFA kind of start almost regretting it because FFA opens up so many opportunities for you that they can't experience cause they missed the opportunity to do it" (Emma, 744-746). Sofia added, "like is karma, like it's karma for them" (Sofia, 762).

Given her experience, Sofia wanted to make sure other students learned what the program was really about.

I would make it more clear because the kids that come in eighth grade they don't really tell that they just throw it out there like and they say do it. You can do it we do it and it's just like what even is it you know (Sofia, 897-899).

2. Some students credited the program for significant personal growth.

Emma credits the program with helping her find her career.

I came in as a really shy student, not knowing what to expect, hardly talking to many people and all the sudden I started gaining more trust and seeing how open FFA was, almost like a family so it easier to interact with more people and get to meet more people and it's a great program because it doesn't just involve one specific thing by a variation of a lot of things that people don't expect are related with FFA. So it's just a program I've really come to love and it's helped me know what I want to major in now so I'm hoping to just keep going with it (Emma, 86-92).

Emma added, “it’s something where you can open up and really start trusting and speaking to more people that you never would be able to before you enter the program.

So it’s something I’ve loved and I look to the future for” (Emma, 248-251).

Isabella found the skills she learned in class very useful.

This year being in science I learned how to bandage. You’d be surprised on how useful bandaging can be when you need it. I have to do that, a couple of times since we learned not on animals but on people and stuff so thought it was really and a useful tool. You never know when you’re going to need those skills (Isabella, 18-22).

Additionally, Isabella appreciated the soft skills the program taught her.

I like the skills that they’ve taught us like FFA personally has taught me to be responsible, to be on top of my things. It’s also taught me some great communication skills as far as speaking out more and just getting out there and trying new things. It’s just really cool and a good feeling knowing that you pick up those characteristics just like whether it being in a year or like me four years so I’ve been in since freshman year. I’ve been able to build off of that. So it’s really cool knowing that. Just FFA had that impact on me (Isabella, 94-99).

In fact, as she progressed in the program, Sofia decided to show a lamb.

I just enjoyed the feeling experiencing taking care of a live animal and then the reward from getting money and actually selling that animal to people so they could eat it or whatever. You know it’s just a really rewarding feeling that for like three or four months you were taking care of that animal and you sold it and made money that you know that you were worth. So I think that was rewarding (Sofia, 115-119).

Additionally, Sofia indicated her mom has noticed changes since her involvement in the program.

My mom was like ‘I’ve noticed a change in you from sophomore year to now after you joined. You’re more responsible’ even though I’ve always been responsible early, she’s saying that it widens your horizons. The different things that you learn here. All the people you meet and just things like that (Sofia, 399-402).

3. Students enrolled in the agriculture program and maintained their involvement for a variety of reasons.

When describing their involvement in the program, several of the students kept going back to the impact of their agriculture teacher.

She makes sure everything, make sure that you understand everything and I think it's really special when a teacher like that, ones that actually care about what you do and how it affects your future. I think she's more cool because she's like a universal teacher. She teaches everything here. She's our only ag teacher (David, 45-48).

Ethan shared how his ag teacher's passion rubbed off on him. "They know what they're doing and they love their job so that really inspired me and also as a freshman and I stuck with the program all four years" (Ethan, 239-241).

You know they love their job and they know what they're doing and then the passion for it, which in a way it rubs off on you because you don't want to be weighing that program and just be dull. You want to have the passion they have cause it's really inspiring for what they do (Ethan, 66-68).

Isabella felt her ag teachers pushed students to get involved and succeed in the program.

Like they persuade you to do your best. They want you to succeed in whatever it is that you chose to do. Whether it being in ag or whatever. Our teacher she encourages us to that, which helps us, especially me because you know we do need encouragement to do things and without that it's like you don't really care or feel like doing anything so with the encouragement that we get from any our ag teachers it's good cause they persuade us to get our degrees and attend judging teams and stuff like that and it's pretty cool (Isabella, 70-75).

Emma also had positive experiences with her ag teacher. "I saw how really trusting and trustworthy the teachers are and how much they just love their job and they make you feel like it's something you would want to stay with it" (Emma, 246-248).

David compared his ag teachers to others he has at the high school.

They just want you to get in and get out already. Like you know I think the really big thing is teachers, especially I think we have a special understanding. I think

we have it better because we only have one ag teacher and she knows all of us. She teaches all of us. Some of us have her two classes a day and normal teachers they're the ones that just there and do their job and stuff and like (David, 550-554).

The students also shared what made an ag teacher different. "I mean if you're in a room you can tell whose an ag teacher and who is a regular teacher" (Ethan, 560-561). "They're like the approachable people, almost as if they're not even a teacher but you still respect them...but they're just more of the open people" (Sofia, 572-575). Isabella appreciated the connection she had with her ag teacher, "Like you really build a bond with your ag teacher because you truly have a passion for the program and you truly are involved" (Isabella, 617-618). Isabella continued.

Like I've had three different ag teachers since my freshman year so like just basically one ag teacher but the ag teachers that I've known in general and comparing them to my regular like regular class teachers that I would have, you can totally see a difference. One where's they just want to teach the class, get it over with and the other one they actually want you to learn the subject and the material and if you need any help—yeah the other teachers if you need help they'll talk to you one on one but I feel like I would feel more comfortable talking to my ag teacher than a regular teacher because I feel like the ag teachers that I've had have actually helped and understood what is I need help or what it is that I need (Isabella, 588-595).

The students indicated a variety of reasons for their initial enrollment in the agriculture program. Isabella recalled when the Ag Ambassadors, a group of students representing the program, visited her middle school.

I remember in eighth grade, in eighth grade they go your school and talk about basically what it is and tell you like the myths and stuff and the first thing they said is you don't have to be farmer and so I'm like okay that clears it up and stuff and then they told us some cool things that were would be expecting (Isabella, 13-16).

Isabella continued.

They told us about activities and meetings that they would go to and when people think of meetings they think oh you're just sitting in a room listening to people talk for about an hour when it's nothing like that. Whereas yeah, we have our meetings and then people talk during it but then at the end we always have an activity to just to have fun and just to break the ice with everyone and it's pretty cool and after hearing that I just, I wanted to try it out and if I didn't like then you know, I would just change but I liked it so I stayed in it and this is my fourth year doing it and pretty glad I stayed in it (Isabella, 219-226).

Every student who enrolls in the program, regardless of what courses they want, must enroll in an introductory course first. Ethan felt this helped him dispel some of the myths he had.

When you're a freshman you automatically get intro to ag. Whatever ag class you had you get intro to ag, which is—I think that's what really pulled me into ag because it was interesting learning how ag was and it's not all about farming, you know, being a farmer (Ethan, 234-237).

David felt like the class pulled him in more.

Coming in as a freshman I think the intro to ag class is kind of like what really pulls you in. The stuff that you learn about is really interesting and stuff and then to make things they have annual trips like a Dodger game (David, 24-26).

Emma was drawn into the program by her career interests.

Honestly the first thing that actually got me into this program was my plans for the future, trying to be a livestock and a small animal vet, was really what got me interested. Like I got really interested in it, and it was when barely choosing classes, but I had no idea it was an ag class so I didn't have the experience going into intro to ag (Emma, 243-246).

Sofia recalled how her mother tried to get her to enroll, and eventually she decided to sign up her sophomore year.

My mom's pressuring me freshman year, come on do it, do it, do it and she was getting mad that I didn't want to do it and I'm like I don't see what the big deal about is you know, she's like you never know until you try. Freshman year went by, sophomore year went by and then like something happened in sophomore year in summer I just woke up one day and I was like that sounds, you know what I think I'm going to do it. I don't know sometimes things just drive me to do stuff and something was telling me you should do it and then that same year, junior year,

that's remember when I told you I showed the lamb, like I think that's what it was. I just wanted a challenge you know and everyone's like oh, are sure you want to show a lamb and I'm like yeah, they're like you know that's like the most challenging thing next to like a steer but I wasn't ready for that cause that's a big animal and that's thousands of dollars so I was like yeah I want to do a lamb so I did it. I didn't get first place or anything but I'm still glad I finished it and I did what I had to do (Sofia, 261-272).

4. Students described the involvement of Latinos in the agriculture program as fairly equitable, though they indicated some barriers.

Sofia described how she originally didn't want to be a part of the agriculture program. "When I was a freshman and sophomore I was like oh that's just a bunch of posers in there and I'm not going to do that" (Sofia, 107-108). She went on to describe how she had the perception it wasn't for students like her. When pressed for an explanation, the students shared how there were some negative perceptions to being Latino and being in agriculture.

I think there's always going to be that stereotype, especially with Hispanics and working in the field and stuff like that. How I deal with that kind of stuff is I just ignore it. Even as a Mexican, that I see that and just racism everyday not just in FFA but I mean everything, even in the police departments the number of minorities that are being introduced into those work forces is increasing and even in ag so I think the thing is just ignore and not feed into that whole thing if you just do what you set to put out to do and you just do it. You don't really—ignore all that other BS (Ethan, 355-361).

Isabella didn't feel the stereotype existed in the agriculture program.

Yeah I think it's cool cause I mean when you hear of work like hard labor most people think the stereotype oh, it's probably just Mexicans. Not with the ag program, we have just as many girls as we do with boys and vice versa like we're really diverse and we don't really deal with that whole racism and stereotype stuff (Isabella, 478-481).

Ethan shared how his original perceptions were not completely accurate.

Yeah last year as far as Caucasian guys go, I'm like most of these guys are White, like they're not going believe in me and do stuff but you know they didn't

really—they said equal opportunities for everybody. That’s what I really like. Everybody had the same chance, same opportunity. Nobody was judged harder because the color of their skin, which I really like (Ethan, 440-443).

He continues to describe the program with regard to ethnicity.

This program is not really racist. There’s not a lot of race segregation. There’s not borders. I think maybe one Hispanic kid was like you know I’m going to try this one day and he liked it and told his friends and then it just kind of spread. That’s how I think maybe it happened. But I mean now there’s equal opportunities for everybody in this program (Ethan, 296-299).

Students gave their thoughts on how agriculture and the FFA became more diverse and accepting of Hispanic students.

People are kind of shy, kind of scared about it. You know some people probably felt like me and Enrique in the beginning and then they matured and then they saw things and they realized maybe I can go for it or maybe they just decided what kind of career path or something along that whether it’s being a nurse and deciding well maybe vet science is for me or something related to ag might have changed it (Sofia, 301-305).

Emma hoped others would see the program really wasn’t like people think.

I think what really helped is that we start seeing how not only a lot of country people but at the same city people can all do the same similar things. Like you don’t have to live in the country to be able to be involved in programs that are as inspiring as FFA is. So I think people just finally realized...why are we worried about discrimination when we could be doing something we actually really love. So I just hope everyone else can see it that way too (Emma, 307-311).

Through her involvement, Isabella added how the program felt like a family to her, perhaps eliminating some of the negative feelings she had going in.

Like in the ag you literally all feel like it’s a family. You get to know one another. You get to bond with different activities that go on and I think it’s really cool because you see how they environment is in the ag class and from a different class (Isabella, 505-507).

When discussing their ability to be themselves, including their cultural identity, students indicated fitting in is really up to the individual student. Sofia felt she could be true to her own personality and culture.

If you care a lot about what people think about you of course you're going to go and act like someone else cause everyone already naturally is like that but for me, of course, I don't act different because I feel like you're going to win people's friendship and you're going to win their respect as long as you act like who you are. Because you don't want to act like somebody you're not (Sofia, 672-676).

Ethan agreed.

Yeah you don't have to change—well you don't really change yourself for people in this program because there's, believe it or not, there's people who are exactly like you in this program and this program there is so many personalities especially in our chapter, it's just a really big mix and you don't really have to change yourself. I never thought, I never felt that I had to be somebody in order to make friends in this program or succeed in it (Ethan, 678-682).

Isabella felt the program helped her be herself at school.

If anything they're trying to show you to be who you are. I mean most places you feel like you have to change yourself but with the ag program I feel like if you feel lost they'll help you discover who you really are and I think that's really important why would you want to be different just to impress somebody or feel like you have to fit in when in reality you were born to stand out and be yourself (Isabella, 684-688).

Like Isabella, Emma also indicated she was free to be herself in the program, even more than she could at home.

I feel like the way you act at home or like the culture you practice at home completely almost disappears when you enter FFA cause it's like okay, you have to do these certain things at home but when you're in FFA it's like do what you want (Emma, 692-694).

As far as involvement in FFA and SAE activities outside of class, students indicated Latino involvement was fairly equal. "It's like any other thing. It's really even

and if you take the opportunities and push them and you do. Some people do and some people don't" (Ethan, 836-837). Ethan continued discussing involvement.

Some do and some don't but I think even, going back to race with the Caucasian and the Hispanics I think it's pretty even about who really pushes the envelope in FFA and how the opportunities taken advantage of. So I think it's equal (Ethan, 814-816).

Isabella felt it was really up to each student. "I think everyone's just different based off how they truly feel about the program and what they feel like fits them. There's all kinds of teams trying to find out which team would be perfect for them" (Isabella, 857-859).

Ethan agreed, indicating he didn't think it was really about ethnicity. "Yeah it's not like, oh your Hispanic, you're SAE's not going to work" (Ethan, 861). In fact, he shared how some students take involvement seriously and pursue opportunities beyond high school through the program. "You do have the Hispanic kids who take it and then do go to Cal Poly and stuff like with the program because they get scholarships and they're really into it. So I would—honestly I feel it's even" (Ethan, 873-875).

Despite these positive perceptions of Latino involvement, the students did say more could be done to improve how Latinos experience the ag program. Ethan wanted to dispel the myths that exist.

I would think that there would no intimidation for minorities who want into this program and are thinking like for White, for White kids, I would think that would be what I would change about it. Is that it's for everybody. That everybody would know that (Ethan, 889-891).

He goes on to describe how he expected more racism. "You're really, I think you're really shocked like okay. And then you turn to be like us where you want people to know it's not racially discriminating or anything like that" (Ethan, 916-917).

Emma thought there needed to be more advertisement and outreach regarding diversity. “I think we need to start advertising more diversity” (Emma, 1089). Sofia agreed and had her own suggestion. “I think they should have like a little booth with people with different ethnicities to like be like hey, you see us right here”(Sofia, 1072-1073). Ethan added, “So it’s like having kids who are minorities go talk to other minority kids saying you know this is a good program. It’s not really racial discrimination so you know letting them know that kids like them love this program” (Ethan, 1009-1011).

Isabella thought a solution might be research like this study. “Record people like us, our conversation we’re having right now kind of what we’re doing and show it more to the kids who aren’t really ag” (Isabella, 1060-1061). Ethan agreed with her. “Yeah and show them kids like us who were once like them who our perspectives are changed and hopefully” (Ethan, 1065-1066).

Despite the positive perception of the program, the students eventually admitted there was unequal involvement with regard to leadership positions in the chapter. As they began to discuss the chapter officer team, Emma shared, “Especially if you look most of our officers the past years...they’re all Caucasian” (Emma, 1096-1097). Though the lack of involvement in leadership positions existed, the students perceived it to be an issue of rural opportunity rather than being about ethnicity.

Most of the kids who are officers they had found that family, brothers and sisters who were officers so they’re like oh I want to be that, but kids like us who come in like, we’re not really caring about that, we’re really taking advantage of the other opportunities (Ethan, 1142-1145).

