

University of Central Florida

STARS

Electronic Theses and Dissertations, 2020-

2021

An Exploration of Enrollment and Graduation Rates As A Result of Title V Funding at Hispanic-Serving Four-Year Universities

Kelly D'Agostino

University of Central Florida



Part of the [Educational Leadership Commons](#)

Find similar works at: <https://stars.library.ucf.edu/etd2020>

University of Central Florida Libraries <http://library.ucf.edu>

This Doctoral Dissertation (Open Access) is brought to you for free and open access by STARS. It has been accepted for inclusion in Electronic Theses and Dissertations, 2020- by an authorized administrator of STARS. For more information, please contact STARS@ucf.edu.

STARS Citation

D'Agostino, Kelly, "An Exploration of Enrollment and Graduation Rates As A Result of Title V Funding at Hispanic-Serving Four-Year Universities" (2021). *Electronic Theses and Dissertations, 2020-*. 844.
<https://stars.library.ucf.edu/etd2020/844>

**AN EXPLORATION OF ENROLLMENT AND GRADUATION RATES AS A RESULT
OF TITLE V FUNDING AT HISPANIC-SERVING FOUR-YEAR UNIVERSITIES**

by

KELLY D'AGOSTINO

B.A. University of Wisconsin-Madison, 2001

M.P.A. University of Georgia, 2003

A dissertation submitted in partial fulfillment of the requirements
for the degree of Doctor of Education
in the Department of Educational Leadership and Higher Education
in the College of Community Innovation and Education
at the University of Central Florida
Orlando, Florida

Fall Term
2021

Major Professor: Thomas D. Cox

ABSTRACT

While the Latinx population continues to grow faster than any other racial population in the United States, Latinx students are graduating from four-year institutions at a rate 12 percent lower than their White peers (Excelencia in Education, 2020b). As first defined in 1992 by the Higher Education Act reauthorization, Hispanic-serving institutions (HSIs) are accredited, degree-granting, non-profit institutions with undergraduate populations made up of at least 25 percent Latinx students. The role of HSIs is important because the majority (66 percent) of Latinx students enrolled in college attend an HSI (Excelencia in Education, 2019). The problem under investigation is that HSI funding that is meant to expand educational opportunities and improve educational attainment for Latinx students may be being utilized by institutions instead to supplement their budgets for programs that do not directly help Latinx students. The purpose of this study was to determine whether the receipt of Title V funding by four-year universities influenced Latinx student enrollment and graduation rates. Two research questions guided this study to determine the influence of Title V funding on enrollment and graduation rates of Latinx students at HSIs. The first question examined the relationship between enrollment and graduation rates and whether an HSI received Title V funding. The results of the independent *t*-tests found that there were no significant differences in Latinx enrollment or graduation rates between those HSIs that received Title V funding and those that did not receive Title V funding. The second question examined the change in enrollment and graduation rates for Latinx students between the first and last year of the Title V grant for those funded institutions. The results of the dependent *t*-test indicated that there was a significant difference in both Latinx enrollment and graduation rates between the first year of an institution's Title V grant funding period and the last

year of an institution's Title V grant funding period. The statistically significant growth in graduation rates for Latinx can be seen as an encouraging sign that institutions' use of Title V funding is influencing the desired student population.

Keywords: Hispanic-serving institution (HSI), Latinx, graduation rates, enrollment

ACKNOWLEDGMENTS

As I near the end of this doctoral journey, I am especially grateful to my chair, Dr. Thomas Cox. Your encouragement and support were invaluable, especially as I wrote my dissertation with the added stress and unique circumstances of a global pandemic. You were always available to me for questions and feedback, even though I know you had so many other students to assist as well. To my committee members, Dr. M.H. Clark, Dr. Nancy Marshall, and Dr. Michael Preston, not only was your dissertation feedback incredibly helpful, but I am also grateful for the time I was able to spend in classes with each of you.

I would also not have completed this degree without my family. My parents, Alan and LuAnn Butkiewicz, instilled in me the importance of education from a young age and have continued to provide me with their love and support throughout my time in higher education. To my sister, Lisa Stubberud, for being my confidant, and to Chris D'Agostino for providing me the opportunity to pursue this degree. Finally, I want to thank my children: Autumn (14), Bryce (10), Dane (8), and Shea (5). I know that completing this degree meant that I had to spend precious time writing papers and less time throwing footballs and playing games, but I hope you know how much I love you all.

TABLE OF CONTENTS

LIST OF FIGURES	vii
LIST OF TABLES	viii
CHAPTER ONE: INTRODUCTION.....	1
Background of the Study	1
Statement of the Problem.....	2
Purpose of the Study	3
Significance of the Study	4
Definition of Terms.....	5
Theoretical Framework.....	6
Research Questions.....	8
Assumptions, Delimitations, and Limitations.....	9
Organization of the Study	9
CHAPTER TWO: LITERATURE REVIEW.....	11
Overview.....	11
Demographic Shifts in the United States	11
Immigration Policy in the United States.....	12
Natural Increase in the Hispanic Population.....	13
Dispersal of Hispanic Population.....	14
Demographics in Education	16
Implications of Demographics	16
Hispanic-Serving Institutions.....	17
History of HSIs	17
Minority-Serving Institutions.....	18
HSIs' Ability to Serve Latinx Students	19
Latinx College Access	22
Student-Level Characteristics	22
High School Characteristics.....	24
State-Level Characteristics	25
Undocumented Students	25
Latinx Student Outcomes at HSIs.....	26
Recommendations to Increase Student Access and Success	27

Public Higher Education Funding.....	28
Tuition and Fee Increases	29
Performance-Based Funding.....	30
Federal Funding	32
Social Construction of Target Populations	33
Description of Theory	33
Application of Theory.....	34
CHAPTER THREE: METHODOLOGY	42
Overview.....	42
Research Design.....	42
Selection of Participants	42
Data Collection Methods	43
Data Analysis	45
Summary.....	46
CHAPTER FOUR: RESULTS	47
Overview.....	47
Research Question One: Comparison of Latinx Outcomes by HSI Funding Status.....	47
Research Question Two: Comparison of Latinx Outcomes Over Grant Period.....	49
Summary	50
CHAPTER FIVE: DISCUSSION.....	52
Overview.....	52
Discussion of the Findings.....	52
Summary of Findings.....	53
Connection of Results to Theoretical Framework	53
Connection of Results to Existing Literature.....	54
Limitations	55
Implications For Practice	56
Recommendations for Further Research.....	58
Summary.....	59
APPENDIX: IRB LETTER	60
REFERENCES	62

LIST OF FIGURES

Figure 1: <i>Social Construction of Target Populations</i>	35
--	----

LIST OF TABLES

Table 1: <i>Hispanic Enrollment and Graduation Rates by Funding Status</i>	48
Table 2: <i>Hispanic Enrollment and Graduation Rates During First and Last Years of Grant</i>	50

CHAPTER ONE: INTRODUCTION

Background of the Study

Population projections from the U.S. Census Bureau (2020) estimate that 66 percent of the total population increase between 2016 and 2060 will be due to an increase in the Latinx population. The term “Latinx” is used throughout this document as a gender-neutral form of Latino/a. While the Latinx population continues to grow faster than any other racial population in the United States, Latinx students are graduating from four-year institutions at a rate 12 percent lower than their White peers (Excelencia in Education, 2020b). While enrollment of Latinx students increased 17 percent from 2000 to 2016, six-year graduation rates of Latinx students increased less than 10 percent between the 1996 starting cohort and the 2011 starting cohort (NCES, 2018a; NCES, 2018b). While six-year graduation rates in the 2011 starting cohort for White students marked 64 percent, and Asian students at a rate of 73 percent, Latinx students only graduated from college at a rate of 55 percent (NCES, 2018b).

As first defined in 1992 by the Higher Education Act reauthorization, Hispanic-serving institutions (HSIs) are accredited, degree-granting, non-profit institutions with undergraduate populations made up of at least 25 percent Latinx students. The role of HSIs is important because the majority (66 percent) of Latinx students enrolled in college attend an HSI (Excelencia in Education, 2019). In order for institutions to be recognized as an HSI, they must apply to the U.S. Department of Education, and approved institutions are eligible for grant funding from the federal government to assist with programs supporting Latinx students (Eligibility Designations and Applications for Waiving Eligibility Requirements, 2019). Out of 2,391 public and private four-year institutions receiving federal funding in the United States, only 251 of the institutions

(10 percent) have met the qualifications to receive Title V funding in 2020 (Eligibility Matrix, 2020). In 2019, 43 institutions (including two-year and four-year, public and private) were awarded new Title V grants, averaging \$537,000 per institution for a total of over \$24 million. Each new Title V grant is provided for a five-year period. Institutions applying for Title V funding are required to first meet eligibility requirements established in the HSI definition in the original 1992 Higher Education Reauthorization Act. In addition to institutions meeting a 25 percent Latinx undergraduate threshold, they must also meet two additional criteria to be considered eligible. The first criterion requires institutions to enroll needy students, as defined as a substantial percentage of enrolled students receiving federal Pell grants. The second criterion requires institutions to spend less on educational and general expenditures than similar institutions. Once an institution meets these criteria and is designated as eligible by the U.S. Department of Education, it can then apply for Title V funding. An invitation for Title V applications is posted in the Federal Register and applications are accepted at the beginning of each calendar year.

Statement of the Problem

HSI funding that is meant to expand educational opportunities and improve educational attainment for Latinx students may be being utilized by institutions instead to supplement their budgets for programs that do not directly help Latinx students. While Title V funding is intended to increase the ability for institutions to serve Latinx students, there is evidence that Latinx students are ancillary recipients of Title V funding rather than direct beneficiaries (20 U.S. Code § 1101b; Vargas & Villa-Palomino, 2019). Research by Vargas and Villa-Palomino (2019) found Latinx students were not a central part of proposed initiatives in 85 percent of Title V grant abstracts sampled. Vargas and Villa-Palomino (2019) also found that in a minority of

awards (4 percent), institutions requested Title V funding for programs that were likely to not benefit Latinx students. Though the program description for the Developing Hispanic-Serving Institutions Program (DHSI) specifically states that grants are to expand opportunities and improve educational attainment for Latinx students (20 U.S. Code § 1101a), researchers found that most proposals were colorblind (Vargas and Villa-Palomino, 2019).

Because institutions may not be utilizing Title V funds towards programs that directly impact Latinx students, it is of no surprise that Title V funds have not been shown to clearly provide Latinx students with improved educational outcomes (Perez, 2020). Research by Perez (2020) found HSIs that were awarded Title V funding between 1999 and 2012 were associated with an increased percentage of bachelor's degrees awarded to Latinx students but were not a significant predictor of increased graduation rates during the same time frame.

Purpose of the Study

The purpose of this study was to determine whether the receipt of Title V funding by four-year universities influenced Latinx student enrollment and graduation rates. The study examined enrollment and graduation rates of Latinxs from the 2019-2020 academic year to determine if there was a statistically significant difference between HSIs that received Title V funding and those which did not receive funding. Additionally, the study examined enrollment and graduation rates of Latinx students who attended Title V-funded HSIs during the year prior to the receipt of the initial Title V funding, as well as in the final (fifth) year of Title V funding to see if there was a statistically significant increase over the grant period. The study reviewed those Title V-funded HSIs with grants ending between 2014 and 2019.

This study bridged a gap in the existing literature. The only study that has examined similar variables used data from 1999-2012 (Perez, 2020). While the number of HSIs have

tripled over the last 25 years, the majority of HSIs have only been established within the last decade (Excelencia in Education, 2020a). In the 2010-2011 academic year, the number of HSIs surpassed 300, but there were 539 HSIs by the 2018-2019 academic year, which is an increase of 73 percent in just nine years (Excelencia in Education, 2020a). The growth in institutions meeting the HSI enrollment threshold of Latinx undergraduates in turn increases the number of institutions potentially eligible for Title V funding. Not only has the population increased since 2012 (i.e., currently 251 HSIs are eligible for funding) but there is also more diversity in the population by geographic location, as only 14 states had HSIs in 1994 compared to 27 states in 2019 (Excelencia in Education, 2020a).

Significance of the Study

The significance of the study contributes insight to both policy makers who monitor and provide funding to this program, as well as institutions receiving Title V funding. On the whole, the federal government provides support to individual students through loan and grant programs, while states provide support for operations of institutions (Pew Research Center, 2019). States bear the primary responsibility for funding higher education, with states contributing four times the amount as the federal government (Archibald & Feldman, 2006). In many states, declining higher education appropriations have been supplanted with increasing Medicaid budgets due to expansions in eligibility (Kane, Orszag, & Apostolov, 2005). Institutions have recognized the need to become more innovative out of necessity by pursuing new revenue streams (Eddy, 2010). In 2017, self-supporting operations revenue made up 23 percent of total revenues for public institutions (Pew Research Center, 2019).