David agreed. “They kind of have a little more of head start than you do” (David, 1151).

He continued his thoughts.

Yeah. So it's like it's harder for you to—even if I try to run as an officer or anything like when you're running up against a person who was an officer last year and was White but you don't get your name out there because they were already there last year (David, 1166-1168).

Emma thought they had more popularity and experience. “I think it has to do with the fact that they have their name out there. I mean if you look at our officers most of them they've had their SAE projects since freshman year” (Emma, 1189-1190). Ethan agreed. “It's not really racist it's just like who's more popular and you know” (Ethan, 1260).

Isabella described the difference between students like her and some of those who become officers.

Freshman year they always like encourage us—I remember my freshman year my teacher had told us you don't have to have an SAE project this year but your goal for this year alone is to have it planned that way sophomore year through however, if you want to do it all four years or how many years more you want to do it you can start right away on your SAE project. So with the kids that are the officers if you look at them individually you can see like how they mentioned most of them are probably like 4H or other different types of groups so they already have that background and they already know basically what to expect if they were to get in that position, which is why I think they move in that position because they do have the experience that is necessary. Or say if one of us were to run I know I don't have the experience to do it (Isabella, 1194-1202).

Isabella continued her thoughts, noting some regret she didn't have the same opportunities as other students.

It's just unfortunate because you have kids that would probably run and they actually want to do it and learn more about it and then you the kids where they may not have done it but because they have that more popular title they win it (Isabella, 1266-1268).

Washington High School Agriculture Program

Vincent: male, 11th grade; Ricardo: male, 11th grade; Olivia: female, 11th grade; Maria: female, 11th grade; Frank: male, 12th grade; and Sam: male, 12th grade.

Analysis of the data from the Washington High School Agriculture Program yielded the following themes: (1) students described the agriculture program as feeling like a family; (2) students reported significant personal growth from their involvement in the agriculture program; (3) some negative stereotypes and barriers to involvement existed in the program; and, (4) students' motivation to join and be involved in the program involved several factors.

1. Students described the agriculture program as feeling like a family.

The students interviewed in the program indicated that it had a family feel – something they valued as high school students. The program was organized as an academy, where students would take several classes together with other students enrolled in agriculture.

I feel that it helped a lot because coming into high school is something really scary. And knowing that you have this ag building with an amazing ag family, it gets rid of all that scariness because you know that there are people there that believe in you. And they are going to push you to do better. It is a really good experience (Maria, 25-28).

Sam felt encouraged by his peers in the program.

If someone hears that you have a competition or something, you may just be walking through the halls and they will say you have ag issues today, something like that. They encourage you and say good luck; you guys got this, all the time. There is not one time that I have not heard good luck when I have a competition or presentation (Sam, 39-41).

He also appreciated the fun atmosphere. “We just like to laugh and have fun. It is not like we are making fun of each other's race, each other's ethnicity. We all just have fun as a family” (Sam, 362-363). Frank, who is an active member of the soccer team, said most of his friends were in the program, including his teammates, referring to it as the “ag clique” (Frank, 98).

Similar to Sam, Olivia indicated that her peers in the program were very supportive of each other. “Yesterday we had a meeting where we had to elect officers for next year. And whenever anybody would stumble or forget, people in the crowd would be like yeah, you got this. It is okay. You can do it” (Olivia, 44-46).

When asked about the positive support from fellow agriculture students, Sam indicated that it was unique at the high school.

I usually do not see it outside of the ag building unless it is ag students, which we usually do not leave the ag building unless it is lunch or something. But we always come back and have lunch in here. But you usually do not see it from other students who are on campus (Sam, 54-56).

Olivia reiterated the family feel, despite how she thought it sounded. “That sounds super cheesy because how many times do you hear oh, one big happy family. But I promise that is so true. I have never seen that before, ever. And it is a really cool feeling” (Olivia, 230-232). She adds, “You have this experience with the same people. So of course, you get to know them even better and can have closer friends and stuff” (Olivia, 1052-1054). Sam explains why he thinks the program feels so close.

I think it is really like a family because all your family, no matter what, they will always love you no matter what decisions you make. And I feel like that is the case in here because you can make any decision. And in the end, they will still always be by your side. So you can make a decision in pretty much anything and they will support you all the way through it. And they will give you encouragement to try and reach that goal. I have been told a lot to run for state officer and I do not know if I want to do it. So even if I say yes or no, I know there will always be support from my peers (Sam, 238-244).

Maria described the family feel as comfortable, and a place she could step out of her comfort zone.

It is nice seeing the same faces throughout because you feel more comfortable. And it is just easier to be you. Those classes that are not Ag Academy and you are with what we call the outside kids, go a lot different because it is not the same. I

do not know. I feel like for me, my math class, it pushes me back into my comfort zone because it is so awkward because I do not really interact with them. They are not really easy to interact with. But yeah, I come into my ag class and it is just whatever. I can be me (Maria, 1063-1068).

Sam described his non-agriculture classes as a drag. “I think we see other classes that are not part of the academy, I think we all – this is my perspective. I see those classes as a drag. I never want to be in those classes. And when I come into the ag classes that is a lot of fun” (Sam, 1080-1082). Vincent indicated differences in participation. “Outside of the ag Program because I have Geometry with regular students not in the ag program. They are embarrassed to do stuff” (Vincent, 80-81). Olivia concurred.

I am pretty sure all of us have a regular class where we do not have ag students in it. So you feel like that uncomfortableness because there are clicks and people do not really talk to each other. But then once you are in your ag classes, it is just you know them. There is so much support. And everybody knows each other, so nice and kind. It is just easy to get along (Olivia, 255-259).

Vincent indicated he saw his agriculture teachers as an extension of his family, referring to them as additional parents giving advice.

So it is just like you have your parents at home giving you advice and stuff like that. You have your teachers here. They are like your parents giving you advice on education and stuff like that. And the other students are just like your siblings, which is motivating to do better in everything you do (Vincent, 246-249).

Students also expressed their perception the agriculture program was a safe place to talk about race and ethnicity. In fact, the FFA chapter had a public speaking team (Agricultural Issues Career Development Event) taking on the topic of immigration.

Yeah, I feel like we are super comfortable about it because our goal, Ag Issues Presentation, is about immigration reform. So we really just make jokes about it because everybody sees ag as a stereotype. Why are Mexicans in there? Why should that not – why? They are not going to be farmers. But we do not care (Sam, 359-362).

The students described the program as being very diverse, “it is like half Mexicans and half white maybe” (Olivia, 367). “Here, it is not only Hispanics and my people. We have Muslim people and African-Americans in the program” (Vincent, 380-381). Moreover, the students indicated they do have discussions about race and ethnicity in their agriculture class beyond the Ag Issues team, indicating this would not likely occur in other classes. “I am pretty sure in any other class a Mexican would be like why are you saying stuff about Mexicans” (Sam, 416-417).

The students also indicated they felt comfortable being who they are in the program. “Just everyone fits in” (Vincent, 455). “Yeah, I think everyone just accepts everyone for who they are. They do not ask them to be somebody else. Nobody is fake in here. We are all just whatever we want” (Sam, 459-460). Olivia echoed Sam, “we do just embrace who we are. We are like yeah, one direction, crazy, loud soccer players” (Olivia, 466-467). Frank added, “It is open for everyone. No one is judged here. Everyone just fits in” (Frank, 638).

The students went on to share their experiences with diversity at state level activities. Sam described his experience at the State FFA Leadership Conference.

Well this was my first year at state conference. And I did not even think about all that because I was having a bunch of fun. And nobody looked at me like oh that is a Mexican kid. Nobody is going to stare at you. There were a lot of people of all races in there. It seemed like just a great place to be. It was all positive (Sam, 495-498).

Sam went on to describe this year’s election of an Indian student as State FFA President at the conference.

And it is cool because [name] went up against a white girl. What else am I going to say, a Caucasian female. When he was voted for, you saw them all stand up and go crazy out of their seats. They said his name and everybody stood up

screaming. It is cool seeing that because you usually see the typical Type-A white girls with blue eyes and blonde hair. It was cool because when D-Pac went, everybody stood up and screamed (Sam, 519-524).

Vincent indicated he saw quite a bit of diversity at another FFA event beyond the chapter.

“...even though it is my first year in ag, I have not been in a lot of places. Just like a month ago, we just had a Capital Ag Day...And they are just like us” (Vincent, 831-833).

2. Students reported significant personal growth from their involvement in the agriculture program.

Vincent described the program as helping him get out of his comfort zone.

The positives out of being in ag are getting to know each other. It really gets you out of your comfort zone because last year I was not really out of my comfort zone. And I did not really meet any people. This year, I met a lot of people and I am really out of my comfort zone in here (Vincent, 6-9).

Olivia liked being on a judging team and how it pushed her. “I think one of the most rewarding challenges is being part of a team like a judging team” (Olivia, 11-12).

Yeah, because it is really hard because you do not know if you are going to make it on the team or if you are good enough to do something super uncomfortable and that you have never done before. And you did not even know you could do it. When you end up doing it, it is really rewarding because you prove to yourself that you can do it. It is really cool (Olivia, 16-19).

Sam and Frank added to Olivia’s thoughts. “I think to add onto that, just getting skills that you did not have before. I was really bad at public speaking and now, I can talk in front of hundreds of people. That feels rewarding to me” (Sam, 21-23). “I actually have the same perspective as he did about public speaking” (Frank, 32).

Vincent shared how his parents have noticed his growth since enrolling in the program. “They seem like – they have seen me grow as a person. And my character just grew better. So now, they are just accepting that ag is really good and stuff like that”

(Vincent, 159-160). Sam's parents saw similar changes. "My mom sees – because I do the rallies here. And so once she saw my public speaking skills were getting a lot better and I am not really shy anymore" (Sam, 727-729). Sam also described how his mother feels about his involvement on the Ag Issues team.

For Ag Issues, I read it to her sometimes. And she is really proud that I can read the whole thing. She said 'wow, you memorized the whole thing mijo.' She is like good job, I am super proud of you. And I do not know, it is super cool to see that. But starting off, she just did not know what to expect; the same thing with my dad, especially since I play soccer. They were like 'oh, why are you spending time over there? You should be playing soccer. That is what you are going to do.' But now that they have seen what it has done for me, they are really supportive of it (Sam, 734-740).

Vincent had a low GPA the previous year, but credited his involvement in the agriculture program for helping him bring it up, and his mom noticed.

Yeah, I had a 1.5. But yeah, so the end of the first semester, I ended my year with a 3.5 – 3.6 GPA. So my mom seen how much FFA has helped me. So now she is really supportive. Because I ran for Chapter Office yesterday also so I was telling her about it. She was like 'oh, you did good' and stuff like that (Vincent, 744-754).

Vincent went on to share how the program has given him drive to succeed.

Now that I joined FFA, this is my first year, I have a lot of people motivating me to strive to better myself, my grades, my attitude, and my personality. So I think that has helped me. And just being out of FFA, you have no one to motivate you except for your parents. And here, you are just trying to not let anybody down that has been motivating you because Mr. Smith [teacher pseudonym] also pushes you (Vincent, 759-763).

Frank had a similar perspective, describing his agriculture teacher.

He pushes me on too. Weekly, he prints out report cards or progress reports and tells you are missing this. And you have to turn this in before this end date or you are not going to do this. And that puts pressure on you. But you get it done (Frank, 767-769).

Sam emphasized the program is more than just agriculture.

I think another thing is that this program gives a lot more skills than just a farmer. Our advisers let us know all the time that students before, they have gained skills and they have gone off to major in something else. And even our chapter president, she is going to be an elementary school teacher (Sam, 184-187).

3. Some negative stereotypes and barriers to involvement existed in the program.

Sam indicated his biggest barrier was making time for all of the aspects of the program and balancing these with the rest of his responsibilities.

I think trying to make time for everything. That is probably one of my biggest challenges because I have a lot of things I need to work on, especially your senior year when you go back to college and you have a lot of things that you need to do. But other than that, I cannot think of anything that has been negative (Sam, 62-65).

Ricardo described some of his friends outside of the program as treating him poorly, though Vincent indicated, “everyone has been pretty good” (Vincent, 102). Frank agreed with Ricardo and said “sometimes it is negative because they say oh, what are you going to do in the future that involves ag?” (Frank, 127-128). Indicating most of this just comes from ignorance, Ricardo countered “they do not really know what it is about” (Ricardo, 129). “Sometimes you walk around with people that do not know much about ag. They go so what are you going to do when you graduate, walk toward the dairy in the morning or something” (Ricardo, 143-144).

Vincent described himself as one of those kids who had a bad perception his freshman year.

I was one of those kids that was like oh yeah, ag is just for farmers. People are going to be farmers in the future. But then this year, I started – well last year since I saw them two join, I was like oh well maybe it is something different. And then this year I got put into the program. And then I remember going home when I got my schedule because you get your schedule beforehand – before school starts. I told my brother. And he was like ‘oh, what are you going to be doing in there? Are you going to be a farmer?’ (Vincent, 153-158).

Olivia found it comical that Vincent talked bad about the program and then joined.

Yeah, it is really funny because we have defeated so many people because I used to have Spanish with you, Vincent, and Ricardo. And Vincent used to say some pretty harsh words about FFA. I was like ‘oh, hey Vincent. What are you doing in my ag leadership class this year?’ It is pretty cool that they have changed their minds about it (Olivia, 161-164).

Olivia shared some of the misconceptions she faced as a student in the program.

My friends just did not know what FFA was. So when I told them it was the Future Farmers of America. They were like ‘you want to be a farmer?’ And I was like no; I do not want to be a farmer. But I would be something in agriculture like an ag lawyer, a lobbyist, or something (Olivia, 174-177).

Vincent shared the misconception some have about future careers if you are in the program.

Yeah, I think the people in the program, since they really do not have an idea of what FFA is really about, they just hear a bunch of other stuff. Oh yeah, that is for – they are going to become farmers and things like that. But then they start getting more ideas of what it really is about. And they just start disregarding the ideas of other people (Vincent, 211-214).

Sam added “you do not have to become a farmer. I think that is one of the biggest things that people outside think that every student in FFA is going to be a farmer because that is not the situation” (Sam, 187-189).

Some of the students shared how family and friends pressured them not to enroll in the program. “I had a cousin that did not want me to join ag” (Vincent, 308). Ricardo shared the same. “Yeah, my brother does not want me to join ag either” (Ricardo, 311).

They were telling me not to join because it was a bunch of weird people and stuff like that. When they were in high school, they were like oh no, they are just a bunch of stuck up people that do not even care about other people. They just care about themselves and only about themselves (Ricardo, 324-327).

Sam’s family had negative thoughts before his enrollment as well.

I think that a challenge was when my brother and sister both went here; I am just going to be truthful that they saw it as oh it is just a program for a bunch of rednecks. We are not a bunch of rednecks. I was like maybe that was the situation for you. But people reached out to me and then I came in and saw it is that grace in here. Everybody is accepted in here. And I think that was really cool. But they do not see it like that. But I feel now that they have seen me grow as a person they accept it now. And now they know it is not just me, but a lot of my friends are in it too (Sam, 337-343).

Frank thought his siblings' experiences in the past also caused some misconceptions about what the program was like now.