For most HSIs, the designation was not a benchmark that was actively pursued. Rather, the 25 percent threshold of Latinx students required for HSI status was garnered through

demographic shifts and population growth (Garcia, 2017). Once this status was reached, these institutions were eligible to apply for Title V funding at a time when institutions continue to look for funding sources (Eddy, 2010). The results of this study are important to institutions because, while funding for all students is important to keep the organization operational, this funding is intended to benefit Latinx students (20 U.S. Code § 1101a). Without measurable gains in performance indicators for Latinx students, institutions are not meeting expectations of the funding.

For policy makers, the results of this study can be used to ensure that program funding is being utilized for its intended purpose. The intent of Title V funding is to enhance the educational opportunities of Latinx students (20 U.S. Code § 1101b). Politically, there has been a declining will to fund public higher education (Gordon, 1996; Kyle, 2005). Public colleges and universities are now seen by many as a government agency that needs to be constantly monitored to ensure accountability (Johnstone & Marcucci, 2010). Likewise, increasing higher education budgets can make policymakers skeptical of the need for such budgets (Johnstone & Marcucci, 2010). Ensuring that funds are being spent for their intended purposes could allay concerns that higher education institutions are wastefully spending taxpayer dollars.

Definition of Terms

The following terms are used throughout this study:

12-month unduplicated headcount enrollment: Student count by race/ethnicity, gender, and level of student for those students enrolled during the reporting period of July 1 to June 30 (NCES, 2021).

Enrollment rate: Percentage of students of a given race/ethnicity based on the total 12-month unduplicated headcount enrollment at an institution (NCES, 2021).

Four-year institution: A postsecondary institution that offers programs of at least four years duration (NCES, 2016).

Graduation rate: Calculated percentages of students who graduate or complete their program within a specified timeframe (NCES, 2016).

Hispanic-serving institution (HSI): An institution of higher education that is an eligible institution and has an enrollment of undergraduate full-time equivalent students that is at least 25 percent Hispanic students (20 U.S. Code §1101a).

Latinx: Relating to people of Latin American origin or descent (used a gender-neutral or non-binary alternative to Latino or Latina) (Vargas & Villa-Palomino, 2019).

Theoretical Framework

Although the Latinx population continues to increase, the representation of Latinxs in positions of power is deficient (Casellas, 2010). Schneider and Ingram (1993) argue that social constructions of target populations can shape policy agendas. The social construction of a population relates to both the identification of shared characteristics that distinguish a population from others, as well as the assignment of specific values to the population's characteristics (Schneider & Ingram, 1993). Populations that are seen as beneficial tend to have higher control over policy agendas and therefore, are more likely to be beneficiaries of positive policy changes (Schneider & Ingram, 1993).

The problem under investigation is that HSI funding that is meant to expand educational opportunities and improve educational attainment for Latinx students may be being utilized by institutions instead to supplement their budgets for programs that do not directly help Latinx students. There are two issues related to social constructions of target populations that could prevent Title V funding from getting to the students for whom it is intended. First, Latinxs are an

underrepresented group in both Congress and state legislatures (Liang, 2018; Wallace, 2014). While comprising more than 15 percent of the U.S. population, Latinxs only make up six percent of the total members of the U.S. House of Representatives (Wallace, 2014). Similarly, in state legislatures, growth in legislative representation has not kept pace with the Latinx population growth (Casellas, 2010). In determining representation, there is some argument as to which residents should be included in the population figures (Wallace, 2014). U.S. Census Bureau numbers are supposed to include all residents, while some scholars argue that non-voting members of the population, due to residency status, should not be included (Wallace, 2014). Because Latinxs have a larger number of unauthorized immigrants than other ethnic groups, there are more residents who are not included in the formation of policy (Casellas, 2010). Further, Latinx populations tend to vote in historically low numbers, contributing to the likelihood that Latinxs are not helping to get each other elected as may be expected (Casellas, 2010). Due to these potential limitations on representation of Latinxs, there may be less concern by policymakers to ensure that Title V funding is reaching the Latinx student population. Therefore, institutions may be able to spend funds with more flexibility than was originally intended by the law.

Another issue related to social constructions of target populations is the negative connotation that is associated with Latinxs in popular media due to national immigration policy discussions (Liang, 2018). In local print media, stories involving Latinxs overwhelmingly focused on one of two topics: immigration or crime (Sui & Paul, 2017). In comparison to all other ethnic groups, Latinxs are significantly more likely in local news to be portrayed negatively (Sui & Paul, 2017). Latinxs, specifically, have been socially constructed as a threat to Anglo-American culture (Chavez, 2013). Repeated exposure over time to these negative

stereotypes can influence our perceptions about racial and ethnic groups (Gilbert & Hixon, 1991). Moreover, Latinxs themselves may begin to activate these negative portrayals and this could negatively impact the way they portray themselves (Sui & Paul, 2017).

For the purpose of this research, the social constructions of target populations theory served as a framework for understanding the policy agenda behind the HSI designation and Title V funding mechanism. Social constructions matter in terms of policy implementation because they can influence who will actually see the benefits of a policy (Duncheon, 2020). In terms of Title V funding, federal legislators have enacted the laws to provide funding and delineate eligibility guidelines for institutions, but once an institution receives Title V funding, it is up to the institution to ensure that Latinx students are provided benefits in accordance with the original laws' intent.

Research Questions

The research questions for this study include the following:

1. Is there a difference in enrollment rates or graduation rates for Latinx students attending Hispanic-serving institutions in the 2019-2020 academic year between those HSIs receiving Title V funding and those HSIs not receiving Title V funding?
2. Is there a change in enrollment rates or graduation rates of Latinx students at Title V-funded HSIs between the beginning of the 5-year grant period and the end of the 5-year grant period for those institutions with grant periods ending between 2014 and 2019?

Assumptions, Delimitations, and Limitations

This study included the following assumptions: (a) institutional information provided to the Integrated Postsecondary Educational Data System (IPEDS) was accurate and complete; and (b) grant applications provided by the Department of Education were accurate and complete.

For purposes of this study, only four-year HSIs were analyzed in order to perform an even comparison of graduation rates. Additionally, the time frame that was chosen by the researcher was five-year grants that began between 2009 and 2014. These dates were chosen to allow to analysis of graduation rates through the end of the five-year grant period.

Two limitations, defined as being outside of the control of the researcher, were identified for this study. First, there are many variables outside of the scope of this study that could impact graduation rates. These factors include, but are not limited to, tuition and fee changes, changes in admission policies, changes in financial aid policies, changes in the mix of traditional versus non-traditional students, and changes in the faculty/student ratio (Hunsaker & Thomas, 2013). Second, graduation rates within a certain time frame (four years or six years) may not be the best measure of Latinx college success due to the findings that they are less likely than other student groups to attend college full-time (Krogstad, 2016).

Organization of the Study

Chapter one has provided the background of the study, statement of the problem, purpose of the study, research questions, significance of the study, rationale for methodology, nature of the research design, theoretical framework, definition of terms, and assumptions, limitations and delimitations. Chapter two will provide a literature review, which will include issues impacting Latinx college student retention, social construction of target populations theory, and background on Hispanic-serving institutions. Chapter three will describe the methodology used for the study,

including selection of participants, data collection, and data analysis procedures. Chapter four will present the study's findings including demographic information, testing the research questions, and data analyses for the two research questions. Chapter five presents a summary of the research study, discussion of the findings, implications of the findings for theory and practice, recommendations for further research, and conclusions.

CHAPTER TWO: LITERATURE REVIEW

Overview

This chapter summarizes the literature related to demographic shifts in the United States population and, more specifically, the higher education demographic makeup. Next, is a review of the literature as it is related to the history of Hispanic-serving institutions (HSIs), federal funding related to the Hispanic-serving institution designation, and the concepts of institutions being “Hispanic-*serving*” rather than simply “Hispanic-*enrolling*”. The chapter then reviews the literature related to Latinx college access, including factors that can affect graduation rates. Next, it then provides an overview of the relevant literature related to higher education funding, specifically as it pertains to changes in the funding sources over time. Lastly, it concludes with a background of social construction theory and prior applications of the theory.

Demographic Shifts in the United States

Based on population projections from the U.S. Census Bureau, 66 percent of the total population increase between 2016 and 2060 will be due to an increase in the Latinx population. These projections, although estimates, should be cause for more attention to be paid to the needs of the Latinx population as they will play major roles in economic, educational, and sociopolitical shifts in the U.S. in the coming decades (Durán, 2020; Vela & Gutierrez, 2017). In the past couple decades, the majority of Hispanic population growth was due to immigration (Johnson & Lichter, 2016). In more recent years, however, the source of population growth is Hispanic births (Johnson & Lichter, 2008). Additionally, the White population has faced minimal population growth, with fewer women of reproductive age and an aging population facing mortality (Johnson & Lichter, 2016).

Immigration Policy in the United States

Most immigration policy in the United States is based upon the Immigration and Nationality Act (INA) that was originally signed into law in 1952 (Congressional Research Service, 2018). The INA has been updated several times since 1952 and in the current version, the Department of Homeland Security (DHS) is primarily responsible for implementing its policies through several executive branch agencies, including U.S. Citizenship and Immigration Services, Customs Border Protection, and Immigration and Customs Enforcement (Congressional Research Service, 2018). Outside of DHS, the Department of State handles visa issuance to foreign nationals and the Department of Justice operates immigration courts (Congressional Research Service, 2018).

The last comprehensive immigration policy, the Immigration Reform and Control Act (IRCA), was signed by President Ronald Reagan in 1986 after the bill spent four years going through Congress (Kaplowitz, 2018). IRCA changed the law at the time in two ways to deter immigration, including creating stricter enforcement on employers hiring undocumented individuals, as well as increasing border patrol efforts (Olivares, 2020). In addition, IRCA allowed a path for undocumented agricultural workers to gain permanent resident status (Olivares, 2020).

Many have argued that the Act of 1986 was a failed policy, ineffective in its efforts to control immigration from Latin America (Haverluk & Trautman, 2008). Ineffectiveness of the federal policies caused some states to attempt their own solutions at curtailing immigration (Lee, et al., 2001). In California, Proposition 187 was passed in 1994, depriving undocumented immigrants of social and welfare benefits (Lee, et al., 2001). The goals of Proposition 187 were

to reduce the costs associated with these public expenditures for undocumented immigrants, as well as eliminating the benefits in an effort to curtail immigration to the state (Su, 2013).

Additionally, Proposition 187 required California teachers, police, and welfare workers to report knowledge of undocumented immigrants to the U.S. Immigration and Naturalization Services (Lee, et al., 2001). While the law was passed in 1994, its provisions were never implemented, as its core provisions were enjoined by federal courts shortly after bill passage (Su, 2013). In more recent years, Arizona passed S.B. 1070 in 2010, mandating all state and local law enforcement officials to directly participate in immigration enforcement (Su, 2013). While the U.S. Supreme Court ultimately struck down portions of S.B. 1070, it upheld the immigration enforcement mandate (Su, 2013). While immigration has historically been a federal matter, states have become increasingly involved in testing their own immigration policies as a means of influencing policy-making at the national level (Su, 2013).

In 2012, after several failed congressional attempts at immigration reform, President Barack Obama signed an executive order implementing Deferral Action for Childhood Arrivals (DACA) (Peña, 2021). DACA provides both temporary relief from deportation as well as work authorization, but does not provide a permanent path to citizenship (Peña, 2021). While states do not have the authority to legalize undocumented immigrants, they can enact policies that affect their populations, including those related to the cost of education. As of 2017, 18 states have implemented laws that allow undocumented students to pay the in-state university tuition rate if they had attended primary or secondary school in the state (Peña, 2021).