Also from the siblings not wanting us to join, I think it is because since, like he said, when they were in high school, from what I heard from teachers, the ag program was like a 180, just a whole different other program (Frank, 345-347).

Sam described how his parents had some doubts about his involvement in the program, particularly, where he was spending all of his time.

I think that parents usually do not know. But because when I first started out my freshman/sophomore year, I was not in ag. And I did not have the best grades. But I started spending a lot of time here in the ag building. And at first, I was starting to get home later than usual. My parents did not really know what I was doing. I am in the ag building. They are like 'oh, how do I know if you are telling the truth or not.' They think you are off doing something else. But when they get the report card or something and see that you got straight A's. And you tell oh, I am on a team. They are like what the heck is that" (Sam, 711-723).

Ricardo felt there was some pressure from others for those who didn't come from an agriculture background. "I think people just think that since that they do not come from an agriculture background that they cannot join or that they are not welcome" (Ricardo, 216-217).

Olivia identified another misconception that she internalized. She had doubts about her ability to run for a chapter leadership position because of her ethnicity.

Mr. Smith really wanted me to run for chapter office. But I kept telling him no that I was Mexican. So eventually, he chewed me out a little bit. He said if you are upset about running, how do you think that is going to make other Mexicans

feel. If you are going to create change then be willing to expect that (Olivia, 643-646).

Continuing to push her, Olivia indicated two of her agriculture teachers eventually persuaded her to run for office.

“...they gave me an application and told me to write it. I just kept saying no because I did not know any Mexican officers except for Mickey. You guys are white and I am clearly a Mexican. And it was just scary because I did not think that I could do it because I was Mexican. It was super weird to be brown. It was weird” (Olivia, 652-656).

Responding to Olivia’s story, Frank indicated, “I think you have to take a risk because if you do not risk, you are not going to be in anything” (Frank, 661-662).

4. Students’ motivation to join and be involved in the program involved several factors.

Frank described his start in the agriculture program, which really wasn’t his choice to begin with.

Well my freshman year, I was put in the Environmental Science for ag. And I did not really know what it was. So I just stayed here. After a while, you will change your mind about the meetings and stuff. And I started coming. I actually told him about coming and he was like ‘no, I am good.’ He would not want to join. Until I brought him to a meeting once and another person tagged along and then they just kept going from there (Frank, 202-206).

Maria also felt there were many reasons people ended up in the agriculture program. “I think there are many different reasons. I mean some people were put into a class – or siblings or whatever. There are a lot of different reasons why people got to the program” (Maria, 264-266).

Ricardo and Olivia felt it was the “Teachers” (Ricardo, 222); “teachers are inviting you and they are just like hey, you joined. It is fun. You will like it. Just trusting them enough to sign up for an ag class” (Olivia, 224-225).

Vincent credited his friends for his enrollment.

One of my main motivations to come to the ag was I saw my friends start joining, like I said. They just started joining. So I was like this is interesting. Why is everybody joining? And then I met Mr. White. So he just put me in here. So I think for the incoming freshmen, since a lot of them we have either played soccer with their siblings or played soccer with them or done some activity with them, I think since they look up to us and they see us in FFA, they might be like oh yeah, I want to be in that program also (Vincent, 268-273).

Now that he is involved, Vincent felt his membership in the program earned him some respect from others in his school. “The ag program here at this High School has gained a lot of respect. If you tell the people oh, yeah, I am in FFA. Oh, that is cool. It is a cool program and stuff like that” (Vincent, 109-111).

Frank felt exposing siblings to the program early helped spark interest. “I think a lot of people already want to join that are incoming freshmen” (Frank, 275-276). “Yeah, I mean because I bring my little brother to the meetings. And he is in sixth grade. And he says he already wants to join” (Frank, 280-281). Maria had similar feelings. “With my siblings, they cannot wait to get to high school. They are wanting it in the time to come so I think they would like to be a part of it” (Maria, 285-286). Similarly, regarding siblings, Ricardo recommended “Bringing them to meetings and stuff like that. Getting them involved with whatever we do” (Ricardo, 292-296).

Sam described what he called the ripple effect, where a few kids are encouraged to get involved, and others followed their lead.

I think it is that ripple effect because he started off everything. He was the first one on the soccer team and to be in FFA. And he got rewarded for it yesterday. But like I was saying, it is like the ripple effect. It will start off with one. And once one sees how this program is, maybe he will recruit another one or another two. And that will just keep going. Now that is a ripple effect or domino. I do not know. But I felt like how this program got really biracial is because of that. Because one adviser reached out to a student and that student reached out to other

students. And Mr. Smith reached out to me. And he asked me to join because he saw – actually, I do not know. He just randomly reached out to me. He just told me to trust him and I did. I am glad I did because now I have grown so much as a person (Sam, 598-606).

Some of the students indicated their families now support and encourage their involvement. Referring to her parents Olivia stated, “They were just super supportive because they had seen what I did just in my freshman and sophomore year alone. So yeah, they were really happy for me” (Olivia, 675-676).

At first, it was like they did not know what it was about. But then my mom, she started seeing. My sister, she introduced me to it. And I think Mr. Smith introduced her to it. But my mom started seeing how we started growing as an individual. And she saw us just being more comfortable with ourselves. She started being more supportive as well. She says it is the best thing that has happened to us (Olivia, 682-687).

Sam appeared to credit some of his involvement and persistence and high standards for involvement to his agriculture teachers. “When you slip up on something, you disappoint them. You feel really bad because they have done so much for you. And all you want to do is give back. So you just want to do your best in everything” (Sam, 785-787).

Cross-Case Analysis

Despite the procedure of analyzing each case separately, the data show several themes emerging in common across the cases as evident in figure 10. In each of the programs, there were a variety of factors that influenced the students to initially enroll in the agriculture program. Influences included: (1) Career interests; (2) Friends; (3) Parents and family; (4) The Ag Ambassador recruitment program, (5) Agriculture appearing novel based on their limited knowledge of it; and, (6) Simply ending up in the program

by being placed there by school officials. In terms of involvement, there was also a variety in each of the cases as to how students experienced the program.

Washington program students indicated a family feel, and though students in other programs mentioned similar feelings, it did not surface as constantly as it did in the Washington focus group, yielding it to emerge as a theme. This may be due to the program's academy structure, where students in the agriculture program tend to have most of their classes, including core classes, together. While each of the students in the programs listed benefits to being involved in their respective programs, it was specifically Washington and Ocean where students significantly described the benefits to their involvement. Benefits to involvement seemed weakest at Central.

All of the students in each case indicated some challenges to being involved, with the most significant statements involving stereotypes about agriculture and the agriculture programs, as well as stereotypes and negative perceptions toward Latinos specifically. Some shared specific examples, both within the program and outside the program. Other shared examples of slurs and racism, though these appeared to be isolated based on the interviews. Despite these perceptions, students tended to indicate the perceptions were not as significant as they had perceived before entering their respective program.

Another theme that seemed to transcend most of the cases was that of urban versus country or rural students in the programs. Some indicated the rural students were racist at worst and privileged at best. Others simply indicated this was just due to the experiences of the rural students and the fact they had been involved in agriculture for much longer than many of the urban students. This phenomenon did not appear to exist in

the Washington program; however, Washington tends to draw most of its students from the city – rural students attend another high school.

The students in each of the focus groups seemed to describe somewhat similar experiences despite the differences in each program and community. I propose the following common themes, figure 11, that tend to transcend each case, though each may show more or less prevalence in a specific case: (1) There are many factors, including benefits and barriers, affecting why Latino students choose to enroll and engage in an Agricultural Education program; (2) Each program seems to have positive impacts on the students enrolled despite their individual circumstances; (3) Latino students do face additional challenges to being involved in their respective agriculture program; (4) In programs with students from urban and rural areas, privilege and inequalities may exist; and, (5) Most of students had overall positive perceptions of their agriculture teachers.

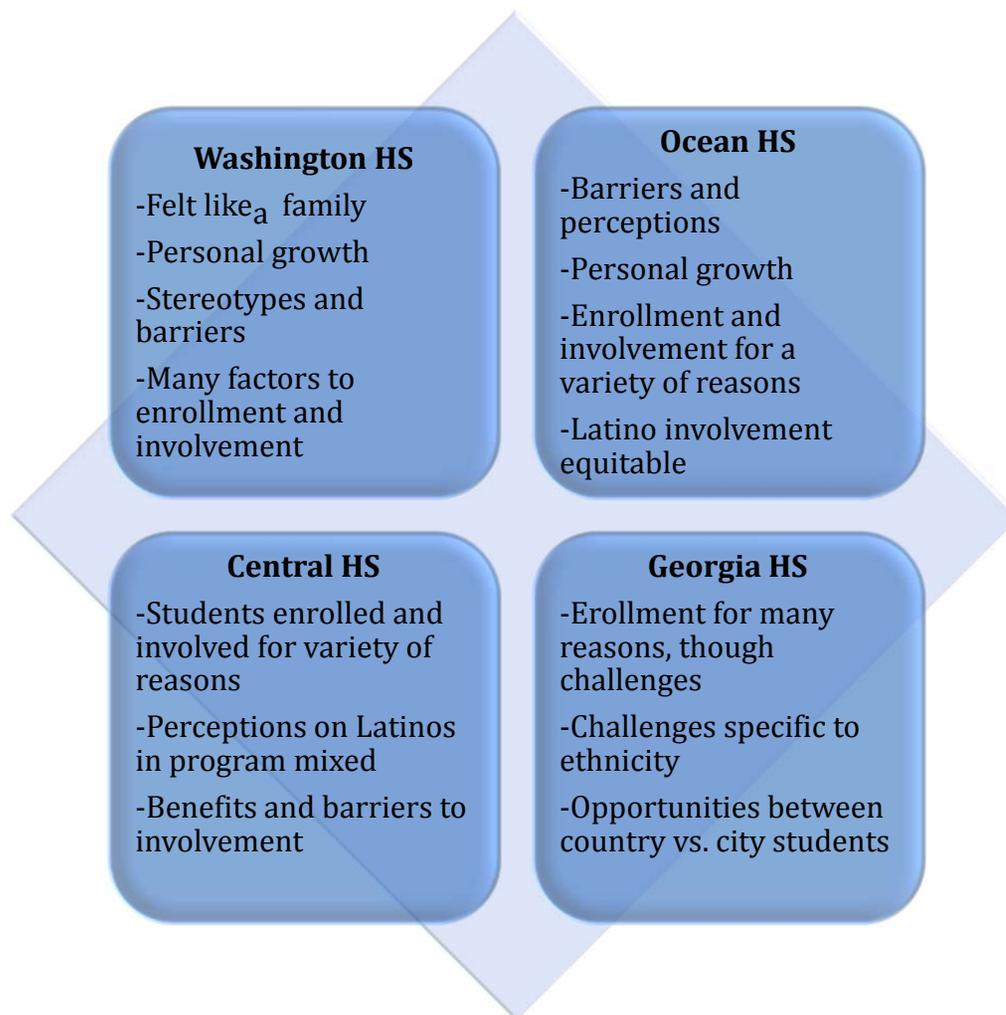


Figure 10. Themes by case.

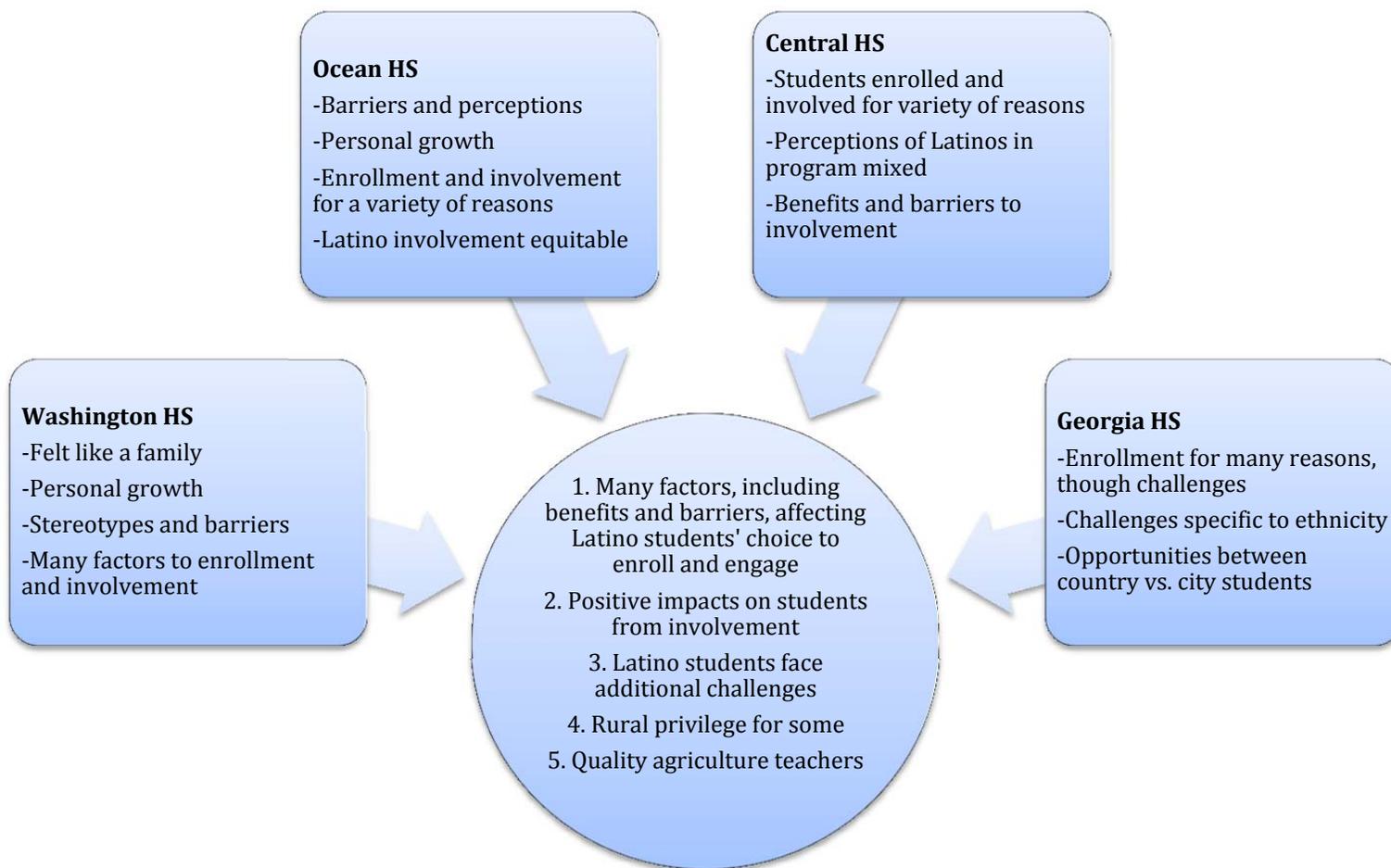


Figure 11. Cross-case transcending themes.

CHAPTER 5: SUMMARY, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

Summary: Purpose, Procedures, Limitations, and Findings

The purpose of this study was twofold. First, this study provided a quantitative analysis of Latino students in Agricultural Education in California at the state level as well as providing more detailed data in four selected cases, and second, the study examined the experience of Latino students in Agricultural Education in their own words. As a mixed methods study, I attempted to provide meaning to the quantitative data qualitatively. Additionally, this study will help inform further investigation to the Latino experience in other programs in California as well as across the nation. Finally, though Latino students are the population of interest in this research, I hope the results and conclusions from this study will help inform studies of other historically underrepresented groups in agriculture education, in California and beyond.

The objectives of the research study were to:

1. Describe the demographics of Agricultural Education students in CA over last ten years.
2. Describe the demographics of Agricultural Education students in California by FFA Region.
3. Describe the demographics of California students over the last ten years.
4. Describe the demographics of Agricultural Education teachers in California over the last ten years.
5. Describe the demographics of California secondary teachers over the last ten years.

6. Describe the demographic trends of each agriculture program in the study.
7. Describe the demographic trends of each high school in the study.
8. Describe the demographics of the teachers in each agriculture program in the study.
9. Describe the Perceived Competence and Situated Motivation for students in each of the four agriculture programs in the study.
10. Determine the post high school plans of students by ethnicity at each of the four agriculture programs in the study.
11. Describe the lived experience of Hispanic students in Agricultural Education.

In order to conduct this study, a parallel mixed methods multiple case study design was adopted. The study consisted of two phases. Phase one investigated statistics and demographics of students and teachers through CBEDS data in addition to California Agricultural Education R-2 program data. This phase helped inform the second, where two parallel methods, a quantitative questionnaire and a qualitative focus group, were conducted simultaneously.

The cases consisted of four high school agriculture programs where the percentage of Hispanic students in Agricultural Education closely mirrored that of the high school where the program was situated. The cases were analyzed independently for results, followed by a cross-case analysis. Thick and rich descriptions were used to capture the students' experiences in their respective agriculture programs and to help give meaning to the quantitative data.

The study was conducted using a Latino Critical Theory framework, along with an assessment of students' motivation using Self-Determination Theory. The results

yielded four conclusions: (1) the Hispanic student enrollment in California Agricultural Education has grown dramatically over the last ten years. However, there remains a significant lack of Hispanic Agricultural Education teachers in comparison to the overall percentage of Hispanic teachers statewide and in proportion to the state's Hispanic population; (2) in three of the four agricultural program cases, there was not a statistically significant difference in motivation and competence between Hispanic and non-Hispanic students enrolled in the programs. However, one high school with unique circumstances did show a statistically significant difference in motivation and competence between Hispanic and non-Hispanic students; (3) the post-high school plans of Hispanic and non-Hispanic students varied by agriculture program. However, Hispanics tended indicate non-agriculturally related careers more frequently than non-Hispanics. Moreover, a significant amount of students in each school indicated they were unsure about their future career; and, (4) there are several intersecting benefits and challenges to Latino students' involvement in Agricultural Education. Students must persist through barriers, stereotypes, and incidents of microaggression in order to realize the benefits of being involved, though dynamic diversity plays a role. Moreover, *Rural Privilege* tends to provide certain rural students with opportunities not as readily available for most city students.

Given the pragmatic stance of incorporating two theoretical frameworks through a mixed methods approach, I reinforce the benefit of this stance given the conclusions that proceed. Simply approaching this study with SDT alone would have omitted the students' voices, which yielded rich details that helped explain the motivation findings. Conversely, the addition of the SDT questionnaire added strength to the qualitative data,

helping to explain some of the potential causes and effects of focus group results. For example, the Georgia High School findings would not necessarily indicate less motivation among Hispanic students in the agriculture program despite the challenges they describe. One would have to *assume* this to be the case without the additional support the quantitative data yields us. Rather than spending time discussing the merits of each theoretical approach, I would argue each was equally beneficial to this study, and combined, provided a much more comprehensive and inclusive examination of a complex research question.

Though several limitations were noted in chapter one, some limitations emerged during the study. With the exception of the students participating in the focus groups, I had no direct access to the students of the schools in the study. Consequently, the response rates were not as high as I would have liked. Moreover, I only had the opportunity to work directly with the lead agriculture teacher at each school, and as such, the training and information provided to the other teachers who would be administering the questionnaires at each school was up to the lead teacher. This may account for the varying response rates. An analysis of the respondents at each school compared to the total eligible students (non-respondents) was conducted to determine any large differences. For Georgia High School, 63% of the respondents were Hispanic as compared to 57% Hispanic enrollment in the agriculture program. Non-Hispanics participated at a 37% rate as compared to a non-Hispanic population in the program of 43%.

Central High School also showed a minimal difference between respondents and the overall demographics of the agriculture program, with the same number of Hispanics

participating as the make up of the program at 55%, and 43% of non-Hispanics participating verses a total of 44% non-Hispanics overall in the program.

For Ocean High School, a larger percentage of non-Hispanics participated in the study, with 53% participating compared to the 42% non-Hispanic population percentage in the program. Only 46% of Hispanics participated compared to the 57% Hispanic population overall in the program.

Washington High School also showed a lower percentage of participating Hispanics, with just 42% participating compared to the 58% overall Hispanic makeup in the program. Non-Hispanics participated 57% versus the overall program make of non-Hispanics at 41%.

It is unclear why there were differences in the respondents in each of the two latter programs.

As I did not have access to the identities of the focus group students, I was unable to member check the themes that emerged through the focus groups.

Cognitive interviews were not conducted as I had limited access to the students in the schools. Due to the low reliability scores for external regulation, further studies should include a cognitive interview to ensure students' full comprehension of the questionnaire.

Conclusion 1

The Hispanic student enrollment in California Agricultural Education has grown dramatically over the last ten years. However, there remains a significant lack of

Hispanic Agricultural Education teachers in comparison to the overall percentage of Hispanic teachers statewide and in proportion to the state's Hispanic population.

Given the results of objectives 1-8, There is no doubt California's Latino population is growing rapidly, nor is their doubt this growth has led to more diverse schools in the state. Most poignant, however, is the transition that has taken place over the last several years in California's Agricultural Education program. Over the last ten years, Agricultural Education has caught up with the state's Hispanic population growth trend, and overall, reflects Hispanic membership on par with the population of Hispanics in schools statewide.

This study examined a small piece of the Latino experience situated in the context of statewide and local data, in order to help provide a better understanding of what Latino students currently experience in this new reality, one where they now account for the largest demographic group in California Agricultural Education, and one where, not long ago, they were considered a minority group. This transition is sure to have its opportunities and challenges alike, and this study helped to capture these.

Figure 7 graphically shows the growth that has occurred over the last ten years, helping to illustrate the California Agricultural Education demographics in comparison to California's total student population; however, the data from table 2 show us there are pockets where Hispanic students are not yet the majority. In fact, Hispanics make up the majority in only three of the six FFA regions in California. This tends to mirror much of the statewide demographics, with certain demographic groups being concentrated in certain geographic locations. This can be seen clearly in the Racial Dot Map (Cable,

2013) in appendix H, with concentrations of the Hispanic population in urban areas as well as the central valley. It is clear there are still two FFA regions with an overwhelming non-Hispanic majority, the North Coast Region, centered in the northwest portion of the state, and the Superior Region, making up much of rural Northern California.

Despite the trend of increasing Hispanic students in the state and in Agricultural Education, the lack of Hispanic teachers, and the stagnant growth, should be an area of concern, particularly with at-risk students (Dee, 2005). Over the last ten years, the number of Hispanic teachers in California Agricultural Education has consistently remained less than 8.00%. If our Hispanic student population is now over 50.00%, shouldn't we expect to see more students entering the agriculture teaching profession? We should, particularly when we compare the number to the total percentage of Hispanic teachers statewide, which exceeds 18.00%. While 18.00% in itself poorly reflects the actual state population, it does come closer than the current 7.26% of Hispanic teachers in Agricultural Education. Moreover, as indicated in the Central High School focus group results, students desire an agriculture teacher that reflects their own ethnicity. Furthermore, there is also some concern with the potential for Caucasian teachers to set lower expectations for students of color, which can lead to lower student achievement as they may begin to internalize the lower expectations. (Núñez, 2014).

The lack of teacher diversity was also observed in each of the four schools in the study. As figure 8 showed the growth of Hispanic student enrollment at each of the schools, the number of Hispanic teachers remains low. In fact, the total number of Hispanic teachers in the case study schools was 1 out of 8, or 12.50%. This slightly exceed the average of Hispanic teachers in all of California Agricultural Education;

however, the schools in the study were all located in areas of higher concentrations of Hispanic students, where we might expect to see higher numbers for teachers as well. It should be noted, however, Vincent et al. (2012) found teacher race was not a factor in students' decisions to pursue a college major in Agricultural Education. Their study did, however, find teachers' ability to relate to a student of color culturally and socially was an important factor.

Implications and Recommendations for Conclusion 1

Given the low percentage of Hispanic Agricultural Educators in California and the schools in this study, additional recruitment measures for agricultural educators of color should be considered. Jones and Larke Jr. (2001) found having a person of color encourage students to pursue an agriculturally-related career increased their likelihood of doing so. Perhaps, until we reach a number where more agricultural educators are people of color, additional efforts should be made to engage community members, parents, and alumni who work in agriculture, in our Agricultural Education programs. While their presence is not enough, the frequency and ability for them to interact and encourage students to pursue careers in agriculture may increase students' willingness to do so. Moreover, it may also help dispel some of the negative perceptions about agriculturally-related careers. Finally, if we are to recruit more teachers of color, specifically Hispanic teachers, we must address the willingness of Hispanic students to choose a career in agriculture as discussed in conclusion 3.

Conclusion 2

In three of the four agriculture program cases, there was not a statistically significant difference in motivation and competence between Hispanic and non-Hispanic students enrolled in the programs. However, one high school with unique circumstances did show a statistically significant difference in motivation and competence between Hispanic and non-Hispanic students.

The assessment of student motivation using the SIMS and PCS scales yielded mixed results. The assessments have been validated by their authors, as described in the reported reliabilities in chapter 4; however, the post hoc analysis of each scale by school site indicated a poor (George & Mallery, 2003) reliability ($\alpha = .53$) for the external regulation scale at Ocean High School. Each of the other scales at all of the school sites reported good reliability scores. Given the reliability, we can examine the means to determine the motivation of students overall for each subscale.

Overall, Agriculture Education students in each of the four programs had moderate to high motivation scores. For perceived competence, each of the programs showed mean scores averaging over ($M = 5.00$), which shows high levels of competence on the 1-7 point scale. As an important aspect of motivation, these scores help us conclude students, overall, feel competent in their agriculture program.

All of the programs in the study also showed moderate to high intrinsic motivation scores, the lowest being ($M = 4.55$), thus we can conclude the students in the survey are intrinsically motivated to participate and engage in the program.

The assessment of identified regulation resulted in scores ($M = 4.50$) or above, also indicating a moderate to high level of identified regulation. The results can lead us to

assert students in the case study programs will tend to engage in extrinsically motivating activities due to an expected positive outcome such as scholarships, trips, or opportunities for college. The results of the intrinsic motivation and identified regulation scores are encouraging, as Vallerand, Fortier, and Guay (1997) found a connection between low scores in these specific subscales and high school dropouts. High scores may indicate students are less likely to drop out of school, though more investigation is necessary.

External motivation and Amotivation are negatively correlated to the previous scales. As such, the results showed scores inverse of the other scales. The highest external motivation score was ($M = 2.81$) at Central High School, a score indicating students do not perceive a high level of forced or demanded involvement. This finding helps explain the higher scores for the PCS, intrinsic motivation, and identified regulation scales. Similarly, amotivation scores also tended to be low, with the lowest score being ($M = 2.78$) at Central High School – all other scores for each of the schools fell below this mean. Amotivation is the least intrinsic type of motivation, and demonstrates an unwillingness to engage (Deci & Ryan, 1985).

Given the scores discussed above, objective 9 also sought to compare the results for each scale by ethnicity. Only one school was found to have significant results ($p < .05$). The data showed the scores at Georgia High School were statistically different between Hispanics and non-Hispanics for each of the scales. Hispanic students were less motivated than non-Hispanic groups, with a medium effect size for PCS, intrinsic motivation, identified regulation, and amotivation. The effect size for the difference between the external regulation means was small to medium. The mixed methods approach to this study helps shed light on what the cause of this difference might be,

though as mentioned hereafter, further research should address the underlying causes in similar programs.

Implications and Recommendations for Conclusion 2

In general, the motivation scores in each of the subscales indicated students in the four programs in the study were highly motivated. However, given three of the four programs did not show significant differences between Hispanic and non-Hispanic students, the results present more questions. While the qualitative portion of this study helped explain some of the unique phenomenon at the Georgia High School, which did show a statistically significant difference in Hispanic and non-Hispanic scores, these results cannot be generalized beyond the program. The findings indicate culture and ethnicity may play a role in students' motivation, which adds to the findings of Cox, Lobel, and McLeod (1991) who found differences among ethnic groups in student motivation on group tasks. Cox et al. (1991) tied their findings to the differences in individualistic cultures and more collectivist cultures, which may have been at play in my study.

When investigating urban agriculture students' decision to enroll in Agricultural Education, Anderson (2013) found students were more satisfied with being involved in the program and engaged more in academic tasks related to agriculture when they perceived they had autonomy in their decision to enroll in the program. The qualitative results from this study are congruent with Anderson's, showing students enrolled in the four programs in the study for a variety of reasons, most reporting some level of autonomy in their decision to do so.

The SIMS and PCS scales do not assess relatedness, an important aspect of SDT. It is possible the results at Georgia High School could be connected to a difference in Hispanic students' perceived relatedness, which would be congruent given the challenges they expressed, to feel a connection in the Georgia program – specifically the challenges of non-rural students fitting in with rural students. Moreover, the students in the Washington program, which showed no statistically significant differences in motivation between Hispanics and non-Hispanics, tended to indicate a strong family feel, which would generally indicate a high level of relatedness. More research should be conducted on students' sense of relatedness in Agricultural Education to be sure.

When recruiting, teachers should be cautious to provide information, and encourage and support students in their decision; ultimately, however, the decision must be their own in order for them to fully internalize their experience in the program on their own. However, there is promise in the ability for teachers to create an environment for students who are initially extrinsically motivated, to internalize their experience in the agriculture program, just as some of the students initially mentioned not wanting an ag class, but later indicating they are glad they were enrolled. Similar studies should be conducted in order to ascertain whether self-determination plays a role in students' decision to enroll and engage in varying types of agriculture programs across the nation, as there are many variables that may differ in each school and community where agriculture programs exist.

Due to the demographics in California, Hispanic students were the focus of this study. Similar studies should be conducted to investigate the motivation of other ethnicities and races. Moreover, longitudinal studies should be conducted in order to

track motivation over time as a student proceeds through high school and the agriculture program. Furthermore, similar studies should be conducted in schools where the diversity of the agriculture program does not match that of the school, either being more or less diverse. Finally, comparing motivation scores by ethnicity could be tied to an assessment of the agriculture teacher's ethnicity and perhaps, his or her assessed cultural competency.

Conclusion 3

The post-high school plans of Hispanic and non-Hispanic students varied by agriculture program. However, Hispanics tended indicate a non-agriculturally related career more frequently than non-Hispanics. Moreover, a significant number of students in each school indicated they were unsure about their future career.