Natural Increase in the Hispanic Population

Much of the research done on the increase in the Hispanic population has been focused on immigration rather than on the natural increase in the resident population (Johnson & Lichter,

2016). The natural increase among Hispanics is fueled by a few factors, including higher fertility rates and lower mortality rates when compared to the rest of the U.S. population (Durán, 2020; Johnson & Lichter, 2016). While there is some evidence that the higher-than-average fertility rates have declined in recent years, the fertility rates still have a large impact due to the sheer number of Hispanics in the U.S. (Durán, 2020). Additionally, the Hispanic population is younger than the White population, and the combination of these two statistics predict a continuing growth of the percentage of the Hispanic population as a proportion of the total U.S. population into 2060 (Durán, 2020). In the 1990s, a gap began between the mortality rates in rural and urban areas, with rural mortality rates growing since the mid-2000s (Monnat, 2020). While the rural-urban mortality gap has increased among all ethnic groups, it has been most pronounced in non-Hispanic Whites (Monnat, 2020).

From a policy perspective, there are certainly different implications when analyzing the Hispanic population increase from immigration versus that from a natural increase (Johnson & Lichter, 2016). Research by Johnson and Lichter (2008) disaggregated population changes into net migration and natural increase to examine the Hispanic population contribution over time. Demographically, Hispanic population growth is sustaining, due to natural increase, even if immigration policies were to seriously curtail migration (Johnson & Lichter, 2008).

Dispersal of Hispanic Population

While the Hispanic population has increased on the whole across the U.S., the percentage increases have affected regions and communities differently. Over the last 20 years, the Hispanic population has dispersed from border cities across the Southwest to a variety of areas across the country, including suburban areas, large metro areas, and rural areas (Johnson & Lichter, 2016).

In the early 2000s, over half of the Hispanic population increase was due to natural increase (Johnson & Lichter, 2016).

In studying Hispanic population growth patterns, Kandel and Cromartie (2004) identified three types of nonmetro counties: high-growth Hispanic counties, established Hispanic counties, and other nonmetro counties. There were large differences in Hispanic population growth rates, population sizes, and demographic characteristics identified between the three types of counties (Kandel & Cromartie, 2004). The classifications of the counties into these types helped to identify where the largest economic impacts may be seen. Several of the nonmetro counties, for example, are home to a number of industries, including meat processing, fish processing, and timber harvesting, that rely on low-skill workers (Kandel & Cromartie, 2004). When Kandel and Cromartie's study was done in 2004, the average nonmetro population increased for both Hispanic and non-Hispanic populations. However, later work by Lichter and Johnson in 2020 found that post-2010, for the first time in U.S. demographic history, natural increase was not enough to make up for migration out of rural counties. Between 2010 and 2017, there were 200 nonmetro counties that only grew in population because the Hispanic population growth exceeded the loss of non-Hispanic population losses (Lichter & Johnson, 2020). For those counties, the growth of the Hispanic population may help to revitalize some rural communities, infusing human capital and helping to support the local economy (Lichter & Johnson, 2020). Additionally, while Hispanic growth can be a benefit to the counties, Hispanic individuals living in the nonmetro communities also benefit economically through similar employment opportunities to metro areas as well as increased opportunities for homeownership (Kandel et al., 2011).

Demographics in Education

Generally, over the next 15 years, the number of high school graduates are expected to decline and become more diverse (Bransberger, 2017). At public high schools, the number of non-Hispanic White graduates is projected to decrease 17 percent, from 1.84 million in 2013 to 1.59 million by 2032 (Bransberger, 2017). Non-Hispanic White graduates of private high schools are projected to decline at an even greater rate (26 percent) (Bransberger, 2017). Because of the overall demographic trends across the U.S., these students are expected to be non-White and primarily Hispanic (Bransberger, 2017). Hispanic public school graduates are expected to increase by almost 50 percent between 2103 and 2025, up to over 900,000 graduates (Bransberger, 2017). Hispanic graduates after 2025, however, are expected to decline due to decline in birth rates (Bransberger, 2017).

While undergraduate enrollment of non-Hispanic White students decreased by 1.7 million between 2009 and 2017, Latino enrollment increased by 1.1 million (Saenz, 2020). Across the nation, 49 states experienced declines in their non-Hispanic White population over the same time period, while 48 states experienced an increase in undergraduate Hispanic students (Saenz, 2020).

Implications of Demographics

If demographic trends continue, the Hispanic population is expected to exceed 100 million by 2050 (Haverluk & Trautman, 2008). Some researchers predict that without major changes to U.S. immigration policies, that those immigrants who are working here illegally will continue to do so, most likely even with increased border security (Haverluk & Trautman, 2008). From an economic standpoint, those sectors that rely on low-wage labor will benefit, as will U.S. residents who will continue to enjoy less expensive meat, vegetables, and hotel rooms (Haverluk

& Trautman, 2008). From an education standpoint, however, researchers are finding there is a critical need for the enactment of policies that address undocumented students and their progression from secondary to higher education (Saenz, 2020). As higher education institutions depend increasingly on Latino student enrollment, university leadership are expected to support and lobby for a path toward citizenship for undocumented students (Saenz, 2020).

Hispanic-Serving Institutions

Hispanic-serving institutions (HSIs) are a relatively new concept in the history of American higher education. As first defined in 1992 by the Higher Education Act reauthorization, HSIs have undergraduate populations made up of at least 25 percent Hispanic students. Institutions that qualify must apply to the U.S. Department of Education for recognition as an HSI and approved institutions are eligible for grant funding and other related assistance from the federal government to assist with programs supporting Hispanic students.

History of HSIs

At least three significant historical events took place prior to the designation of the HSI. First, the Civil Rights Movement created opportunities for students of varied racial and ethnic backgrounds to participate in higher education (Laden, 2001). In the late 1960s, Mexican-American college students organized protests to shed light on unequal educational conditions for area high school students in East Los Angeles (Rhoads, 2016). By the 1990s, activists shifted their attention to focus on opportunities in higher education and the climate of college campuses for minorities (Rhoads, 2016). Second, there was increased Hispanic immigration to the United States over the past several decades (Laden, 2001). Of the 7.7 million Latin American immigrants between 1890 and 1990, nearly 60 percent came to the United States in the 1970s and 1980s (Carlson, 1994). Third, there were demographic shifts in the population within the

United States that have led to increases in Hispanic population in more rural areas (Laden, 2001). Between 2000 and 2010, the rural Hispanic population grew by nearly 45 percent (Lichter, 2012).

The Higher Education Amendments of 1992 defined what an HSI is and financially incentivized institutions to reach a 25 percent baseline of Hispanic undergraduate students. Many of the institutions that educated growing numbers of Hispanic students were severely underfunded and this legislation provided dedicated funding (Malcom-Piqueux & Lee, 2011). In addition to enrolling at least 25 percent Hispanic undergraduate full-time equivalent students, institutions are also required to be an eligible institution as defined by the federal government and provide assurances related to the percentage of Hispanic students who are low income or first generation. Institutions that meet the qualifications of an HSI are eligible to apply for Title V funding.

Minority-Serving Institutions

Recent literature on HSIs focus on the ‘serving’ aspect of the title of the designation. The federal government has not defined what the ‘serving’ in the HSI definition means (Garcia, 2019). Unlike historically Black colleges and universities (HBCUs) and tribal colleges and universities (TCUs), HSIs are only defined by a Latinx percentage threshold, not an underlying university mission to serve them (Nuñez, Hurtado, & Calderón Galdeano, 2015). The amended Higher Education Act of 1965 defined HBCUs as an accredited educational institution whose primary mission was the education of Black Americans (Brown, 2013). There are currently 103 HBCUs across the nation, but they vary widely in size and characteristics (Brown, 2013). They do, however, share the common responsibility of being the primary providers of higher education for Black Americans, and they do this by way of several goals (Brown, 2013). HBCUs aim to:

maintain the Black historical and cultural traditions, provide leadership for Black Americans, provide Black role models, and produce Black graduates (Brown, 2013). TCUs were established to provide Native people with access to higher education (Crazy Bull et al., 2016). Goals of TCUs include providing Native people with the skills necessary to pursue a variety of career opportunities while also preserving the tribal cultures, languages, and traditions (Crazy Bull et al., 2016).

HSIs' Ability to Serve Latinx Students

Much of the literature in recent years shows concern for institutions not doing enough to serve its Latinx students. In contrast to HBCUs and TCUs, many HSIs do not have a mission statement that specifically includes education of the Hispanic population (Nuñez et al., 2015). Researchers have recommended that HSIs adopt a mission statement that includes graduation of Hispanic students (Vela & Guterrez, 2017). Incorporating goals related to Hispanic students into an institution's mission statement aims to provide guidance for faculty, staff, and administration in reaching desired institutional outcomes (Vela & Guterrez, 2017).

The ability for HSIs to serve their Hispanic populations varies widely because of the extreme institutional diversity among HSIs (Nuñez et al., 2016). For example, missions of two-year institutions versus four-year institutions can vary significantly. Historically, two-year institutions have offered more technical training and have also prepared its students to transfer to four-year institutions (Garcia, 2020). In 2019, 46 percent of all HSIs were two-year institutions and 54 percent were four-year institutions (Excelencia in Education, 2020a). Likewise, in 2019, 69 percent of all HSIs were public institutions and 31 percent were private institutions (Excelencia in Education, 2020a). Public institutions' ability to serve their Hispanic populations can differ greatly from that of private institutions based upon funding mechanisms as well as

government initiatives mandated to public institutions by both the state and federal levels (Garcia, 2020). Institutional size as well as geographic location can also affect institutions' ability its student population (Garcia, 2020). Because of these differences, institutions may approach the ways that they serve their Hispanic populations differently (Garcia, 2020).

Given these differences across HSIs and the difficulty in comparing across institutions, researchers have proposed a description and typology of HSIs. Garcia (2017) rejected a binary classification of institutions as either "Hispanic-serving" or "Hispanic-enrolling" and developed a typology for HSIs based on the level to which an institution's organizational culture reflects Latinxs and the level of the institution's organizational outcomes for Latinxs. She defined those institutions with a low Latinx organizational culture and low organizational outcomes for Latinx students as "Latinx-enrolling" (Garcia, 2017). These institutions essentially meet the criteria for HSI status based on enrollment but does produce beneficial outcomes for Latinx students, nor does it have a supportive Latinx organizational culture on campus (Garcia, 2017). Next, she defined those institutions with a low organizational culture but high organizational outcomes for Latinxs as "Latinx-producing". She then defined those institutions with a highly supportive organizational culture but low organizational outcomes for Latinxs as "Latinx-enhancing. Lastly, she defined those institutions with both high organizational outcomes for Latinx students and a highly-supporting organizational culture as "Latinx-serving".

Whereas Garcia (2017) recommended a typology that included four categories, Nuñez et al. (2016) suggested a typology with six categories, or "clusters," as they define them. Nuñez et al. (2016) provided a descriptive profile of each cluster, which is based on location, size, control (public or private), and type (two-year or four-year). The first cluster was identified as Urban Enclave Community Colleges and was the most prevalent type of HSI, representing 37 percent

of all HSIs (Nuñez et al., 2016). These public, two-year institutions had high student populations and were located in cities or suburbs. Examples of these included Broward College and East Los Angeles College. The second cluster was identified as Rural Dispersed Community Colleges and represented 13 percent of all HSIs (Nuñez et al., 2016). Over 60 percent of these public, two-year institutions were located in the South and had much lower student enrollment than the first cluster. Examples of these included Dodge City Community College and New Mexico Junior College. The third cluster was identified as Big Systems Four-Years, represented 21 percent of HSIs, and had the largest enrollments (Nuñez et al., 2016). Examples included Florida International University and University of California-Riverside. The fourth cluster was identified as Small Communities Four-Years and represented 9 percent of HSIs (Nuñez et al., 2016). This cluster was made up of smaller institutions and were located primarily in the West and the South. Examples included College of Mount Saint Vincent and Our Lady of the Lake University (Nuñez et al., 2016). The fifth cluster was identified as Puerto Rican Institutions, represented 19 percent of all HSIs, and the majority offered bachelor's degrees or higher. Examples included American University of Puerto Rico and University of Puerto Rico-Arecibo. Lastly, the sixth cluster was identified as Health Sciences Schools and represented the only two HSIs focused on health sciences, University of Texas Health Sciences Center and the University of Puerto Rico Medical School (Nuñez et al., 2016).

While there are differences in the typology recommended, researchers agree that some form of typology for HSIs would be helpful for multiple stakeholders. First, researchers could utilize a typology in studying how a given HSI fares when compared to HSIs with similar characteristics (Nuñez et al., 2016). Next, a typology could assist administrators and leaders at HSIs in selecting peer institutions for comparison and to assess policies and procedures at other

like institutions with their own (Nuñez et al., 2016). Third, policymakers would be able to better compare institutional performance of HSIs, which may have funding implications (Nuñez et al., 2016). Lastly, because of the demographic impact of Latinx students on increasing overall U.S. postsecondary attainment, a typology could assist nonprofit organizations and government agencies in identifying specific institutions to focus aid (Nuñez et al., 2016).

Latinx College Access

Latinxs have made significant gains in the past decade in educational attainment (Krogstad, 2016). Latinx high school dropout rates have decreased drastically, from 34 percent in 1996 to 9.7 percent in 2018 (U.S. Census Bureau, 2019). While a significant drop, Latinx student still have higher dropout rates than blacks (4.9 percent), Whites (4.5 percent), and Asians (2.8 percent) (U.S. Census Bureau, 2019). While college-enrolling rates among Latinxs have increased from 22 percent in 2000 to 39 percent in 2016, they are not keeping pace with non-Latinxs (NCES, 2018a). Further, Latinx college enrollment also translates into a degree less often than among non-Latinxs (Ortiz, Valerio, & Lopez, 2012). Research has also shown that Latinx students are more likely to attend a community college or two-year institution than their non-Latinx counterparts (Bauman, 2017). A review of the literature shows there are several factors that can influence Latinx students' choice to attend college and successfully complete college.

Student-Level Characteristics

Student-level characteristics include demographics, academic preparation, and familial relations, that can affect one's decision to enroll (Perna & Thomas, 2008). Demographically, female Latinx students are more likely than their male counterparts to enroll in a four-year institution (Nuñez & Kim, 2012). Regardless of background, there is a significant gender gap in

the number of women who both enroll in and graduate from college than men (Dougherty et al., 2016; Ewert, 2012). Attendance patterns, social integration, and academic performance all contribute to higher graduation rates for women (Ewert, 2012).

Academically, Latinx students taking advanced mathematics courses also makes them more likely to enroll in a four-year institution (Nuñez & Kim, 2012). Once enrolled, however, Latinx students are overrepresented in developmental (remedial courses) and often end up having to take these courses repeatedly (Contreras & Contreras, 2015; Elliott & Parks, 2018). This can lead to a loss of interest in college altogether, as well as to a lack of exposure in courses related to their major (Contreras & Contreras, 2015). A study by Tyson et al. (2007) of Florida's public universities found both Black and Hispanic students are most likely to drop off science, technology, engineering, and math (STEM) pathways because they are less likely to take advanced-level courses.

Latinx parents with higher educational expectations are also associated with a higher likelihood of Latinx students attending a four-year institution (Nuñez & Kim, 2012). Ramirez et al. (2019) found the influence of Latina mothers on their Latino sons to be a positive influence on their educational journeys into and throughout college. Research by Orellana (2001) has found, however, that the socialization of many Latinx children focuses on survival, with many high school students working to contribute to the household income. Many Latinx families emphasize the importance of developing a sense of responsibility in their children and sometimes the importance they place on manual labor can be seen as a devaluation of school (Hill & Torres, 2010). Traditionally, Latin men are the primary breadwinners and the prevailing cultural expectation for women is that they be responsible for domestic chores (Elliott & Parks, 2018). It is not uncommon for multiple generations to live together and the emphasis placed on the needs

of the family can affect a student's persistence in college (Elliott & Parks, 2018). Unlike Latino males, longitudinal studies by Zarate and Gallimore (2005) showed that Latinas' parents expectations and assessments of their daughters' interest in school did not correlate with those girls who ended up attending college and those who did not.

High School Characteristics

High school characteristics include demographics of the student body, curriculum, and assumptions related to college enrollment that also ultimately affect the choice to enroll (Oakes, Mendoza, & Silver, 2006). Some demographics, like the percentage of free and reduced lunch recipients, make it less likely that a Latinx student will enroll in a four-year institution (Nuñez & Kim, 2012). Other demographics, however, such as the percentage of Hispanic student enrollment as a total of the high school population can make it more likely for students to enroll in college (Talbot & Kuehn, 2002). In a study by Talbot and Kuehn (2002), however, researchers found conflicting data on schools with high Hispanic populations, with the rural schools outperforming the urban schools in college preparation.

Messaging from high schools has also been found to be an important predictor of college enrollment. McDonough (1997) found that differences exist in their efforts toward aiding students in their pathways to college. Her qualitative study found little college counseling occurring at a high school serving lower income students, while other schools serving middle- to upper-class students promoted a theme of college-going behavior (McDonough, 1997). Later research on Latinx students from low- and mid-socioeconomic status (SES) schools reported messaging focused on high school as the terminal educational goal and focused on getting students graduated rather than preparing them for postsecondary options (Martinez & Deil-Amen, 2015).

State-Level Characteristics

State-level characteristics include state culture, economic and political conditions, and demographics (McLendon, Deaton, & Hearn, 2007). Some state-level characteristics, including those states with higher proportion of teachers with certifications and those states with higher Latinx populations, contribute to a higher likelihood of Latinx students enrolling in a four-year institution (Nuñez & Kim, 2012). Some states have passed legislation in an effort to improve college-going rates (Oliva, 2008). Texas, for example, passed HB 400 in 2001, which mandated that the high schools sending the lowest percentage of students to college work with local community colleges or universities to improve their college-going rates (Oliva, 2008). This type of policy not only helps Latinx and other represented students to develop a college mindset from an early age, but also forces postsecondary educators to envision a coordinated educational structure from K-16 (Oliva, 2008).

Undocumented Students

An estimated 15 percent of Latinx students are not United States citizens (Santiago et al., 2005). Many of these students are considered “undocumented,” which refers to individuals born outside of the U.S. who have either entered the country without inspection or have remained in the country beyond the expiration date of a visa or other status (Pullias Center for Higher Education, 2017). While undocumented students make up a relatively small percentage of all Latinx students, the research in this area has been more pronounced in recent years with the current immigration debate. Additionally, many documented Latinx students may be first-generation United States citizens, and so while they may not be directly impacted by immigration policies, their parents may have been (Irizarry, 2012). Due to the stigma of not

having legal status, literature has shown some undocumented students have been less likely to reach out to teachers and guidance counselors in high school with assist them with applying to college (Lauby, 2017). While some states offer in-state tuition rates, not all undocumented students may take advantage of this because it involves providing their immigration status to the school, which they may be afraid to do (Bjorklund Jr, 2018). Because undocumented students are not eligible for financial aid, much of the educational expenses (if not all of them) must be burdened by the student and/or his or her family, which can cause additional anxiety and stress (Diaz-Strong et al., 2011).

Latinx Student Outcomes at HSIs

Prior research on Latinx student outcomes at HSIs ranges widely from a focus on Title V funding application ties to student outcomes to the constitution of Latinx students at the institution (minority-minority HSIs or minority-majority HSIs). Contreras and Contreras (2015) found that Latinx students had lower graduation rates than their White peers across most California State University campuses. Liu and Liu (2012) found that there was not a significant difference in graduation rates between minority-minority HSIs (where Latinxs are the not the largest minority on campus) and minority-majority HSIs (where Latinxs are the largest minority on campus).

While other researchers examined graduation rates at HSIs, regardless of Title V funding, Vargas and Villa-Palomino (2015) reviewed Title V funding applications to find evidence that proposed funding uses could improve Latinx student outcomes. Their research found a staggering 85 percent of Title V funding abstracts were ‘colorblind’, meaning that Latinx students were ancillary to the funding initiatives’ benefits. (Vargas & Villa-Palomino, 2015). One university’s funding proposal, for example, sought to use the funding to improve facilities

and technology for its STEM programs, even though less than four percent of its Latinx students were STEM majors (Vargas & Villa-Palomino, 2015).

The most relevant piece of research to this dissertation was published in 2020 by Perez. Her work focused on four-year universities designated as HSIs as of fall 2012 with at least 1,000 students (Perez, 2020). She analyzed the extent to which Title V grants and expenditures per full-time enrolled (FTE) student were associated with Latinx graduation rates and bachelor's degrees awarded (Perez, 2020). Perez's (2020) research did not find expenditures per FTE were significant in predicting Latinx graduation rates at HSIs. Perez (2020) did find, however, that the Title V grants were a significant predictor of bachelor's degrees awarded to Latinxs but did not find that they were a significant predictor of graduation rates of Latinxs. One of the cited limitations of Perez's (2020) research was that a small sample size was used. Additionally, the data used were dated (using Title V grant recipients from 1999 to 2012) and with the sharp increase in HSIs since then, there is further research to be done.

Recommendations to Increase Student Access and Success

Several researchers have put forth ideas to increase access and help improve measures of student success. First, some researchers have recommended increasing access through partnerships between high schools and institutions of higher education. For example, Martinez and Deil-Amen (2015) recommended increasing academic rigor and expectations across the board and increasing outreach programs by universities to Latinx students at high SES schools. Second, others have recommended rethinking the traditional measures of student success. For example, Contreras and Contreras (2015) recommended shortening the use of six-year cohort rates by community colleges, arguing that six years is far too long to be considered a "success." Third, some researchers have recommended better data collection by HSIs. Franco and

Hernandez (2018) recommended that HSIs across the board do a better job of capturing student outcomes both through quantitative and qualitative data. In order to do this, data must be disaggregated into subgroups based upon students' diverse background characteristics and this data should be presented on institutional websites to convey transparency and accessibility (Franco & Hernandez, 2018).

Public Higher Education Funding

Historically, in the U.S., there have been three parties that have shouldered the costs of public higher education: students, states, and institutions (Doyle & Delaney, 2009). In the early 20th century, there were vast differences among the states in the funding they provided to their higher education institutions. While a century has passed, state funding levels continue to differ greatly, with states with more recent years of statehood spending more government funds on public higher education institutions and keeping tuition and fees levels lower than other states (Cheslock & Hughes, 2011).

Federal support for higher education is primarily intended for funding financial aid programs for students (GAO, 2014). Over the period of 2003 to 2012, state funding decreased 17 percent while tuition rates increased 55 percent (GAO, 2014). Part of the state funding decline was due to economic conditions and other state budget priorities (GAO, 2014). In addition to shortfalls caused by the Great Recession, increases in the state's share of Medicaid and other social service programs have cut into funding previously dedicated to higher education (Kane, Orszag, & Apostolov, 2005). Policy makers in many states have also questioned what they see as a lack of accountability for colleges and universities, causing them to pull back funding (McKeown-Moak, 2013).

Tuition and Fee Increases

Tuition and fees were relatively low in the early 20th century, so variation across states had little impact (Cheslock & Hughes, 2011). Tuition started to increase, however, in the mid-1970s and has exponentially increased since the mid-1980s (Cheslock & Hughes, 2011). Between 1980 and 2004 the Consumer Price Index (CPI) for College Tuition and Fees grew significantly faster than the CPI excluding food and energy components (core CPI) (Bundick & Pollard, 2019). On average, college tuition inflation, up until 2005, averaged 7 percent, while core CPI averaged only 4 percent (Bundick & Pollard, 2019).

There are several reasons that have been given for the increase in tuition and fees. First, decreases in state funding have led to institutions increasing tuition, where possible, to make up for shortfalls (Hemelt & Marcotte, 2011). At University of Massachusetts-Amherst, much of the financial strain on the institution is due to growing student enrollment and increases in capital facilities (Sullivan et al., 2016). Because of increasing debt service obligations and operating expenses, the university has become increasingly reliant on tuition and fees (Sullivan et al., 2016). Over a ten-year period from 2005 to 2015, in-state tuition and fees increased from roughly \$9,200 to over \$14,000, and out-of-state tuition and fees increased from roughly \$18,300 to over \$30,500 (Sullivan et al., 2016).

Because universities can make more money on out-of-state students, this has become a strategy for some institutions to increase revenue (González Canché, 2017; Jaquette & Curs, 2015). Research by Jaquette and Curs (2015) found a significant negative relationship between state appropriations and non-resident enrollment. Further research by González Canché (2017) found that attracting students from wealthy states resulted in a greater impact on tuition and fees than treating non-resident students as a homogenous group.

A second reason for institutions increasing tuition and fees is due to market demand by students. Hurwitz and Kumar (2015) found in the decade from 2002 to 2012, rising tuition prices had no impact on application volume. In their research, the colleges with the lowest quartile increase in tuition and fees experienced a 59 percent increase in application volume, while the colleges in the top quartile of sticker price changes experienced a 95 percent increase in application volume (Hurwitz & Kumar, 2015). This research, however, does have its limitations in that sticker price of tuition and fees does not ultimately match the amount that students end up paying after grants and scholarships (Hurwitz & Kumar, 2015). The increase in the net amount that students end up paying actually rose much more slowly during the same time frame (Hurwitz & Kumar, 2015). Additionally, while an argument can be made that application volume increased regardless of the tuition increase, an argument could also be made that institutions increased tuition and fees as a result of increased market demand (Hurwitz & Kumar, 2015).