Objective 10 examined the post high school plans of students in each of the four schools in the study. The descriptive statistics showed the choices of each ethnicity group surveyed, with some similarities and differences surfacing. The vocational or trade school choice appeared to be fairly consistent between Hispanic and non-Hispanic students at each school site and between the schools. The Ocean, Washington, and Georgia programs had fairly consistent rates of Hispanic and non-Hispanic students planning to attend community college after high school, though the Central program showed different results. For Central 43.33% ($f = 13$) of non-Hispanic students indicated community college while only 13.15% ($f = 5$) of Hispanic students indicated the same.

For all of the programs other than Ocean, the Hispanic students who responded to the survey indicated an intention to attend a 4-year university more frequently than non-

Hispanic students. At Ocean High School, non-Hispanic students chose the 4-year university option (72.41%, $f = 52$) more frequently than Hispanics (52.00%, $f = 21$).

Perhaps most interesting was the large difference in career choices between Hispanic and non-Hispanic students across all four programs. For every program, non-Hispanics indicated an intention to obtain a future career in the agriculture industry at a greater rate than Hispanic students. The greatest difference existed at Georgia High School's program, where 25.51% ($f = 25$) of non-Hispanic students indicated a future career in agriculture compared to 1.21% ($f = 13$) for Hispanic students. The lower motivation and competence scores of Hispanic students in the program may explain these findings. Moreover, these findings support those of Talbert and Larke Jr. (1995), who found minority students were less likely to see opportunities in agricultural careers. Though Hispanics are no longer a minority group in California, their rise to being the largest demographic group is recent, thus there may be structural barriers that still exist.

Implications and Recommendations for Conclusion 3

The large percentage of students not intending to pursue a career in agriculture should concern our profession. Even more concerning is the fact Hispanics tended to indicate their intention to pursue agriculturally related careers even less than non-Hispanic students. Given these students are enrolled in Agricultural Education, students we have an audience with, we must determine the factors leading to these students' decisions. Specifically, which factors lead some students to choose agriculture and some to choose other careers?

Secondary agriculture teachers should target the large number of undecided students that may exist in their programs, as once students make up their minds it may be

too late to change them. Frazee, Wingenbach, Rutherford, and Wolfskill (2011) found a workshop intervention could help increase the odds of students choosing an agriculturally-related major or career if they favorably viewed the actual workshop. More interventions as well as specific moves teachers can make in the classroom should be investigated.

Further studies should also address career choice over time to determine what factors might lead to shifts in students' intentions. Data from the focus groups in this study indicated parents and their satisfaction in an agriculturally related career might influence their son or daughter's plans, adding to the findings of Jones and Larke Jr. (2001). In fact, Mullinix, Garcia, Lewis-Lorentz, and Qazi (2003) found parents involved in an agriculture career tended to have a very positive view of agriculture and would encourage their children to pursue agriculture careers as well. Finally, follow up studies should be conducted to determine if students' intentions in high school actually come to fruition, as minority students may choose to enter a career in agriculture later in life (Jones & Larke Jr., 2001).

Conclusion 4

There are several intersecting benefits and challenges to Latino students' involvement in Agricultural Education. Students must persist through barriers, stereotypes, and incidents of microaggression in order to realize the benefits of being involved, though dynamic diversity plays a role. Moreover, *Rural Privilege* tends to provide certain rural students with opportunities not as readily available for most city students.

The qualitative focus groups helped describe the Latino experience in Agricultural Education at the four schools in the study. Caution should be exercised when generalizing the results to the larger population; however, the stories and experiences of the students who participated help present the perspective of what Latino students may experience as they navigate involvement in Agricultural Education.

The focus group at Washington High School yielded some interesting findings. This program was the only program where the students' comments resulted in the emergence of a theme that described the agriculture program as feeling like a family. Though similar comments were made in other programs, they were not to the degree of frequency and richness as they were in the Washington program. Students in this program described feeling supported and encouraged. A highlight from the conversation that stood out was Olivia's description of the officer election, where a student stumbled over a portion of their speech. Rather than laugh and discourage, she indicated students at the meeting "would be like, yeah, you got this. It is okay. You can do it" (Olivia, 44-46). Describing the family feeling, she said, "I've never seen that before, ever. And it is a really cool feeling" (Olivia, 230-232). Olivia's comments help describe the feel, but they were not unique. All of the students described the family-like aspect of the program.

As the agriculture program is a career academy program, it comes as no surprise that the *family feel* theme emerged. Students in the program described differences between their academy courses and agriculture courses, even going so far as indicating their agriculture course were a safe place to discuss race and ethnicity. In fact, one of the program's FFA teams (Ag Issues) focused their presentation on immigration reform. It seems the students' encouragement by their agriculture teachers, support by their peers,

the fact the program is highly respected in the community, and most of their classes are held together with other program students, helps develop this family-like feel.

In a study of nine career academy high schools over six years, Kemple and Snipes (2000) found (1) the programs increased the level of interpersonal support in career related activities and (2) increased the outcomes of high-risk students. Increasing interpersonal support would help meet students' relatedness need in Self-Determination Theory. The relatedness aspect of SDT was not directly assessed as part of my questionnaire, thus, a causal relationship cannot not be proposed; however, students' statements in the qualitative portion of the study tend to support a high degree of relatedness.

Given the career academy structure of the Washington agriculture program was unique in this study, it appears the unique theme may have emerged because of the way students *experienced* Agricultural Education in the academy format. Moreover, Hispanic students surveyed at Washington had the highest perceived competence scores among the schools in the study, and had the lowest amotivation scores. It is feasible to hypothesize the academy, and in turn, the family-feel of the program, resulted in more student motivation among Hispanic students.

In each of the schools studied, involvement in the agriculture program tended to vary by student. Important factors included encouragement by family, peers, and the agriculture teacher, related career interests, and enrollment by chance. Students also appeared to engage and become involved in the programs for a variety of reasons. It appears there is no magic bullet programs can implement to increase the involvement of Latino students, though most students did not experience barriers that *precluded* them

from participating. What was different, based on students' experiences, was *how* they were involved.

Diego's (Georgia High School) experience at the fair, standing out as a student of color, and being accused of stealing birds that were part of his project, caused him to participate differently, focusing most of his efforts on agricultural mechanics instead. Students seemed to be persistent in their involvement despite barriers and negative stereotypes that existed. Just as Diego altered his method of involvement, so did Gabe at Central High School. Despite his attempt to enroll in agricultural business, which was full, he persisted by enrolling in floral design, where he actually found benefit, indicating, "Oh, it also has a lot of transferable skills" (Gabe, 47).

Students at each of the programs indicated there was a need to change others' perceptions about agriculture and Latinos. Additionally, most of the students indicated they had inaccurate perceptions about the program prior to enrolling. Though isolated, some of the students indicated other incidents of microaggression, similar to Diego's. Enrique described how members on the non-Hispanic side of his own family participated in acts of microaggression, and Sara indicated the term 'beaner,' a very derogatory term used toward Mexicans, was still used by others around her. Through the students' statements, and despite the growth of Hispanics in Agricultural Education, we know these micro-aggressions still exist. As we know micro-aggressions can tend to occur without the perpetrator even being aware of their act (Sue et al., 2007), there is room for Agricultural Education to engage students in discussions related to this topic, which would be a likely fit in the leadership curriculum many programs teach.

The Hispanic students in the study also seemed to have some barriers to being involved to the same degree as their non-Hispanic counterparts. Olivia described how she didn't feel comfortable running for chapter FFA office because she was Mexican. "It was just scary because I did not think that I could do it because I was Mexican. It was super weird to be brown" (Olivia, 655-656). Statements like this should be of concern, particularly as more Latino students become enrolled in Agricultural Education. If we want them to freely participate at the same level as other students, we must concern ourselves with the stereotype threat (Aaronson et al., 1998) that exists in our Agricultural Education programs. We must act to change these perceptions in order to empower all students to succeed in Agricultural Education. When students begin to believe the stereotypes that exist against them, it is our duty as educators to act. In the case of Olivia, her agriculture teachers did not accept this stereotype, and encouraged Olivia, leading to her eventual election to office.

Another concern associated with the stereotype threat is the practice of students accepting the dominant culture beliefs about everyone having an equal opportunity to succeed, when this is known not to be the case. The results of this study indicate the concept may be rooted in at least two of the programs in this study. At Ocean High School, Ethan repeatedly describes the program as having "equal opportunities for everybody" (Ethan, 442). At Georgia High School, Adrian discussed how "I do not think there is a race problem" and "you were actually excluding yourself thinking it was a race problem when in reality it probably was not" (Adrian, 320-322, 337-340). Though other disagreed with this argument, the fact it still persisted in students' minds is troublesome.

Ideally, we will reach a point where ethnicity and race do not matter, but the overall results from this study do not support the statements of Ethan and Adrian.

Beyond the concept of ethnicity, *city versus rural* students appears to be an issue at one of the schools in the study, which may help explain the lower motivation scores at Georgia High School. The school draws its students from the city where it is situated, along with rural students from a fairly large geographic area. These students intersect in the agriculture program, and according to the students in this study, there are issues with opportunity and inequality between the two groups. The other schools in the study tended to draw from more heterogeneous groups, which may explain why the city and rural divide did not emerge in the discussion.

With regard to involvement at Georgia High School, Hispanic students tended to avoid leadership positions such as running for chapter office. While there appeared to be issues related to ethnicity as with the other schools in the study, there appeared to be additional challenges for students who were not from rural areas, despite the fact some still had family members involved in agriculture. Ricky described living in a small house in town, though his family does work in agriculture. Yet, he still agreed there was something to being from the rural setting. The students, rather than using the term rural, preferred to use the term *country*, though I will avoid the term as it may imply other cultural connotations.

The Georgia High School focus group participants indicated rural students as generally having several advantages such as: (1) parents or family members who were in the agriculture program, providing them with additional knowledge and connections; (2) financial means and space to engage in larger SAE projects and advanced agricultural

mechanics courses; (3) the fact the rural community tended to know each other well prior to students' enrolling in the agriculture program; and (4) rural students had more agricultural background and knowledge. Additionally, the students indicated these rural students were more likely to make racial or ethnic comments, particularly when they were concentrated in certain agriculture classes. Diego described how this concentration tended to be larger in the more advanced agricultural mechanics courses.

Given the increase in Hispanic enrollment in California took place so quickly, I returned to the literature to help validate and frame some of the students' comments about why this may have occurred. It appears dynamic diversity has begun to take hold in the programs in the study. Dynamic diversity, often referenced in affirmative action legal cases, exists when a certain critical mass of diversity is reached in a given setting (Garces & Jayakumar, 2014). Not simply a number, dynamic diversity also involves the "interactions of students in a particular context and under appropriate environmental conditions needed to realize the educational benefits of diversity" (p. 116). It appears the programs are well on their way to reaching this goal. Just as students indicated, more and more Hispanics are becoming enrolled and involved, and this, in turn leads to even more involvement and so forth. What does not appear to be occurring in each of the programs is involvement by Hispanics at the highest levels such as leadership positions.

Implications and Recommendations for Conclusion 4

Based upon conclusion 4 and the apparent advantages some rural students have in programs where there is a mix of city or urban students and rural students, I have proposed the definition *Rural Privilege* to describe the inherent structural advantages students from rural areas tend to have over students in urban areas. Given this study, I

only apply this definition in conditions where rural students intersect with city students in the same program, giving one privilege over the other. This differs from other discussions of rural privilege, for example, as described by Kathleen Budge (2006) who conducted a case study of three rural communities in southwest Washington. Her study examined these small rural communities; however, here I apply the term *Rural Privilege* to the advantage students who have several or all of the conditions, as listed previously: (1) students who have parents or family members who were in the agriculture program themselves, giving them additional knowledge and connections other students may not have; (2) having the financial means and space to engage in larger SAE projects and advanced agricultural mechanics courses, if applicable, where investment in large projects is costly; (3) part of a rural community where other students and their families tend to know each other prior to students' enrolling in the agriculture program; and (4) experiences and knowledge, particularly in production agriculture, that may give them an advantage over city students.

I am extremely careful not to assert *all* rural students are *Rurally Privileged*, rather, there are certainly conditions where very few of the defining characteristics may exist in certain rural settings. For example, as poverty is pervasive in certain rural areas, I would certainly not assert these students are privileged because of their being rural. Moreover, there are certainly city students who may have some of the advantages rural students have, for example, financial means, parents who are alumni of the agriculture program and who are connected with other families. Furthermore, I do not intend to tie this definition to race or ethnicity at this juncture. More research should be conducted to explore this concept in other settings with other ethnicities. I would, however, propose

Rural Privilege could exacerbate existing structural racism issues, as most of the people of color in this study were also from cities.

Future studies should further investigate the concept of *Rural Privilege*, including its prevalence and interaction with race and ethnicity. Moreover, are their conditions in certain agriculture programs where those who are not privileged can be provided with equal opportunities to succeed? For example, could a school farm facility help mitigate the advantage *Rurally Privileged* students have in terms of space? Could program funding grants and scholarships be expanded so city students could pursue the same SAE opportunities? Are their advantages city students have that rural students do not?

This study also supported findings from earlier studies that addressed perceptions and barriers to students' involvement in FFA, though in California, every student is a member of FFA. Martin and Kitchel (2014) found the barriers students experienced varied based on how active and involved they were in the FFA. While this study did not attempt to connect perceived barriers to level of involvement in the agriculture program, the results did show barriers and the interaction of many factors led to specific experiences at the individual student level. While some of the barriers Martin and Kitchel proposed did surface in the students' comments, every student's specific situation was unique. This falls in line with the intersectionality concept of LatCrit. How students experience Agricultural Education varies by student and the myriad internal and external factors surrounding them.

Given negative and inaccurate perceptions of agriculture and Latinos in agriculture, educational materials should be developed to help agricultural educators improve the outreach and marketing of their programs. Marketing should target all

stakeholders including prospective students and their families, who play an important role in their engagement in the program. Moreover, specific high school lessons should be developed to help students navigate the negative perceptions of being in the agriculture program. These materials should also reference race and ethnicity. Perhaps existing National FFA LifeKnowledge® curriculum could be adapted for this purpose.

LaVergne et al. (2011) recommended enhanced recruitment efforts and strategies that would help improve students of color perceptions of Agricultural Education, an recommended more pre-service teacher training on multicultural education and diversity. This study adds to those recommendations, as many students who entered the programs in this study had negative or inaccurate perceptions about the program and agriculture in general.

Despite Luft (1996) indicating teachers received their expertise in multicultural education from a variety of sources, and Talbert and Edwin (2008) finding most teacher education programs required diversity courses, it is still unclear as to practicing teachers' competency in terms of addressing diversity in their classrooms. Research should be conducted to assess the cultural competency of practicing secondary and post-secondary agricultural educators to determine what need, if any, exists for additional courses or training. This study did not investigate the teachers of Agricultural Education in the selected cases, though their insight may have proven valuable. What would they say given the results of this study? How aware of the issues facing Latino students in their programs are they? What would they suggest to address some of the issues presented? Warren and Alston (2007) attempted to address some of these questions in North Carolina and found teachers recommended more diversity competencies in agriculture

teacher education programs in addition to examining existing educational materials for diversity content. Similar studies should be conducted across the country, as teacher education programs tend to train teachers for their own geographical area.

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APPENDICES

APPENDIX A
PERCEIVED COMPETENCE AND SITUATED MOTIVATION SCALE
QUESTIONNAIRE



Thank you for your time! This survey will help determine your motivation for enrolling/participating in this agriculture class. It should take you about 5-10 minutes to complete. Please read the directions carefully and circle the most appropriate answer. Participation in this survey is completely optional. All responses will remain anonymous. DO NOT WRITE YOUR NAME ON THIS FORM.