Lastly, a third reason that may be causing institutions to increase tuition and fees is related to increased availability of federal loans, as well as state aid programs. Between 2003 and 2012, college tuition and fees rose consistently, while the limits for federal loans also increased. The U.S. General Accountability Office (GAO) (2014) developed a statistical model to analyze whether loan limit increases had an impact on college tuition, fees, room, and board in the years subsequent to the increases. The GAO (2014), however, found that it was difficult to establish a direct link between the two, due to a number of other factors that occurred at the time the loan limit increases commenced.

Performance-Based Funding

Performance-based funding is a method of funding higher education used by some states around the United States, as well as in at least 20 European countries (Dougherty et al., 2016).

Most funding provided by state governments to institutions of higher education is done by way of state budget appropriations (Toutkoushian & Paulsen, 2016). As tuition rates have increased at a rate higher than that of inflation, legislators and their constituents have demanded that state funding for higher education be tied directly to institutional performance metrics (Alshehri, 2016; Dougherty et al., 2016). In order to accomplish this, many states have implemented varying systems of performance-based funding.

Performance-based funding began in Tennessee in 1979 as a way to provide additional funding to those institutions of higher education meeting established performance criteria (Dougherty et al., 2016; Dougherty et al., 2011). Performance criteria vary widely by state but can include four- or six-year graduation rates, retention rates, and can include both two-year or four-year institutions in the state (Dougherty et al., 2016). Additionally, some states place greater weight on some outcomes for certain types of students, including underrepresented minorities or those with a lower socioeconomic status (Dougherty et al., 2016). This method of tying state funding directly to performance initiatives in higher education as an additional ‘bonus’ to base state educational appropriations is now referred to as Performance Funding 1.0 (Dougherty et al., 2016). Many states since Tennessee have adopted performance funding and some have even eliminated it and then restored the practice more recently (Dougherty et al., 2016). Performance Funding 2.0, also referred to as “outcomes-based funding” differs from Performance Funding 1.0 in that funding is part of the base appropriations provided to the institutions rather than a bonus on top of the base (Dougherty et al., 2016). Those states with the most intensive performance funding programs provide at least 25 percent of the state’s funding of higher education and all institutions in the state are included (Snyder, 2015).

Federal Funding

In the mid-1990s, federal lawmakers and Latinx leaders recognized that institutions serving a large population of Latinx students received, on average, a lower amount of state funding than peer institutions (Nellum & Valle, 2015). While the Higher Education Amendments of 1992 defined what an HSI is and financially incentivized institutions to reach a 25 percent baseline of Hispanic undergraduate students, it was not until 1995 that HSIs were funded under Title III (Nellum & Valle, 2015). In 1998, another reauthorization of the HEA expanded funding to include Title V (Nellum & Valle, 2015).

There are three types of Title V funding that are managed by the Hispanic-Serving Institutions Division of the Office of Postsecondary Education of the U.S. Department of Education. First, Title V, Part A funding is dedicated to the Developing Hispanic Serving Institutions (DHSI) program. This program provides funding to HSIs to expand opportunities for Latinx students. Next, Title V, Part B funding provides grants for the Promoting Postbaccalaureate Opportunities for Hispanic Americans (PPOHA) program. These funds are only available to institutions with postbaccalaureate programs. Lastly, Title V, Part C funding is designated for the Hispanic-Serving Institutions-Science, Technology, Engineering, or Mathematics (HSI-STEM) program. These funds are intended to increase the number of Latinx students in the STEM fields.

Outside of funding related to an institution's status as an HSI, there is little federal funding that institutions receive that can be used to fund university operations. Typically, there are two main reasons for institutions to receive federal funding: federal student financial aid and faculty research (Cook, 1998). Federal funding sent to institutions the sole purpose of student financial aid, through programs like the Federal Pell Grant, Federal Student Opportunity Grant,

and the Direct Loan program, is done so as a pass-through from the federal government to students in higher education (Cook, 1998). Institutions nationwide also receive billions of dollars from federal agencies to support academic research (Blume-Kuhout et al., 2014). These federal sources can subsidize investments in human capital and can also, in the long run, help universities to potentially compete for subsequent research support (Blume-Kuhout et al., 2014).

Social Construction of Target Populations

Description of Theory

Schneider and Ingram (1993) argue that social constructions of target populations can shape policy agendas (Pierce et al., 2014). The social construction of a population relates to both the identification of shared characteristics that distinguish a population from others, as well as the assignment of specific values to the population's characteristics (Schneider & Ingram, 1993). Populations that are seen as beneficial tend to have higher control over policy agendas and therefore, are more likely to be beneficiaries of positive policy changes (Schneider & Ingram, 1993). The theory differs from other policy process theories in that it seeks to explain why some groups are more advantaged than others (Pierce et al., 2014).

The theory itself is founded upon eight assumptions, which are divided into three categories: model of the individual, power, and the political environment. Assumptions related to the first category, model of the individual, include: (1) people cannot process all of the information relevant to make a decision, (2) mental heuristics filter information in a biased way, (3) people use social constructions in a subjective manner, and (4) people perceive generalizable patterns of social constructions (Pierce et al., 2014). A single assumption relates to the second category, power, which states that power is not equally distributable within a political environment (Pierce et al., 2014). Lastly, assumptions related to the third category, political

environment, include: (1) policy creates future politics which then create new policies and politics, (2) policies send messages to citizens, and (3) policies are created in a politically uncertain environment (Pierce et al., 2014).

As shown in Figure 1 (below), Schneider and Ingram (2019) identified four types of target populations, with those groups considered to be “more deserving” on the left and those less deserving on the right (Schneider & Ingram, 2019). Additionally, the framework identifies social constructions of these group, with the groups on the top of the page having access to more power resources and the groups on the bottom having less access to these resources (Schneider & Ingram, 2019). Based on these dimensions, Schneider and Ingram (2019) identified four types: advantaged, contenders, dependents, and deviants. First, the target population that has been identified as “advantaged” is typically seen to be hard-working and includes businesses and the middle class (Schneider & Ingram, 2019). Next, “contenders” are seen to be less deserving but still powerful and include “the rich” and “big banks” and are socially constructed as “greedy” (Schneider & Ingram, 2019). Third, “dependents” are seen to be more deserving but less powerful and include women, children and minorities. Dependents are considered to be innocent and helpless (Schneider & Ingram, 2019). Last, “deviants” include criminals and terrorists and are socially constructed as “dangerous” and “immoral” (Schneider & Ingram, 2019).

Application of Theory

Reviews of the theory’s application by Pierce et al. (2014) found that it was published in over 80 different journals, including core journals in political science, public policy, public administration, and well-known interdisciplinary journals. Additionally, the articles were written by a diverse group of authors, totaling 99 different first authors writing 123 publications (Pierce et al., 2014).

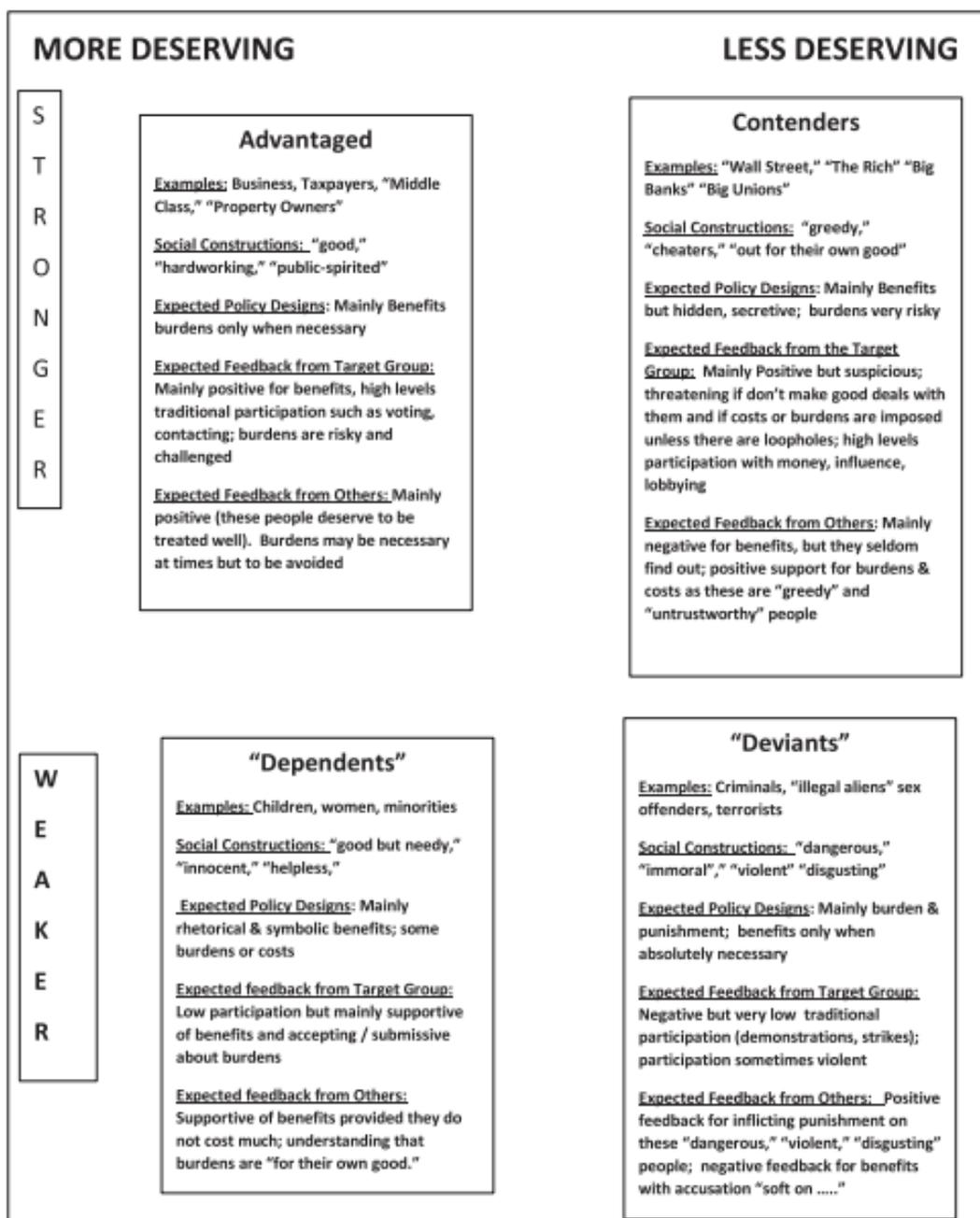


Figure 1: *Social Construction of Target Populations.*

Note. From "Social constructions, anticipatory feedback strategies, and deceptive public policy" by A.L. Schneider and H.M. Ingram, 2019, *Policy Studies Journal*, 47(2), 206-236. Copyright 2018 by Policy Studies Organization.

Sixty-one percent of the applications of the theory focused on federal policies (Pierce et al., 2014). One example of this is Brucker's (2007) research on substance abuse treatment participation and employment outcomes for public disability beneficiaries. Brucker uses the social construction of target populations theory to help frame the changing social constructions around public assistance for persons with disabilities (Brucker, 2007).

Several other researchers focus on the application of the theory to policies across governmental levels. DiAlto (2005) detailed the changing social construction of Japanese-Americans in her research, which includes an analysis of public policy-making as well as opportunities for minorities to challenge their social constructions in the court system. Drew (2013) utilized social construction theory to frame the social constructions of homeownership, low-income households, and the private mortgage industry. Drew (2013) found that policies enacted to increase low-income homeownership did nothing to assist households with maintaining homeownership. Ross (2006) used social construction theory to analyze minority adolescents' social construction in a community setting and in regards to conflict between economic development and diversity.

Application of Theory in Political Science

Much of the application of the theory has taken place in the political science and public policy fields. Within political science, the focus of most researchers has been on political activism and the influence of various groups on the policymaking process. Bromley-Trujillo et al. (2014) researched the relationships between climate scientists and environmental interest groups. Traditionally, scientists have been included as part of the "advantaged" social construction, yet climate scientists are in a unique subclass that puts them at a disadvantage where they may be forced to defend their objectivity, especially if involved in activism

(Bromley-Trujillo et al., 2014). The researchers, however, found those scientists with greater concern for climate change were actually less likely to join environmental groups or donate money to the groups, perhaps in an effort to preserve objectivity (Bromley-Trujillo et al., 2014). Outside of studies on activism, researchers have also focused their work on the various types of groups that are political players. Kreitzer and Smith (2018) found some changes from the classification of some target groups from Schneider and Ingram's (1993) original work. For example, Kreitzer and Smith (2018) found that taxpayers and small businesses were found to be socially constructed as "dependents," rather than as "advantaged." Likewise, Kreitzer and Smith's (2018) work found that some groups, including the uninsured, are solidly in one category based on power whereas Schneider and Ingram (1993) had placed them in the middle of the power spectrum.

Application of Theory in Public Policy

There is an abundance of application of the social construction of target populations theory within the public policy field. These applications focus on how the social constructions of these groups have an impact on the policymaking process. Across the field, in general, policymakers will try to create congruent policies where the preferences of the general public are met while also maximizing support from targets of policy interventions (Boushey, 2016). Lawmakers typically will only try to impose burdens on those target populations seen as "deviants" (Boushey, 2016).

Much of the application of the theory in public policy has been focused on criminal justice policies. Barney (2020) researched Louisiana's 1987 enactment of a policy that criminalized intentional human immunodeficiency virus (HIV) exposure and a 1993 amendment of the law that increased the penalties for violation of the law against police officers. While there

were no identifiable advantaged persons at the time of the original passage of the bill, the 1993 amendment made police officers the identifiable “advantaged” party. Barney (2020) identified the prison system as the “contenders,” those community members not diagnosed with HIV as “dependents,” and those persons living with HIV as “deviants” when applying the social construction of target populations theory. Stabile et al. (2019) examined sexual assault policy through the lens of the theory, finding that policies perpetuate social constructions of those groups that are already seen as more disadvantaged. In the case of sexual assault, where women are more likely to be reporting a rape, policies have been found to create further barriers for women, while those that are seen as “advantaged” (in this case, men), enjoy relative credibility (Stabile et al., 2019). Valcore and Dodge (2019) also applied the theory to hate crime legislation and its impact on the social construction of gay and lesbian individuals. Historically, the researchers found that sexual minorities were socially constructed as “deviants,” but that this target group is one in transition. The researchers hypothesized that including sexual orientation in hate crime legislation would not only cause the social construction for gays and lesbians to be more positive (as portrayed in local newspapers) but would also increase the political power of these individuals (Valcore & Dodge, 2019). The researchers, however, found an overall negative impact by the addition of sexual orientation to state hate crime laws in the intervention states (Valcore & Dodge, 2019).

Application of Theory in Public Administration

Researchers in the public administration field have also utilized the social construction of target populations theory. Pasha (2018) studied municipal transportation policy in Massachusetts and hypothesized that those communities with higher non-White populations and low-income populations received less state transportation funding than others. Pasha (2018) based this

hypothesis on the social constructions of non-White and low-income individuals that place them into the “deviant” and “dependent” categories. These target populations, therefore, would be expected to receive less benefits than higher income suburban Whites, who have been placed into the “advantaged” category (Pasha, 2018). The research supported Pasha’s (2018) hypothesis regarding areas with higher percentages of non-White individuals receiving state transportation funding but did not support the hypothesis regarding those areas with higher low-income populations.

Beyond transportation policy, Holder and Flanigan (2020) applied social construction of target populations theory to the Deferred Action for Childhood Arrivals (DACA) application process. For a target population that had previously been socially constructed as deviant and criminal, the DACA process provided a reconstruction of the population into a favorable and deserving part of society (Holder & Flanigan, 2020). Respondents in Holder and Flanigan’s (2020) study explained that many of them were very skeptical of the DACA process to begin with and worried that the consequences to applying for DACA could outweigh the benefits. Many respondents took steps to mitigate the risks by hiring legal counsel and waiting until more detailed information was published on government websites (Holder & Flanigan, 2020). Ultimately, by becoming approved by DACA, respondents saw themselves as following the rules and therefore, becoming closer to being socially constructed as “deserving” (Holder & Flanigan, 2020).

Application of Theory in Higher Education

There are many fewer articles published in the field of education that utilized the social construction of target populations theory. Of those, there are even fewer focused on higher education and the vast majority of the higher education research in this area is focused on

funding. Copeland and Mamiseishvili (2017), for example, used the framework when analyzing higher education lottery scholarships in ten states. The researchers analyzed both primary and secondary data, including interviews, legislative bills, committee meeting minutes, policy reports, and newspaper articles, and coded them into four themes (advantaged groups, contenders, dependents, and deviants) (Copeland & Mamiseishvili, 2017). Analysis of the data revealed four types of groups that were socially constructed and discussed during the policy design process: student beneficiaries, typical lottery players, retail and vendor beneficiaries, and gambling addicts (Copeland & Mamiseishvili, 2017). The four groups identified by Copeland and Mamiseishvili (2017) fit into the typology designed by Schneider and Ingram (1993) where the students became the advantaged group, the typical lottery players became dependents, the retailers and vendors became the contenders, and the gambling addicts were the deviants. In line with the theory, the messages communicated to the groups were reinforced with either positive or negative social constructions (Copeland & Mamiseishvili, 2017).

Bell (2020) examined tuition-free college policies across the nation and used Schneider and Ingram's framework to understand the political dynamics that affect public opinion on policies with multiple designs. She hypothesized that tuition-free college policies that include a merit requirement will garner higher levels of public support because they create a positively constructed population of students that are more likely to be perceived as "deserving" (Bell, 2020). She also hypothesized that universal tuition-free college policies (those without family income caps) would receive higher levels of public support because more people can benefit from the policies and can knit communities together (Bell, 2020). Lastly, she hypothesized that conservative respondents would be more likely to be impacted by differences in the tuition-free college policies because prior studies found conservatives to distinguish between populations'

perceived “deservingness” more so than liberals (Bell, 2020). Results from Bell’s (2020) study found support for her first two hypotheses related to higher levels of public support for policies including a merit requirement, as well as those policies without family income caps. Her study, however, did not support her hypothesis related to the influence of political ideology on variations in policy design (Bell, 2020).

Also related to higher education funding, Li and Zumeta (2019) analyzed higher education appropriations using the social construction of target populations. Like other studies, the researchers found that college students are perceived as a “deserving” target population. Because of society’s favorable construction of college students, the researchers hypothesized that during times of downturn in higher education funding to institutions, policymakers would increase student aid to make up for increases in tuition and fees (Li & Zumeta, 2019). Li and Zumeta (2019) found that states did, on average, increase student aid’s share of higher education appropriations during times of downturn.

Application of Theory on Latinxs

There is limited research on application of social construction of target populations theory specifically to Latinxs. Immigration is a current topic of interest and some research has found that social constructs of Latinxs depends on the country of origin. For example, research by Magaña and Short (2002) found that Mexican immigrants were portrayed negatively by some political candidates, in part because there was little fall-out from the characterizations. The same research found that Cuban immigrants were not portrayed negatively by politicians, perhaps due to Cubans having higher socioeconomic status (Magana & Short, 2002).

CHAPTER THREE: METHODOLOGY

Overview

The primary goal of this study was to test the research questions that relate to Hispanic-serving institutions and graduation and enrollment rates as stated in Chapter 1. The methodology used to test the research questions is presented in this chapter. The chapter is organized into four sections: research design, selection of participants, data collection methods, and data analysis.

Research Design

This was a causal comparative study using two different research designs to examine the influence of Title V funding on Latinx enrollment and graduation rates. For both research questions there are two dependent variables, enrollment rate and graduation rate. For Research Question One, the independent variable is whether an HSI has received Title V grant funding, in which two different groups of institutions will be compared using a between-groups design. For Research Question Two, the independent variable is also Title V grant funding, in which the same institutions will be compared prior to and after the five-year grant period.

Selection of Participants

The population for this study was four-year HSIs. Enrollment and graduation data by ethnicity are provided annually by institutions to the National Center for Education Statistics (NCES). Institutions are required to report educational data through the Integrated Postsecondary Educational System (IPEDS) in a timely and accurate manner in order to participate in federal financial aid programs. Because of the limited number of HSIs the study used all HSIs that provided data to IPEDS. For Research Question One, all institutions that met the criteria to be

denoted as an HSI were included in the analysis. For Research Question Two, all institutions that were awarded a Title V grant between 2009 and 2014 were included in the analysis.

Data Collection Methods

The U.S. Department of Education's Office of Postsecondary Education posts the eligibility matrix on its website for various federal grant programs once per year (<https://www2.ed.gov/about/offices/list/ope/idades/eligibility.html>). This eligibility matrix provides a listing of all higher education institutions and denotes whether an institution is eligible for Title V funding and whether the institution applied for and was granted funding. For Research Question One, two groups were identified from the 2020 eligibility matrix: (1) institutions that were eligible to apply for Title V funding because it meets the HSI criteria (these were denoted as an eligibility code of "5" in the matrix), and (2) institutions that were current grantees of the program (these were denoted as an eligibility code of "6" in the matrix). The enrollment and graduation data by ethnicity were collected electronically as part of the IPEDS survey and data were compared to prior year submission numbers by staff at the NCES. They also review the data and work with institutions to edit data if necessary. For purposes of this research question, the enrollment and graduation data from IPEDS were gathered only for those institutions that were either eligible to apply for funding or had been granted funding.

The U.S. Department of Education also posts the Title V grant funded projects on its website for all fiscal years back to 2009 (<https://www2.ed.gov/programs/idadeshsi/awards.html>). For Research Question Two, each of the project abstract documents from the website for fiscal years 2009 and 2014 was used to identify the institutions awarded in a given year. The project abstract documents from the U.S. Department of Education compiled all of the awardees' information into a single document. Within this document, there were institutions that were

awarded cooperative development grants and individual development grants. For purposes of this analysis, only the institutions that were awarded individual development grants were used because institutions awarded cooperative development grants were working in partnership with other institutions. For Research Question Two, the enrollment and graduation data from IPEDS were collected for all awardees of individual development grants at the start of the institution's grant (e.g., 2009) and then five years later at the end of the institution's grant (e.g., 2014).

Enrollment data, including total number of students (all ethnicities) and total number of Hispanic students, is reported each spring to IPEDS based on the institution's fall enrollment data. IPEDS publishes the raw data in an enrollment table, as well as derived data in a separate table, which includes the calculated percentage of total enrollment that are Hispanic. Data for Research Question One were derived from the 2019-2020 fall enrollment table (DRVEF2019), which was found in a Microsoft Access database published on the IPEDS website (<https://nces.ed.gov/ipeds/use-the-data/download-access-database>). Data for Research Question Two were obtained from the same website but included enrollment data related to the beginning and ending years of the institution's Title V grant, ranging from 2009 to 2019. Enrollment rate was measured as the percent of Hispanic/Latino students who are enrolled at an institution each year (PctEnrHS).

Graduation data are collected by IPEDS between the months of December and February from institutions. While graduation rates are typically referred to as "four-year graduation rates" or the "six year graduation rates," IPEDS collects the "graduation rate for 150 percent of normal time to complete" (<https://nces.ed.gov/ipeds/use-the-data/survey-components/9/graduation-rates>). Therefore, if the degrees at the institution typically take four years to complete, then IPEDS is collecting graduation rate data on those students who complete their degree within six

years. IPEDS collects the total number of students (all ethnicities) and total number of Hispanic students meeting this criteria. Like enrollment rates, IPEDS publishes the raw data in a graduation rates table, as well as derived data in a separate table, which includes the calculated graduation rate for Hispanic students who complete their degree within 150 percent of the normal time. Data for Research Question One were derived from the 2019-2020 graduation rates table (DRVGR2019), which was found in the same Microsoft Access database published on the IPEDS website as mentioned previously (<https://nces.ed.gov/ipeds/use-the-data/download-access-database>). Data for Research Question Two were obtained from the same website but included graduation rate data related to the beginning and ending years of the institution's Title V grant, ranging from 2009 to 2019. Graduation rate was measured as the percent of Hispanic/Latino students who graduated in a given year from each institution within six years (GRRTHS).

Data Analysis

The first research question was analyzed using an independent samples *t*-test for each dependent variable after testing for statistical assumptions. This method was chosen because the question has a categorical independent variable, a continuous dependent variable, and the goal of the analysis is to determine if there is a statistically significant difference in the means between the two groups of HSIs. Normality was tested using the Shapiro-Wilk test, and homogeneity of variance was tested for using Levene's test. An independent samples *t*-test was then run to determine if there was a statistically significant difference in the mean enrollment and graduation rates between those HSIs that received Title V funding and those that did not. The second research question was analyzed using a dependent samples *t*-test. Normality was tested using the

Shapiro-Wilk test. A dependent samples *t*-test was then run to determine whether there was a statistically significant difference between the enrollment and graduation rates over time.