SECTION 1:

Grade in school (select one by marking "X")

- 9th
 10th
 11th
 12th
 other

Gender (select one by marking "X")

- Male
 Female

Race/Ethnicity (select one by marking "X")

- Hispanic or Latino of Any Race
 White, not Hispanic
 American Indian or Alaska Native, Not Hispanic
 Asian, Not Hispanic
 Pacific Islander, Not Hispanic
 Filipino, Not Hispanic
 African American, Not Hispanic
 Two or More Races, Not Hispanic

What are your immediate plans after high school? (*Select one by marking "X"*)

- Vocational /Trade/Technical school
- Community/Junior College
- 4 year college
- Work
- Military

Will your future job relate to the field of agriculture? (*Select one by marking "X"*)

- Yes
- No
- Maybe



Please respond to each of the following items in terms of how true it is for you in the agriculture program. Try to base your responses on your *average* experience.

SECTION 2:

Please circle the number that best describes you at this time with regards to how you feel about your ability to be successful.

	Not at all true			Somewhat true				Very True
1. I feel confident in my <i>ability</i> to learn the material in the ag program.	1	2	3	4	5	6	7	
2. I am <i>capable</i> of learning the material in the ag program.	1	2	3	4	5	6	7	
3. I am able to <i>achieve my goals</i> in the ag program.	1	2	3	4	5	6	7	
4. I feel able to meet the <i>challenge of performing well</i> in the ag program.	1	2	3	4	5	6	7	

Survey continues on the next page!

SECTION 3:

Please circle the appropriate number that corresponds below for each question regarding why you are currently enrolled in the agriculture program.

	Corresponds not at all	Corresponds very little	Corresponds a little	Corresponds moderately	Corresponds enough	Corresponds a lot	Corresponds exactly
I am enrolled in the agriculture program...							
5. Because I think that agriculture is interesting	1	2	3	4	5	6	7
6. Because I am doing it for my own good	1	2	3	4	5	6	7
7. Because I am supposed to do it	1	2	3	4	5	6	7
8. There may be good reasons to be in the ag program, but personally I don't see any	1	2	3	4	5	6	7
9. Because I think that the ag program is pleasant	1	2	3	4	5	6	7
10. Because I think that the ag program is good for me	1	2	3	4	5	6	7
11. Because it is something that I have to do	1	2	3	4	5	6	7
12. I am in the ag program but I am not sure if it is worth it	1	2	3	4	5	6	7

13. Because the ag program is fun	1	2	3	4	5	6	7
14. By personal decision	1	2	3	4	5	6	7
15. Because I don't have any choice	1	2	3	4	5	6	7
16. I don't know; I don't see what the ag program brings me	1	2	3	4	5	6	7
17. Because I feel good when being in this class	1	2	3	4	5	6	7
18. Because I believe that this class is important for me	1	2	3	4	5	6	7
19. Because I feel that I have to do it	1	2	3	4	5	6	7
20. Though I am currently in the ag program, I am not sure it is a good thing to pursue it	1	2	3	4	5	6	7

This concludes the survey.

Thank you so much for taking the time to accurately share your responses!



APPENDIX B

INITIAL E-MAIL COMMUNICATION WITH SCHOOLS

Good Morning All, (and thank you [name] for the introduction)

As many of you know, the Hispanic (Latino/a, Chicano/a) population of California is growing rapidly, and over the last ten years, these students have been a large part of our growth in California Agricultural Education. As part of my doctoral dissertation, I am hoping to examine two things primarily: 1. What motivates students to enroll in Agricultural Education; and, 2. What is the involvement of Latino students in the total program (essentially how much are they involved as compared to other students and why). All of this information will be shared with each of you and you may use it as you wish in your program. I am hoping to conduct this study in [names of schools]

The first step is indicating if you would even be interested in participating. As far as responsibilities or burden to you, they would be few and I would do everything in my power to minimize.

1. Give a very brief survey to every student (not just Latino/a) in your program (this would take less than 10-15 minutes and could be passed out in class). I would work with you to create an alternative activity for those who choose not to participate or whose parents do not approve (more on this below). The survey would ask a few questions and students would circle an answer, giving us some information about why they chose to be in your program (this could be very useful to you in your recruitment and retention).
2. I would like to select (you would help me identify) about 5-7 students who identify as Hispanic/Latino and hold a brief focus group with them. This would be less than an hour and could take place during a lunch, before school, or after school. I would provide them with pizza or doughnuts or something like that as an incentive and thank you.

Know that the biggest hurdle to this research is each student needs parental consent to participate (I will work with each of you and your schools to get this done via a letter to parents)...I know this sounds like a headache but I will do everything in my power to avoid any disruption or inconvenience to you. This will also be no any cost to you. We will pay any postage fees or mailing.

I know this may sound like a lot, and I know how busy each of you are, but I am very passionate about this and believe that [school] can be part of the cutting edge research on this issue, there is much interest in this nationwide. Know that no school or student information would be reported, only summed results (which again would be given to each of you to use as you feel useful).

Step two, I am not sure of [district's] protocol for research. In some schools the principal makes this call, in others, it is the superintendent. I am working to determine this in EG (unless any of you are currently aware) but regardless it would be good to have a chat with your principal about this anyway. I would also be happy to speak with each of them individually or in person if necessary.

If you have read this far...I appreciate it greatly. Ag Teachers have little to no extra time. If you think this is a possibility, please let me know. I am happy to speak with each of you individually though a phone call to help provide more details if necessary. My first hurdle is getting your buy in and getting the appropriate level of approval from your principal or the district. The Oregon State University Internal Review Board (which is designed to protect human subjects in research, particularly students) will then review this proposal to ensure there is no risk to students.

Thank you all for your consideration. I look forward to hearing from each of you. Please do not hesitate to call if you would like to know more.

Respectfully,
Kris

APPENDIX C
RESEARCH PROPOSAL EXAMPLE

Examining the Latino Experience in California Agricultural Education:
A Mixed Methods Multiple Case Study

A Research Proposal for:

[name of school]

Presented By:

Mr. Kristopher M. Elliott, MS
[contact information]
Doctoral Candidate
Science Education
Oregon State University

Misty D. Lambert, PhD
[contact information]
Assistant Professor
Agricultural Education
Oregon State University

2. Purpose and Scope of the Project

The purpose of this study is twofold: First, the study will examine the motivation behind students' involvement in Agricultural Education. Students have many options in meeting high school graduation requirements and meeting UC a-g requirements – thus, it is beneficial to understand why some students choose to be involved in Agricultural Education. Second, within the Ag Ed program, students have the opportunity to participate outside of the classroom in FFA and Supervised Agricultural Experience Programs (SAE). As the state's Latino/Hispanic population continues to grow, their enrollment in Ag Ed programs has shown a dramatic increase – in some programs, they make up the majority of students. This study also seeks to examine the involvement, success, and post high school plans of students in the Agricultural Education Program. Particularly, the study will focus on Latino/Hispanic students, hoping to tell their story and lived experiences in the program. Does the culture of the program enhance their experience? Why do they choose to get involved (or not) in the activities beyond the classroom setting (FFA and SAE)?

3. Method of Study or investigation to be used

Once a school has been selected and upon receiving permission from the principal or designated administrator, the researcher will visit with each agriculture teacher to introduce the study, answer questions, and discuss the timeline. The researcher will work with each school and ag teacher to obtain informed consent or assent from each student (or their legal guardians) in the ag program. The ag teacher will identify the students who will be given consent forms and students who will be given assent forms using school data. The researcher will also provide detailed instructions on administering the brief questionnaire, and will work with the teacher to develop an alternative assignment to maximize instructional time for those students who wish not to participate in the questionnaire (the questionnaire should take no longer than 10 minutes to complete). The researcher contact information will be provided on both assent/consent forms so that parents and students can ask questions. The ag teacher will collect the completed anonymous surveys and return them to the researchers. The researcher will pay any postage fees.

For the second phase of the study, the lead ag teacher from each school will help identify approximately 7 students who identify as Hispanic/Latino/Latina/Chicano/Chicana and invite them to participate in a one hour focus group. The date and time will be scheduled at the convenience of the ag teacher and participating students. The researcher will administer the focus group. Though the researcher has been background checked as a former teacher in California, and has been background checked through employment at Oregon State University, the researcher encourages a neutral district official to be present during the focus group. Preferably, this would not be the ag teacher, as this may limit candidness in some of the students' responses. Alternatives may include another teacher, counselor or administrator. The researcher will work with the ag teacher to determine an acceptable observer. The focus group will be videotaped for transcription purposes, and

the researcher will capture field notes throughout the interview. All data will be maintained under password protection and will be reported absent of any personally identifiable information (**pseudonyms will be used for all staff, teachers, students, schools, or district**).

4. Extent of Participation expected of students and staff (Subject Pool / Participants)

This study will take place in district's Agricultural Education Program at [school] and include all of the school's agriculture students who opt in and whose parents/guardians have signed the informed assent form (or consent form if they are 18 or over). Participation in the study is completely voluntary. Each participating student will be asked to complete a brief questionnaire, which will help determine his or her motivation for enrolling/participating in the Agricultural Education Program. Demographic information will be collected on each survey in order to analyze the results by ethnicity and gender, though each student will remain anonymous.

With the help of the ag instructors, approximately seven students who identify as Latino/Latina/Hispanic/Chicano/Chicana will be asked to participate in a focus group with the goal of exploring their experience in ag education. Students will be asked to share their motivation for participation, involvement, and enrollment. The focus group should consist of a mix of male and female students. The focus group will not take place during class/instructional time, and students will be provided with snacks and refreshments. The focus group will be videotaped, however, the identity of each student will be protected in the final manuscript through pseudonyms. No personally identifiable information will be reported, and the data will be stored using password protected, encrypted files. Students may opt out at any time.

The high schools selected for this study were chosen due to their geographical similarities, student populations, and their settings (urban, rural, suburban, etc.). Additionally, the schools all have a large population of Hispanic students. (Note that other high schools in the [city] area will be participating as well. No school data will be compared or shared with other schools in the study.)

The students for the focus group will be valuable to the study based on the fact that Hispanic students make up a larger percentage of Ag Ed enrollment statewide than any other group. Though enrollment levels of Hispanic students has reached parity with Hispanic student enrollment in K-12 schools overall, it is unknown if their increase in *enrollment* has led to an increase in *involvement* in SAE and FFA activities. Moreover, Agricultural Education was designed and implemented at a time when Hispanic students did not make up a large percentage of student enrollment in California, thus, we assert that the time has come to investigate the experience of Hispanic students in Ag Ed. Is the culture of Agricultural Education simpatico with the broad mix of cultural identifies that exist in the Hispanic/Latino/Latina/Chicano/Chicana community? We hope to investigate this phenomenon and begin to shed light on students who will continue to become a larger part of Ag Ed in California.

The proposed research will allow quite a bit of autonomy for each high school. Once approval is granted for the study, each program will be given a set of instructions detailing the assent/consent process, as well as how to administer the brief motivation questionnaire (attached as an appendix to this document). This will take place at the convenience of the Agriculture teachers. These results will be sealed and mailed directly to the researcher. All data will be kept in locked cabinets until entered into a statistical database, which will be password protected to ensure privacy. The data will be analyzed using descriptive statistics and analysis of variance tests (ANOVA) in SPSS (statistical software program). This will take place during the first month of the study. The researcher will work with each school to develop an alternative assignment for those students who opt out so as to avoid the disruption of instructional time.

Upon completion of phase one, the lead ag teacher from each program (or department chair) will select 7 students who meet the criteria outlined in section 4. This purposeful selection process will help ensure students who are active in each program and whom are comfortable sharing their experiences. Though the teachers will assist with this selection, participation is completely voluntary. This will be outlined in the consent/assent form and stated orally before students will be allowed to participate in the focus group.

Once students are selected [omitted], the researcher will work to schedule the, one hour-long focus group session at [location]. These focus groups will be held at the convenience of the students, teachers, and school and will not take away from instructional time. The focus groups will be video recorded (this will be clearly stated on the assent/consent form). The video will only be used to transcribe the conversations during the focus group and will not be shown to anyone other than the researchers in order to protect student privacy. Once transcription is complete, the videos will be destroyed. Both phases should be complete during the spring term/semester, prior to the busy FFA Career Development Event/judging season.

5. Uses to which project results will be put

Though the enrollment of Hispanic/Latino/a students in California Agricultural Education programs has continued to rise, little is known as to these students' lived experiences in the Ag Ed programs. The results from this study will be used to determine approaches that are inclusive and effective for all students, though this study specifically investigates the needs of a certain student demographic. Results will be used to help share best practices and assist with developing practices that meet the needs of all students. This may include the improvement of teacher education programs that train Ag teachers who continue to be employed in more diverse settings.

6. Benefits to the School(s) or the district

The [name] District and [name] High School in the study is an example where the student population continues to become more diverse. While this study will benefit schools and programs nation-wide, [name] will benefit by receiving specific data that may help inform the practices within the Agricultural Education Program. The district has had a strong tradition of excellence with regard to the Ag Ed program, and the data from this study will help continue this success as the diversity in these programs continues to grow. It is important to note that the data may yield opportunities for the program to be more inclusive, but will also include best practices, given these programs are very successful currently.

7. Dissemination of Study Results

As stated previously, [school], faculty and staff, and students who participate in the study will remain confidential and will only be know to the researcher. Upon analysis of the data and results, only pseudonyms will be used to protect the anonymity of the district, schools, and individuals in the study. No personally identifiable information will be shared, made public, or reported. The anonymous results will be included in the dissertation of Kristopher M. Elliott, *Examining the Latino Experience in California Agricultural Education: A Mixed Methods Multiple Case Study*, as a requirement for the completion of the degree of doctor of philosophy in science education at Oregon State University. This dissertation will be available in the Oregon State University Library. [School] will receive copies of all study results.

Note:

- 1. The district's expressed approval for the research study outlined herein must still be approved by the Oregon State University Internal Review Board (IRB) for Human Subjects. Minor revisions to survey instruments may be required in order to protect the rights of human subjects. [School] will be informed of any modifications required by the board.***
- 2. The district, the schools, and participants WILL NOT BE IDENTIFIED in any results or publications. Pseudonyms will be used.***

(Sample letter of support, questionnaire and focus group protocol attached)

<District letterhead>

October 4, 2012

Oregon State University Internal Review Board
Office of Research Integrity
A312 Kerr Admin Building
Corvallis, OR 97331-2140

Dear Oregon State University Internal Review Board,

<Name> High School has received a request from Mr. Kristopher Elliott and Dr. Misty Lambert or Oregon State University to conduct a research project to examine student motivation with regard to enrolling in Agricultural Education at our school, and to examine the experience of Latino/Hispanic students in our Agriculture Program.

I understand this study will include a questionnaire, to be administered to all of our agriculture program students (who opt in and whose parents have completed an informed consent form). Moreover, I understand that the study will include a focus group of students who will be identified by our Agricultural Education instructor.

After reviewing this study, we are excited to work with your institution and with Mr. Elliott and Dr. Lambert on this project, and look forward to the outcomes of this study. If you need additional information related to our support of this project, please feel free to contact me directly by email at <insert email> or by phone <insert phone>.