Summary

A causal comparative research design was utilized to determine the impact of the independent variables (receipt of Title V grant funding and time) on the dependent variables (enrollment rates and graduation rates). Archival data from NCES and IPEDS was used to determine whether there was a statistically significant difference in enrollment or graduation rates between those HSIs receiving Title V funding versus those not receiving Title V funding. Additionally, archival data from NCES and IPEDS was used to determine whether there was a change in enrollment or graduation rates at Title V-funded HSIs between the time prior to the start of the Title V grant and after the Title V grant had concluded.

CHAPTER FOUR: RESULTS

Overview

The purpose of this study was to determine whether the receipt of Title V funding by four-year universities influences Latinx student graduation and enrollment rates. Analysis was completed and two research questions were used to guide the study. The Statistical Package for Social Science (SPSS) software was used to tabulate descriptive statistics as well as run statistical analyses on each of the research questions.

Chapter four presents findings for each of the research questions. The chapter is organized by research question and within the analysis for the research question, descriptive statistics were first reported followed by the results of statistical tests.

Research Question One: Comparison of Latinx Outcomes by HSI Funding Status

Is there a difference in enrollment rates or graduation rates for Latinx students attending Hispanic-serving institutions in the 2019-2020 academic year between those HSIs receiving Title V funding and those HSIs not receiving Title V funding?

The first question examined the relationship between enrollment and graduation rates and whether an HSI received Title V funding. Not all institutions reported both enrollment and graduation rates for Hispanic students to IPEDS, hence the differing sample sizes listed below in Table 1. To analyze this question, independent samples *t*-tests were used for each dependent variable. Prior to the *t*-test being performed, statistical assumptions were tested for each dependent variable. Normality was checked using the Shapiro-Wilk test, which showed that graduation rates followed normal distribution for both the HSIs with Title V funding, $W(85) = .973, p = .07$, as well as for HSIs without Title V funding, $W(153) = .985, p = .09$. Next,

Table 1:
Hispanic Enrollment and Graduation Rates by Funding Status

Variable	HSI with Title V Funding			HSI without Title V Funding		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Enrollment Rate	88	54.25	26.27	162	50.86	27.96
Graduation Rate	85	41.53	15.87	153	44.52	16.84

Levene’s test was used to test for homogeneity of variances among graduation rates, which found equal variances ($F = .04, p = .837$). The results of the t -test indicated that there were no significant differences in Latinx graduation rates between those HSIs that received Title V funding and those that did not receive Title V funding, $t(236) = 1.338, p = .18$. Descriptive statistics for graduation rates are shown above in Table 1.

Next, statistical assumptions were tested for enrollment rates. While the Shapiro-Wilk test showed a significant departure from normality for both HSIs receiving Title V funding, $W(88) = .872, p = <.01$, and those HSIs not receiving Title V funding, $W(162) = .821, p = <.01$, additional tests were reviewed to determine each sample’s normality. Both groups’ skewness were under 1 (.707 and .834, respectively) and both groups’ kurtosis were also under absolute 1 (-.789 and -.830, respectively). In combination with further analysis of the normal Q-Q Plots, the sampling distribution of the mean is assumed to be normal. Therefore, Levene’s test was used next to measure homogeneity of variance, which found equal variances in the two groups ($F = .84, p = .360$). The results of the t -test indicated that there were no significant differences in Latinx enrollment rates between those HSIs that received Title V funding and those that did not

receive Title V funding, $t(248) = -.936, p = .35$. Descriptive statistics for enrollment rates are found above in Table 1.

Research Question Two: Comparison of Latinx Outcomes Over Grant Period

Is there a change in enrollment rates or graduation rates of Latinx students at Title V-funded HSIs between the beginning of the 5-year grant period and the end of the 5-year grant period for those institutions with grant periods ending between 2014 and 2019?

The second question analyzed only those institutions that received Title V grant funding. To analyze this question, dependent samples t -tests were used for each dependent variable. Prior to the t -test being performed, statistical assumptions were tested for each dependent variable. The Shapiro-Wilk test was used to test whether the difference in the enrollment rates of Latinx students between the first year of the grant and the last year of the grant was normally distributed. This test found the data to depart from a normal distribution $W(60) = .945, p = .009$. In reviewing kurtosis and skewness, however, the data was not found to substantially depart from a normal distribution, with a skewness of .942 and kurtosis of 1.39. In reviewing the data for outliers, there were two values determined to be outliers. Both outlier institutions published historical enrollment data on their institutional websites and the research data aligns with the increased Latinx enrollment rates each year over the course of the grant. These do not appear to be erroneous data and they were kept in the sample prior to running the t -test. The dependent t -test found the change in enrollment rates of Latinx students between the first year of the grant and the last year of the grant to be significant, $t(59) = -5.836, p < .001$. Table 2 below shows Hispanic enrollment and graduation rates at the beginning of the grant period and the end of the grant period.

Table 2:
Hispanic Enrollment and Graduation Rates During First and Last Years of Grant

Variable	First Year of Grant			Last Year of Grant		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Enrollment Rate	60	54.77	27.55	60	59.73	25.57
Graduation Rate	60	35.27	13.55	60	37.52	13.82

Using the Shapiro-Wilk test to analyze the difference in the graduation rates between the first year of the grant and the last year of the grant, the data was found to be normally distributed, $W(60) = .967, p = .11$. In reviewing the data for outliers, there were two data points that determined to be outliers. Both outlier institutions published historical enrollment data on their institutional websites and the research data aligns with the increased Latinx enrollment rates each year over the course of the grant. These do not appear to be erroneous data and they were kept in the sample prior to running the *t*-test. The results of the dependent *t*-test indicated that there was a significant difference in Latinx graduation rates between the first year of an institution's Title V grant funding period and the last year of an institution's Title V grant funding period, $t(60) = -2.413, p = .019$.

Summary

Two research questions guided this study to determine the influence of Title V funding on enrollment and graduation rates of Latinx students at HSIs. The first question examined the relationship between enrollment and graduation rates and whether an HSI received Title V funding. The results of the independent *t*-tests found that there were no significant differences in Latinx enrollment or graduation rates between those HSIs that received Title V funding and

those that did not receive Title V funding. The second question examined the change in enrollment and graduation rates for Latinx students between the first and last year of the Title V grant for those funded institutions. The results of the dependent t -test indicated that there was a significant difference in both Latinx enrollment and graduation rates between the first year of an institution's Title V grant funding period and the last year of an institution's Title V grant funding period.

CHAPTER FIVE: DISCUSSION

Overview

While this study did not show significant differences in enrollment and graduation rates of Latinx students between HSIs receiving Title V funding and those not receiving funding, the study did show a significant change in enrollment and graduation rates over the grant period among HSIs that received Title V funding. These results provide insight to both policy makers, who monitor and provide funding to this program, and institutions receiving Title V funding. This chapter reviews the findings of this research, including an overview of how this study connects to the social constructions of target populations theoretical framework, and the existing literature. This chapter also considers implications for practice for both policy makers and institutions and proposes recommendations for further research.

Discussion of the Findings

Previous research has attempted to measure Latinx student outcomes at HSIs. Contreras and Contreras (2015) found that Latinx students had lower graduation rates than their White peers across most California State University campuses, while Perez (2020) found Title V grants were a significant predictor of the raw number of bachelor's degrees awarded to Latinxs but did not find that they were a significant predictor of graduation rates of Latinxs. The goal of this study was to determine whether the receipt of Title V funding by four-year universities influences Latinx student graduation and enrollment rates. This section discusses the following: (1) summary of the findings for each research question, (2) connection of the results to the theoretical framework, (3) connection of the results to existing literature, and (4) limitations of the study.

Summary of Findings

The findings from Research Question One indicate no significant difference in enrollment rates or graduation rates between those HSIs receiving Title V funding and those not receiving Title V funding. Unlike Research Question One, Research Question Two did show a statistically significant change in both enrollment rates and graduation rates of Latinx students between the beginning and end of the Title V grant period.

Connection of Results to Theoretical Framework

Schneider and Ingram (1993) argue that social constructions of target populations can shape policy agendas. Prior literature showed college students were perceived as a deserving target population (Bell, 2020; Li & Zumeta, 2019). Title V funding is specifically designed to expand educational opportunities and improve educational attainment for Latinx students. However, Title V funding may be being utilized by institutions instead to supplement their budgets for programs that do not directly help Latinx students.

The results from Research Question One show that there was no significant change between those institutions that received Title V funding and those that did not receive funding. One could argue that the institutions receiving the funding are putting in the effort to expand educational opportunities for their Latinx student populations, and that the institutions without the Title V funding are finding other ways, perhaps financially or programmatically, to improve the educational attainment for their Latinx student populations. Therefore, in the end, there is no significant difference between the two. Others, however, could argue that the institutions that are receiving Title V funding are not spending the funds on initiatives that positively impact their Latinx student populations and therefore, there is no significant difference between these institutions and the ones that are not receiving funding. There is the potential here for lawmakers

and the media to continue portraying college students as positively-viewed “dependents,” while portraying the institutions as greedy and self-interested “contenders”. Because of this, there may be pressure on legislators to find other ways of improving Latinx student outcomes than through Title V funding.

Research Question Two, however, found that those institutions receiving Title V funding did have significant positive changes in both enrollment and graduation rates. Enrollment rates were expected to increase across the board, mainly because of demographic changes across the nation. The perhaps unexpected significant change, however, was found in the increased graduation rates. One explanation for this change could be that the institutions used Title V funding to increase graduation rates across the institutional population. Like Research Question One, this would reflect poorly on the institution, portraying it as a “contender” that has the power to spend the funds in the way it best sees fit, regardless of whether it is for its intended use. Or, it could be that the institutions used the funding appropriately and positively impacted Latinx educational outcomes. This could place these higher education institutions in the “advantaged” category, portraying them as “public spirited” and “hardworking”. In either case, the students themselves continue to be “dependents,” as they do not have control over how the Title V funding is spent.

Connection of Results to Existing Literature

There were several broad topic areas in the literature that contributed to the design of this study, including demographic shifts in the United States population, HSIs, Latinx college access, and higher education funding. Previous literature related to demographic shifts found that if recent trends continue, the Hispanic population is expected to exceed 100 million by 2050 (Haverluk & Trautman, 2008). The Higher Education Amendments of 1992 defined what an HSI

is and financially incentivized institutions to reach a 25 percent baseline of Hispanic undergraduate students. For most HSIs, the designation was not a benchmark that was actively pursued. Rather, the 25 percent threshold of Latinx students required for HSI status was garnered through demographic shifts and population growth (Garcia, 2017). The findings on Research Question Two related to enrollment rate increases support the previous literature related to demographic shifts. While enrollment rates significantly increased over the Title V grant funding period, these rates most likely would have increased anyway due to population growth. Most likely institutions were not actively using the Title V funding to increase its Latinx student population, but rather demographic shifts dominated.

This study bridged a gap in the existing literature. Prior studies with similar variables used older data, from at least a decade earlier (Perez, 2020). The sharp increase in the number of HSIs in the past decade substantiated the need for updated research on the influence of Title V funding on Latinx educational outcomes. Perez's (2020) research found expenditures per FTE were not significant in predicting Latinx graduation rates at HSIs. Perez (2020) did find, however, that the Title V grants were a significant predictor of bachelor's degrees awarded to Latinxs but did not find that they were a significant predictor of graduation rates of Latinxs. Research Question One's findings were consistent with Perez's (2020) research in that HSIs with Title V funding did not have statistically significant differences in Latinx graduation rates than those without Title V funding.

Limitations

There are some identified limitations of this research. These include: (1) limited sources of measurement of academic success, and (2) influence of multiple other independent variables on the dependent variables. Both research questions analyzed enrollment rates and graduation

rates for HSIs. While there are several variables that could have been chosen related to student outcomes, these were the only two variables that were reported on a national level by race or ethnicity. Variables like retention rates are reported to IPEDS but are not disaggregated by race or ethnicity. Some schools do choose, however, to publish disaggregated data on their institutional research webpages, but the amount of public information varies widely across institutions, especially between public and private universities. Further, even for those institutions choosing to publish detailed data on retention rates or other student outcomes, some only choose to report the last year or two of data rather than several years' worth.