Sincerely,

<First Last>
Principal, <name> High School

APPENDIX D
QUESTIONNAIRE INSTRUCTIONS

Questionnaire Phase: Every Ag Student

Here is everything. To summarize, here is what is attached. First, the survey (Final.Surveyunder18.pdf) that would be given to every ag student in class. The first page is an assent (meaning every student must fill it out prior to completing the survey regardless of age). You would collect these all at once. For every student under 18, there is a consent form (SurveyUnder18.pdf) that would need to be sent home and returned before they can fill out the survey. This form is also available in Spanish for those that need it (Span.Survey.Consentunder18.doc). Students should only fill out one survey even if they are in multiple classes. Students who opt out or who do not return a signed consent form cannot participate. They would need to do an alternative assignment during the 10-15 minute questionnaire. (New Horizons perhaps, let me know, I can develop something based on what is going on in class). I will send postage to you to send all of these forms back. If a student is absent, it is up to the teacher if they want to take the time to give them the form when they are back, no worries either way). If the teachers could account for who is absent vs. who did not obtain consent that would be great. Let me know how I can help here. When administering the questionnaire, explain to students that the questions are based on their impressions of the agriculture program, essentially what they feel about it. You may answer any questions they have, though the survey is fairly simple and has directions on it.

Focus Group Phase

Here, I am hoping for one focus group with 5-7 students total. These students should be fairly active, self-identify as Latina/o, and ideally be upperclassmen. To participate, there are two forms depending on age. For minors, please send home in English and Spanish (FocusGroupUnder18.pdf), (Span.FocusConsentunder18.doc) and for 18 and older please have the student fill out (FocusGroupOver18.pdf). Also, I need to work with you to schedule these as soon as possible. This will take one hour per group. I have attached a recruitment flyer for your use.

I know there are a lot of forms and this is probably a pain, but I really do appreciate it. We can chat on the phone about this as well if you have questions about this. I would also be happy to do a Skype with the department or record a video explaining things, whatever you think would

help and minimize the work or impact on the staff...I know how busy they are this time of year.

As far as the Questionnaire Phase, teachers can start as soon as they send forms home and get them collected. You are free to begin that phase, everything has been approved by IRB. Remember, I will pay all printing costs or I can print and send your way, just let me know. I'm trying to get moving on this as soon as feasible for you and your staff.

Let me know if this all makes sense or not? This is super awesome of you and the staff. I know this will help improve the program and all of AgEd in California. I hope all is well with everyone.



Oregon State University
Department of Agricultural Sciences
and Education

Research Study: Examining the Latino Experience in California Agricultural Education: A Mixed Methods Multiple Case Study

This is Research. If you meet the minimum qualifications listed below, we would like to speak with you about your experiences in Agricultural Education and FFA.

- Do you identify as Hispanic, Latina/Latino, Chicana/Chicano?
- Have you been enrolled in Agriculture for the last two years?
- Are you a Junior or Senior?

- Are you willing to spend an hour describing your time/experience in Ag Education?

If you are interested or have any questions, please contact the lead researcher:

[contact information]

Or see your Agriculture Teacher



APPENDIX E
CALIFORNIA FFA REGIONS

APPENDIX F
FOCUS GROUP PROTOCOL

Focus Group Interview Questions and Protocol

Introduction Statement:

Ice Breaker Activity (Name Tents)

Thank you all for participating in our focus group on an assessment of the Agriculture Program at your high school. We want to remind you of a few things before we begin. First of all, your participation in this study is completely optional. You may get up and leave at any time. You are welcome to share as much or as little as you like, and your responses will be reported anonymously using pseudonyms (names which are NOT your own). We ask that the conversations in this focus group will remain confidential by that we mean that after the focus group is over we ask that you do not talk to your friends, family or anyone else about what was discussed in the room or who said what. . We also ask you to be as truthful and share as much as you are comfortable sharing. The purpose of this study is to determine your experiences in the Agricultural Education program here at this high school. The focus group will last no more than an hour. Our questions will be broad, so feel free to elaborate if you wish. We would also like to remind you that this focus group will be video and audio recorded so we will be able to use the record to better prepare our final results. After our study is completed the recordings will be destroyed. Are there any questions before we begin? At this point I am going to ask if anyone is uncomfortable being part of this focus group? Now would be the time to indicate this and you are under no obligation to remain.

Ice breaker here.

Semi-Structured Focus Group Questions: (Other than the questions listed, only follow-up questions may be asked).

1. Please tell us a little about your positive experiences with the agriculture program here. What has been the most rewarding aspect or challenge of your involvement? Please tell us about the negative aspects of the agricultural program here? What has been the most difficult aspect?
2. What motivated you to sign up to be in the Agriculture Program in the first place – probe...? Just under ten years ago, there were very few Latina/o students in Ag Ed, and today involvement of Latinas/os is at record high levels, why do you think there was an increase in involvement?
3. In American society today, there has been a great deal of stigma and negative connection to agricultural fieldwork. Related to this do you ever feel pressure to be or not to be involved in the Agricultural Program? Probe: How do you cope with these pressures? Is this pressure different due to your ethnic background? Probe: Latina/ Latino?
4. Is Ag Ed/FFA a safe place to discuss the issues of race/ ethnicity or diversity? Do you feel you can be true to your own culture in the Agriculture Program? What about in your high school in general?

5. How do your peers who are not in aged Ag Ed treat you? How would you like to be treated? Why?
6. Do you think Latina/o students become involved (FFA, SAE) at the same levels as other groups of students? What do you perceive as some of the barriers? What could be some ways to increase their participation? What incentives could we put in place to encourage more Latino/a students to participate in FFA or SAE?
7. If you had a magic wand and resources were not a problem -- how would you, improve Agricultural Education to better serve Latino/a students? What could we do to increase the number of Latina's in the Agricultural Program?

Thank you for your participation in this focus group. We really appreciate your willingness to share. Please remember to keep your peers' comments confidential. Remember if you have any questions about this study please do not hesitate to contact the researchers. The contact information is located on your copy of the consent form.

APPENDIX G
IRB DOCUMENTATION

RESEARCH PROTOCOL

RESEARCH PROTOCOL February 17, 2014

1. Protocol Title: Examining the Latino Experience in California Agricultural Education: A Mixed Methods Multiple Case Study

PERSONNEL

2. Principal Investigator: Misty D. Lambert, PhD
3. Student Researcher(s): Kristopher M. Elliott
4. Co-investigator(s): N/A
5. Study Staff: N/A
6. Investigator Qualifications

The PI holds a PhD in Agricultural Education, is a current teacher educator, and has extensive experience in quantitative and qualitative methods. The student researcher is a doctoral candidate in Science Education, holds a MS in Agricultural Education, and has experience in both quantitative and qualitative methods, currently serving as a teaching assistant in a methods course. Additionally, the student researcher currently serves as an instructor in the Department of Agricultural Education and Agricultural Sciences. Both researchers have a strong background in agricultural education, which encompasses myriad FFA events, activities, and management. Moreover, both investigators have completed CITI ethics training. The student investigator worked in California Ag Education for nine years and has an intimate understanding of the curriculum, structure, and protocol of the program.

7. Training and Oversight

All questions, research techniques, and data analysis will be conducted by the student under the direct supervision of the PI. The PI will also ensure the student researcher follows the IRB protocol and ensure that all ethical, legal, and professional criteria are followed. The student has completed Citi training and an additional IST 520 course on responsible research. Additionally, the student assists with the teaching of a course (SOC 518, Qualitative Research Methods) which covers these ethical principals in human research, including confidentiality, tracking, and data collection. The PI will be present with no scheduled sabbaticals or leaves of any kind during the research program.

FUNDING

8. Sources of Support for this project (unfunded, pending, or awarded)
 - This study is unfunded.

DESCRIPTION OF RESEARCH

9. Description of Research

This research is part of a dissertation as a requirement for the degree of Doctor of Philosophy in Science Education. The purpose of this study is two fold: First, the study will examine the motivation behind students' involvement in Agricultural Education. Second, the study will focus on Latino/Hispanic



students, hoping to tell their story and lived experiences in Agricultural Education through focus groups. The specific objectives are: 1) Describe the students involved in the study; 2) Describe the overall student demographics in the study schools (provided via California's CBEDs data website and approved under IRB 5506, this is blinded data available on CA public website); 3) Determine agriculture program students' motivation and perceived competence using SIMs scale; 4) Determine the differences, if any, ethnicity and gender play in student motivation; and 5) Describe the experiences of Latina/o students enrolled in the agriculture programs of the four study schools.

10. Background Justification

As the United States continues to become more diverse (Arizona State, 2013), it is rapidly becoming more prudent and necessary that we ensure equality for everyone. Despite a growing population of people of color, we continue to witness oppression in everything from the business world to education. In education, inequalities continue to be pervasive, and many question how this can be the case given so much emphasis on educating all children. Ladson-Billings and Tate (2006) argue that the inequalities "are a logical and predictable result of a radicalized society in which discussions of race and racism continue to be muted and marginalized" (p. 11). The authors go on to propose three central propositions to inequality in schools: (1) Race continues to be a significant factor in determining inequality in the U.S., (2) U.S. Society is based on property rights, and (3) The intersection of race and property creates an analytic tool through which we can understand social (and, consequently, school) inequality (p. 12).

In agricultural education, an elective/science based education program with over 70,000 students enrolled in California, the last 10 years have included drastic changes in student enrollments. In 2003, most students in agricultural education were white, and enrollment did not match the demographics of the overall school population. But today, agricultural education enrollment by ethnicity essentially matches the ethnicity of all of California's secondary schools, with Hispanic students making up a larger percentage of Ag Ed enrollment statewide than any other ethnic group. Though enrollment levels of Hispanic students has reached parity with Hispanic student enrollment in K-12 schools overall, it is unknown if their increase in *enrollment* has led to an increase in *involvement* in SAE and FFA activities. Moreover, Agricultural Education was designed and implemented at a time when Hispanic students did not make up a large percentage of student enrollment in California, thus, we assert that the time has come to investigate the experience of Hispanic students in Ag Ed. Is the culture of Agricultural Education *simpatico* with the broad mix of cultural identifies that exist in the Hispanic/Latino/Latina/Chicano/Chicana community? We hope to investigate this phenomenon and begin to shed light on students who will continue to become a larger part of Ag Ed in California.

11. Multi-center Study

N/A

12. External Research or Recruitment Site(s)

Complete this section if recruitment or other study activities will occur via schools, medical centers, tribal reservations, international sites, listserves, via Registrars, etc. **Required** information includes:

Schools in Study (4 high schools):



- b) Name and role of appropriate authority from each site providing a letter of support or permission (when applicable):

- c) Name of each recruitment site: These schools were recruited based on their student demographics, agriculture program size, and location in the state. The researcher knows the administrators and teachers in each of these sites on a professional level, and each school site was eager to participate based on preliminary conversations.

13. Subject Population

- The quantitative phase of the study will consist of all secondary high school students enrolled in agricultural education at each of the four high schools, though the qualitative phase (focus groups) will be limited to Hispanic students. Hispanic students were chosen as they comprise the largest single ethnic group in California. The study will help to assess their experience in their agriculture program, as white students very recently dominated the programs' enrollment. Though Hispanic students have become the largest ethnic group in agricultural education, they do not participate in co-curricular activities, a vital component to agricultural education, at the same level as their white counterparts. This study will target Hispanic students to investigate this phenomenon and determine the culture and level of inclusiveness of the programs. Gender is not a selection factor in this study.
- Total target enrollment number: 2,000 students total for quantitative phase of study, with 28 students (7 per school) being selected for the focus group/qualitative phase.
- Description of any vulnerable population(s): The study will include children in both phases, ranging in age from 14-18+ years old. Students will be freshmen through seniors in high school. Students under the age of 18 will require parent guardian approval for each of the phases of the study they participate in. Students 18 or older will still be required to complete a consent form.
- Inclusion and exclusion criteria: All students enrolled in agricultural education in the four schools in the study will be included in the quantitative phase of the study. Each school has committed resources for any student who does not read English, and will assist with the questionnaire as necessary. Only English speaking students who self identify as "Hispanic" will be included as eligible for the focus group/qualitative phase of the study. Priority will be given to junior and senior students who have been involved in the agriculture program for two or more years. This will add to the richness of the focus group and ensure the students have adequate experience in the agriculture program.
- Recruitment: All students in each agriculture program will be offered the opportunity to participate in the quantitative portion of the study. Parents (students under 18) will be sent consent forms outlining the purpose of the study and opportunity to ask questions. Students 18 and older will be provided with consent forms and contact information for any questions they may have. Only students who have completed the consent/assent forms will be allowed to



participate in the study. For the qualitative phase, which will comprise a much smaller group of participants, recruitment flyers (attached) will be used along with announcements by the agricultural teacher. The flyers will include the researcher's contact information as well as the option to "see your teacher" for more information, as the agriculture is much more accessible to the students than the researcher. The teacher can provide assistance to the students if they have questions of the researcher. Once IRB approval is granted, consent forms and study information will be sent home to all students in the 4 agriculture programs. Forms to be sent home will be available in English and Spanish in order to accommodate parents who speak Spanish. All student forms will be in English, translation assistance for students is provided by the schools if necessary. Translated forms will be submitted after English forms are approved (quote for translation is attached). The forms will indicate the possibility of students' ability to participate in a focus group at a later date; however, the form will clearly state that an additional consent form will be required. Each agriculture teacher will collect signed forms and keep a record of which students are eligible/whose guardians have consented and who's have not. After 1-2 weeks or at the convenience of the school, the SIMS questionnaire will be distributed in class to those students who have signed consent forms (under 18)/assent (over 18) forms. Those who have not turned in forms or who have opted out will participate in an alternative standards based assignment. The researcher will work with each school to ensure the availability of an alternate assignment that fits with the current unit of instruction in each respective class. The assignment will be based on California Agriculture Education Core standards.

- The qualitative focus group flyers will be posted upon approval of the IRB in each school. Each agriculture teacher has agreed to post the flyers in prominent areas and announce in classes, making clear there are no incentives, the research is optional, the qualifications to participate, and the one hour time commitment. Moreover, the agriculture teacher will inform students and distribute additional consent and assent forms for those students who express interest. In order to protect student privacy, the agriculture teacher will help determine if the students meet the qualifications outlined for focus group participation. This includes a thorough understanding of the students' maturity level, involvement in the agriculture program, and those who have returned the appropriate consent/assent documentation.

14. Consent Process

- **Written consent.** Standard written informed consent forms will be obtained as part of this study. There will be one for the quantitative phase of the study, which involved the questionnaire, and one form for the focus group/qualitative phase. Assent forms will also be utilized as some students may be 18 or older.
- **Describe where and when consent will be obtained.** Consent forms will be sent home by the participating schools rather than the researchers in order to protect student identity. The participating agriculture teachers will keep records of the forms to determine the students eligible for participation in each phase of the study, and, once accounted for, all forms will be sent to the researchers for safe record keeping. The researchers will provide postage for the forms to be sent from each respective school.
- **Assessment of comprehension.** The researchers contact information will be provided on the consent forms as well as the introduction letter to provide parents/guardians the ability to ask questions related to the study. The ag teachers will also serve as a resource to the students as much as they are comfortable with.



- **Children.** Consent forms will be sent home to parents of students in the study. Only students with signed consent forms from their guardians (or students 18 or older who have signed assent forms) will be allowed to participate. The agriculture teachers at each school will keep record of all consent forms and assent forms to determine those eligible to participate in the study.
- **Non-English speakers.** Only English speaking students will be recruited for the focus group. Any non-English speaking students will be provided assistance from the school's existing language resource specialists during the quantitative phase, and all forms mailed home to parents/guardians will be in English and Spanish.
- **Signatures on a consent form. Consent form follows IRB template and includes all required sections. (Attached)**
 - Translator: A certificate of authenticity for translation of documents will be provided once the English version is approved by the IRB. A quote/proposal is attached.
- **No Adult subjects with diminished capacity to consent will be a part of this study.**

15. Assent Process

Things to consider when describing the assent process:

- The assent forms will be completed by every student in the study under 18 in addition to their parent/guardian's consent. The consent form is written at an age appropriate reading level, and will be explained by the agriculture teacher administering the survey.
- The California Certificated agriculture teachers will explain the purpose of the study, the assent form, and answer any questions of the students. A guide (attached) will be provided to each teacher to lead the assent and questionnaire processes.
- A written assent form will be used.
- If children enrolled in this study will reach the age of majority (18) before their study participation ends, they will be provided a consent form for the remainder of the study.

16. Eligibility Screening

There will be no screening process in the quantitative phase of the study, the focus group/qualitative phase screening process will be guided by the following criteria: Students who personally identify as Hispanic, Chicana/o, or Latina/o and who are Juniors or Seniors enrolled in the program for the last two years. To protect privacy, the agriculture teacher will assist the researchers in determining students who meet these qualifications.

17. Methods and Procedures

Once IRB approval confirmed, the researcher will visit with each agriculture teacher to introduce the study, answer questions, and discuss the timeline. The researcher will work with each school and ag teacher to obtain informed consent, consent, and assent from each student (or their legal guardians) in the ag program. The ag teacher will identify the adult students who will be given consent forms and children who will have consent forms sent home for guardian approval. All forms to be sent home will be in English and in Spanish. The researcher will also provide detailed instructions on administering the brief questionnaire, and will work with the teacher to develop an



alternative, California Agriculture Standards Based assignment to maximize instructional time for those students who wish not to participate in the questionnaire (the questionnaire should take no longer than 10-15 minutes to complete). The researcher contact information will be provided on both assent/consent forms so that parents and students can ask questions. Surveys will only be given to students who have returned the appropriate consent and assent forms. The ag teacher will collect the completed anonymous surveys and return them to the researchers along with consent and assent forms. The researcher will pay any postage fees.

For the second phase of the study, the lead ag teacher from each school will help identify approximately 7 students who self identify as Hispanic/Latino/Latina/Chicano/Chicana, have been enrolled in agriculture for the last two years, and who are juniors or seniors and invite them to participate in a one hour focus group. These students will be selected from those who willfully express interest to the agriculture teacher – flyers will be used to recruit students and the agriculture teacher may announce the opportunity in class. The date and time will be scheduled at the convenience of the ag teacher and participating students. Students (and their guardians if they are under 18) will be notified of the focus group date. The researcher will administer the focus group, which will be video recorded. Participants will be provided with refreshments during the one-hour session. Though the researcher has been background checked as a former teacher in California, and has been background checked through employment at Oregon State University, the researcher will require a neutral district official to be present during the focus group. This will not be the ag teacher, as this may limit candidness in some of the students' responses. Alternatives may include another teacher, counselor or administrator. The researcher will work with the ag teacher to determine an acceptable observer. The focus group will be video taped for transcription purposes, and the researcher will capture field notes throughout the interview. All data will be maintained in a locked cabinet and electronic data under password protection, and will be reported absent of any personally identifiable information (**pseudonyms will be used for all staff, teachers, students, schools, or district**). Students will be explained their rights to participate and/or opt out at any time prior to the focus group. Verbal assent will also be requested despite the parent or adult consent forms. Students will be explained the risks and asked to keep responses confidential. The schools that take part in this study will be provided final copies of the study results minus any potentially identifying information.

The time commitment for all students participating in the quantitative portion of the study is approximately 15 minutes. The time commitment for those students participating in the focus group/qualitative portion of the study will be an additional 60 minutes.

The data collected as part of the quantitative phase will be entered directly into SPSS for statistical analysis. The mean scores will be calculated for each of the SIM's subscales. Using the scales, motivation will be calculated by ethnicity and gender. An analysis of variance will be administered to determine differences, if any, in motivation by ethnicity.

Each focus group will be transcribed word for word using pseudonyms. Under the Latino Critical Theory, which emphasizes the intersectionality of a variety of factors and paints the experience through stories and the eyes of the participants, the data will be analyzed using an open coding process. Participant stories and quotes will be distilled into themes, which will be supported with thick, rich descriptions. The researcher will take care to protect the identity of students when selecting quotes, as certain information may identify a particular participant.

The data from both phases will be presented in manuscript form and made immediately available to



the schools that participated in the study.

Both phases of this study are included here for review and approval.

18. Compensation

There will be no compensation provided to the participants; however, refreshments will be provided to those students participating in the focus groups.

19. Costs

- N/A

20. Drugs or Biologics

- N/A

21. Dietary Supplements or Food

- N/A

22. Medical Devices

- N/A

23. Radiation

- N/A

24. Biological Samples

- N/A

25. Anonymity or Confidentiality

The students who participate in the quantitative phase of the study will remain anonymous. The researchers will have no way of tracing the responses back to an individual student. In the focus group/qualitative phase, student information will remain confidential. Pseudonyms will be used in the focus group transcripts and all reported data and findings. All video/audio will be stored on a password protected computer system in digital format. Only the researchers will have access to this data. Once safely stored on a computer, the video will be erased from the recording devices. This will take place in 24 hours or less after each focus group interview. We will ask members of the focus group to maintain the confidentiality of comments made during the discussion. However, there is still a risk that comments some students make during the discussion may be shared outside of the group. There may be some discomfort among some participants during the focus group, but it is not expected to be any more than a normal group setting where a discussion takes place. Audio/Video data and survey data will be kept and maintained for three years after the completion of the study on the PI's computer, which is password protected. No direct identifiers will be recorded or stored. No links between study code numbers and direct identifiers will be maintained after data collection as this is not necessary for the study; this information will not be provided to anyone outside of the research team. To protect the participants' identity, the researchers will NOT provide coded or de-identified data and/or samples to anyone outside of the research team. Consent forms will be stored in a locked cabinet and maintained during the duration of the study. Based on the topic and objective of the study, it is unlikely that information will surface requiring mandated reporting; however, the researchers understand they are



Mandated Reporters, and will act accordingly. The agriculture teachers and school officials who will be present to supervise the study are California Mandated Reporters as well.

26. Risks

- The risks to participants in this study are not expected to be any more than a normal high school group setting where a discussion takes place.
- We will ask members of the focus group to maintain the confidentiality of comments made during the discussion. However, there is still a risk that comments students make during the discussion may be shared outside of the group. There may be some discomfort among some participants during the focus group, but it is not expected to be any more than a normal group setting where a discussion takes place
- Though the focus group participants will be known to the researchers, there is no known risk associated with a breach of confidentiality. Participants involved in the quantitative portion of the study will not be known to the researchers.

27. Benefits

This study will help determine students' motivation for enrolling and participating in Agricultural Education and help explain their experiences in their agriculture program as Latina/o students. This information may help improve the overall effectiveness of agriculture programs throughout the country and provide strategies to help insure inclusiveness for all students, particularly Latina/o students. The study is not designed to benefit individual participants directly.

28. Assessment of Risk: Benefit ratio

The study involves minimal risk of participants, such as a breach of confidentiality among the focus group participants; however, the benefits, such as ensuring an equitable and inclusive agriculture program, what that entails, and telling the story of the largest demographic group involved in agricultural education in California has great benefits. The data collected will benefit each school in the study, agricultural education as a whole in California, and may even benefit other states who are experiencing a shift in their own student demographics. Overall, this is a study with great potential benefit to many and very minimal risk to very few.

STUDY ID
6159

Notification Type	APPROVED		
Date of Notification	3/25/2014		
Study Title	Examining the Latino Experience in California Agricultural Education: A mixed method multiple case study		
Principal Investigator	Misty Lambert		
Study Team Members	Kristopher Elliot		
Submission Type	Initial Application		
Level	Expedited	Category(ies)	6, 7
Number of Participants	2000 <i>Do not exceed this number without prior IRB approval</i>		
Waiver(s)	None		
Risk Level for Children	§46.404 minimal risk		
Funding Source	None	Proposal #	N/A
PI on Grant or Contract	N/A		

The above referenced study was reviewed and approved by the OSU Institutional Review Board (IRB).

Approval Date: 3/25/2014

Annual continuing review applications are due at least 30 days prior to expiration date

Expiration Date: 3/24/2015

Documents included in this review:

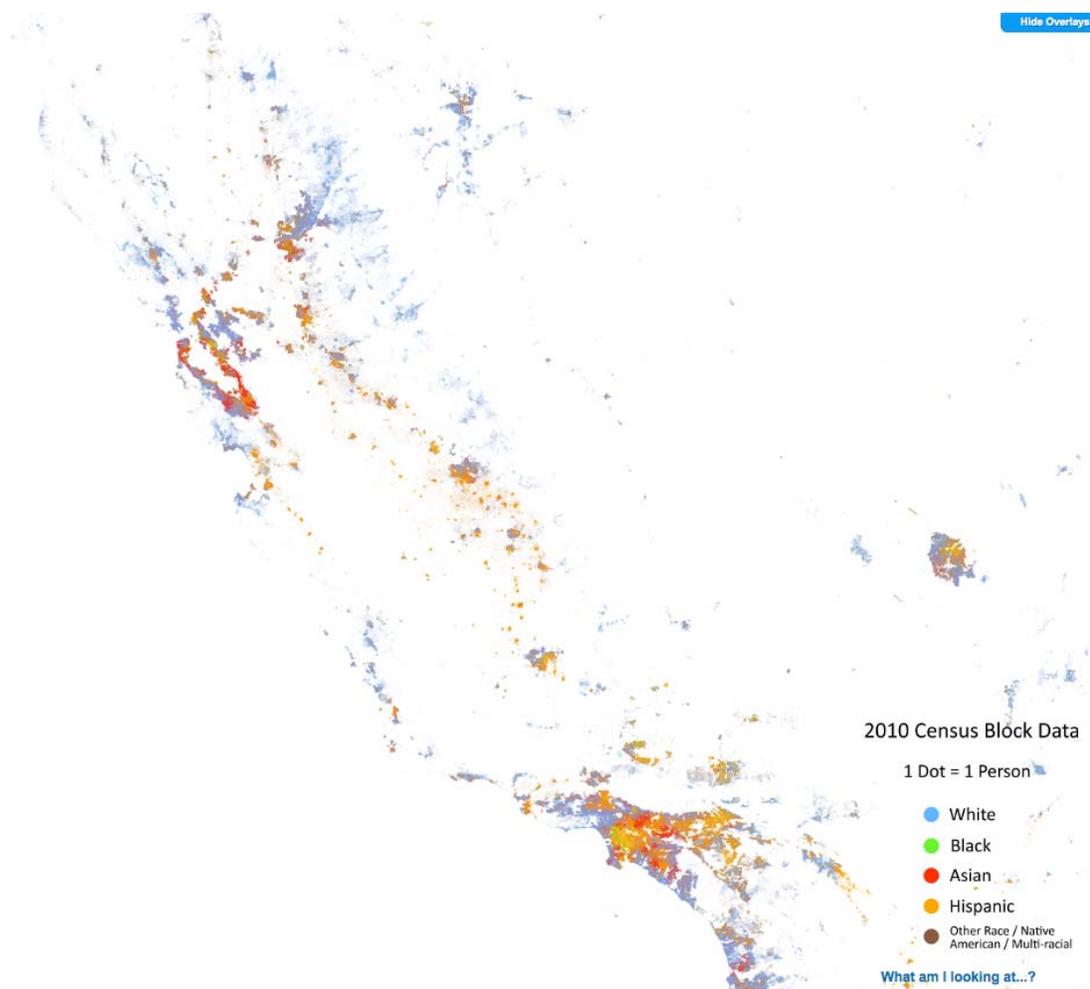
- | | | |
|--|--|--|
| <input checked="" type="checkbox"/> Protocol | <input checked="" type="checkbox"/> Recruiting tools | <input type="checkbox"/> External IRB approvals |
| <input checked="" type="checkbox"/> Consent forms | <input checked="" type="checkbox"/> Test instruments | <input type="checkbox"/> Translated documents |
| <input checked="" type="checkbox"/> Assent forms | <input type="checkbox"/> Attachment A: Radiation | <input type="checkbox"/> Attachment B: Human materials |
| <input type="checkbox"/> Alternative consent | <input type="checkbox"/> Alternative assent | <input type="checkbox"/> Grant/contract |
| <input checked="" type="checkbox"/> Letters of support | <input type="checkbox"/> Project revision(s) | <input type="checkbox"/> Other: |

Comments:

Principal Investigator responsibilities for fulfilling the requirements of approval:

- All study team members should be kept informed of the status of the research.
- Any changes to the research must be submitted to the IRB for review and approval prior to the activation of the changes. **This includes, but is not limited to, increasing the number of subjects to be enrolled.**
- Reports of unanticipated problems involving risks to participants or others must be submitted to the IRB within three calendar days.
- Only consent forms with a valid approval stamp may be presented to participants.
- Submit a continuing review application or final report to the IRB for review at least four weeks prior to the expiration date. Failure to submit a continuing review application prior to the expiration date will result in termination of the research, discontinuation of enrolled participants, and the submission of a new application to the IRB.

APPENDIX H
CALIFORNIA DEMOGRAPHIC MAP



Source. Cooper Center Demographics. Retrieved from <http://demographics.coopercenter.org/DotMap/index.html>

APPENDIX I
RECOMMENDATIONS FOR FUTURE RESEARCH

Recommendations for Future Research

Based upon the findings and conclusions of this study, the following areas of research are recommended in order further this line of research.

1. Investigate ways to target students of color for agricultural education who are undecided about their future career plans.
2. Conduct similar studies involving the *relatedness* aspect of Self-Determination Theory.
3. Conduct similar studies involving other races and ethnicities in Agricultural Education.
4. Conduct similar studies in schools where the demographics of the agriculture program do NOT match those of the school – in situations where the agriculture program is more diverse AND less diverse.
5. Determine the relationship, if any, between the ethnicity of the agriculture teacher, their cultural competency, and students' motivation levels.
6. Determine the factors leading to students' decisions to choose or not choose a career in agriculture, and compare the findings to students' ethnicity. Do factors vary by ethnicity? How do students' career plans evolve or change over time?
7. Determine the frequency of how often students' career plans in high school actually come to fruition.

8. Continue to explore the concept of *Rural Privilege* in other settings and including various school settings and investigating the connection to ethnicity and race. Are there ways to help give all students the same opportunities to succeed?
9. Conduct similar studies in other states, both where affiliation membership is present and where it is not. Does affiliation impact motivation and involvement? Are there other states experiencing or near the tipping point in terms of *dynamic diversity* (Garces & Jayakumar, 2014)?