There are a significant number of variables that could ultimately affect an institutions' enrollment and graduation rates. Universally, enrollment rates of Latinx students can be affected by variables including the number of high school graduates, the level of rigor in high school courses, state graduation rate requirements, acceptance rates, and the cost of attendance. At the institution level, enrollment rates could be affected by more short-term impacts on enrollment, including athletic successes, natural disasters, institutional scandals or investigations, and accreditation issues. The difficulty in trying to assess significance of Title V funding on enrollment and graduation rates is that it is unknown how these other variables are affecting rates in conjunction with Title V funding. Further, at a single institution, perhaps Title V funding is the main variable contributing to increased enrollment and graduation rates, but at another nearly institution, there are three other significant variables that impact the rates. Ultimately, this study only analyzed independent variables related to Title V funding.

Implications For Practice

The statistically significant growth in graduation rates for Latinx can be seen as an encouraging sign that institutions' use of Title V funding is influencing the desired student

population. There are additional implications, however, for both institutions and legislators related to the use of Title V funding. First, it is important for all institutions to meet the expectations of the funding. This study looked at HSIs in the aggregate across the nation. However, a breakdown of the institutions that are not showing significant growth in Latinx graduation rates could be more powerful in sparking change at the institution level, as institutions strive to serve an increasing Latinx demographic while remaining in favorable political standing among legislators and taxpayers. As citizens continue to demand transparency and accountability, it will be necessary for institutions to be able to demonstrate how they are using Title V funding for the intended population. Likewise, for those HSIs that have not applied for Title V funding, there may be pressure from their constituencies to question these institutions as to why this federal funding has not been sought at a time when state funding largely continues to decline.

Next, policy makers will continue to pressure higher education institutions. While the results of this study could moderate concerns that institutions are wastefully spending taxpayer dollars, it is more likely that lawmakers will demand further evidence. Federally, lawmakers in Congress are going to be more concerned about the use of Title V funds in the aggregate because they want to know that the funding is significantly impacting the target Latinx population. However, state and local lawmakers are likely less concerned about the use of Title V funds in the aggregate and more concerned about how the institutions in their state or district are utilizing the funds. If local institutions are utilizing Title V funding in an appropriate manner, policy makers could have a more favorable view of institutions' spending of other funds, including state appropriations.

Recommendations for Further Research

As a result of this research, there are three recommendations for additional research that could further help determine whether the receipt of Title V funding by four-year universities is positively influencing Latinx student outcomes. First, Research Question Two found that there was a statistically significant change in Latinx graduation rates between the first and last years of the Title V grant funding. However, further research could look at the same institutions and whether there were changes in graduation rates among other ethnic groups. If a statistically significant change is also shown in graduation rates among non-Latinx students, then the Title V funding may not specifically be helping with student success of Latinx students, but of all students at the institution. While it is encouraging to see positive increases in graduation rates, Title V funding is specifically designated to improve educational outcomes for Latinx students.

Next, it would be helpful to be able to analyze Latinx student outcomes other than graduation rates, enrollment rates, and number of degrees awarded. Franco and Hernandez (2018) recommended that HSIs across the board do a better job of capturing student outcomes both through quantitative and qualitative data. While institutions are required to report retention data to IPEDS to receive federal funding, they are not required to disaggregate the data by race or ethnicity. Most institutions, however, already have this level of data and some institutions post this information on their institutional research websites. To study the data, it would be most helpful if institutions were required to report this level of data to IPEDS. Because this is not currently required, it would take more in-depth research to contact each of the institutions to collect retention data for Latinx students over multiple years. Retention rates could then be analyzed in conjunction with graduation rates to see if there is a statistically significant change over the grant period.

Lastly, further research in the area of Title V grant abstracts could help determine if (1) proposed projects are aimed at improving Latinx educational outcomes, and (2) whether expenditures actually match the grant proposals. A follow-up study of research done by Vargas and Villa-Palomino (2019) would help determine if there has been a shift in Title V funding uses. Vargas and Villa-Palomino's (2019) study analyzed Title V grant abstracts through 2016 and their research found 85 percent of Title V programming efforts were not specifically tailored to Latinx student outcomes. These abstracts are published on the U.S. Department of Education's website, so the newer ones would be readily available. The actual expenditures related to these project abstracts, would be much more difficult to ascertain, especially from private institutions, because these data are not publicly available.

Summary

This study contributed to the body of literature related to Title V funding and its influence on educational outcomes for Latinx students. For those institutions receiving Title V funding, this study found that both enrollment and graduation rates significantly increased over the course of the grant period. The results provide support to institutions and evidence to lawmakers that HSI funding that is meant to expand educational opportunities and improve educational attainment for Latinx students is being utilized as intended. There are, however, opportunities for further research that would provide additional support for this conclusion.

APPENDIX: IRB LETTER



UNIVERSITY OF CENTRAL FLORIDA

Institutional Review Board

FWA00000351
IRB00001138, IRB00012110
Office of Research
12201 Research Parkway
Orlando, FL 32826-3246

NOT HUMAN RESEARCH DETERMINATION

June 15, 2021

Dear [Kelly D'Agostino](#):

On 6/15/2021, the IRB reviewed the following protocol:

Type of Review:	Initial Study
Title of Study:	AN EXPLORATION OF RETENTION AND GRADUATION RATES AS A RESULT OF TITLE V FUNDING AT HISPANIC-SERVING FOUR-YEAR UNIVERSITIES
Investigator:	Kelly D'Agostino
IRB ID:	STUDY00003156
Funding:	None
Grant ID:	None
Documents Reviewed:	<ul style="list-style-type: none"> • HRP-250, Category: IRB Protocol; • Methodology, Category: Other;

The IRB determined that the proposed activity is not research involving human subjects as defined by DHHS and FDA regulations.

IRB review and approval by this organization is not required. This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made and there are questions about whether these activities are research involving human in which the organization is engaged, please submit a new request to the IRB for a determination. You can create a modification by clicking **Create Modification / CR** within the study.

If you have any questions, please contact the UCF IRB at 407-823-2901 or irb@ucf.edu. Please include your project title and IRB number in all correspondence with this office.

Sincerely,

Renea Carver
UCF IRB

REFERENCES

- Archibald, R.B., & Feldman, D.H. (2006). State higher education spending and the tax revolt. *The Journal of Higher Education*, 77(4), 618-644.
- Alshehri, Y.M. (2016). Performance-based funding: History, origins, outcomes, and obstacles. *Journal of Higher Education Theory & Practice*, 16(4), 33-42.
- Barney, J.L. (2020). Louisiana's intentional exposure to HIV policy: The social construction target populations. *Social Work in Public Health*, 35(3), 100-113.
- Bauman, K. (2017). School enrollment of the Hispanic population: Two decades of growth. *United States Census Bureau*. https://www.census.gov/newsroom/blogs/random-samplings/2017/08/school_enrollmentof.html.
- Bell, E. (2020). The politics of designing tuition-free college: How socially constructed target populations influence policy support. *Journal of Higher Education*, 91(6), 888-926.
- Bell, E. (2021). Deserving to whom? Investigating heterogeneity in the impact of social construction of target populations on support for affirmative action. *Policy Studies Journal*, 49(1), 268-299.
- Bjorklund Jr., P. (2018). Undocumented students in higher education: A review of the literature, 2001 to 2016. *Review of Educational Research*, 88(5), 631-670.
- Blume-Kuhout, M.E., Kumar, K.B., & Sood, N. (2015). University R&D funding strategies in a changing federal funding environment. *Science and Public Policy*, 42(3), 355-368.
- Boushey, G. (2016). Targeted for diffusion? How the use and acceptance of stereotypes shape the diffusion of criminal justice policy innovations in the American states. *American Political Science Review*, 110(1), 198-214.

- Bransberger, P. (2017). Fewer students, more diversity: The shifting demographics of high school graduates. *Western Interstate Commission for Higher Education*.
<https://files.eric.ed.gov/fulltext/ED586768.pdf>.
- Bromley-Trujillo, R., Stoutenborough, K., Kirkpatrick, K.J., & Vedlitz, A. (2014). Climate scientists and environmental interest groups: The intersection of expertise and advocacy. *Politics, Groups, and Identities*, 2(1), 120-134.
- Brown II, M.C. (2013). The declining significance of Historically Black Colleges and Universities: Relevance, reputation, and reality in Obamamerica. *Journal of Negro Education*, 82(1), 3-19.
- Brucker, D.L. (2007). Substance abuse treatment participation and employment outcomes for public disability beneficiaries with substance abuse disorders. *The Journal of Behavioral Health Sciences & Research*, 34, 290-308.
- Bundick, B., & Pollard, E. (2019). The rise and fall of college tuition inflation. *Federal Reserve Bank of Kansas City Economic Review*, 104(1), 57-75.
- González Canché, M.S. (2017). The heterogeneous non-resident student body: Measuring the effect of out-of-state students' home-state wealth on tuition and fee price variations. *Research in Higher Education*, 58, 141-183.
- Casellas, J.P. (2010). *Latino representation in state houses and Congress*. Cambridge University Press.
- Chavez, L.R. (2013). *The Latino threat: Constructing immigrants, citizens, and the nation* (2nd ed.). Stanford University Press.
- Cheslock, J.J., & Hughes, R.P. (2011). Differences across states in higher education finance policy. *Journal of Education Finance*, 36(4), 369-393.

Congressional Research Service. (2018). *A primer on U.S. immigration policy*.

<https://crsreports.congress.gov/product/pdf/R/R45020/7>.

Contreras, F., & Contreras, G.J. (2015). Raising the bar for Hispanic serving institutions: An analysis of college completion and success rates. *Journal of Hispanic Higher Education*, 14(2), 151-170.

Copeland, K.D., & Mamiseishvili, K. (2017). The Arkansas lottery scholarship act: An examination of the policy design process. *Educational Policy*, 31(1), 108-136.

Crazy Bull, C., Lindquist, C., Burns, R., Vermillion, L., & McDonald, L. (2020). Tribal colleges and universities: Building nations, revitalizing identity. *Change: The Magazine of Higher Learning*, 52(1), 23-29.

Creswell, J.W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). SAGE Publications, Inc.

DiAlto, Stephanie. (2005). From 'problem minority' to 'model minority': The changing social construction of Japanese Americans. In A.L. Schneider & H.M. Ingram (Eds.), *Deserving and entitled: Social constructions and public policy* (pp. 81-103). State University of New York Press.

Diaz-Strong, D., Gomez, C., Luna-Duarte, M.E., & Meiners, E.R. (2011). Purged: Undocumented students, financial aid policies, and access to higher education. *Journal of Hispanic Higher Education*, 10(2), 107-119.

Dougherty, K.J., Natow, R.S., Hare, R.J, Jones, S.M., & Vega, B.E. (2011). *The politics of performance funding in eight states: Origins, demise, and change*. Community College Research Center, Teachers College, Columbia University.

<https://files.eric.ed.gov/fulltext/ED517751.pdf>

- Dougherty, K.J., Jones, S.M., Lahr, H., Natow, R.S., Pheatt, L., & Reddy, V. (2016). *Performance funding for higher education*. Johns Hopkins University Press.
- Doyle, W.R., & Delaney, J.A. (2009). Higher education funding: The new normal. *Change*, 41(4), 60-62.
- Drew, R.B. (2013). Constructing homeownership policy: Social constructions and the design of the low-income homeownership policy objective. *Housing Studies*, 28(4), 616–631.
- Duncheon, J.C. (2020). What students do early college high schools serve? Unpacking social constructions of the target population. *Education Policy Analysis Archives*, 28(173), 1-26.
- Durán, R. (2020). The changing U.S. Latinx immigrant population: Demographic trends with implications for employment, schooling, and population integration. *Ethnic & Racial Studies*, 43(1), 218-232.
- Eddy, P.L. (2010). Special Issue: Partnerships and Collaborations in Higher Education. ASHE Higher Education Report, 36(2), 1–115.
- <https://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ896396&site=eds-live&scope=site>.
- Eligibility Designations and Applications for Waiving Eligibility Requirements; Programs Under Parts A and F of Title III and Programs Under Title V of the Higher Education Act of 1965, as Amended (HEA), 84 Fed. Reg. 68434 (December 16, 2019).
- Eligibility Matrix. (2020). <https://www2.ed.gov/about/offices/list/ope/idades/eligibility.html#tips>.
- Elliott, J.D., & Parks, R. (2018). Latino students and degree attainment. *College and University*, 93(1), 10-18.
- Ewert, S. (2012). Fewer diplomas for men: The influence of college experiences on the gender gap in college education. *Journal of Higher Education*, 83(6), 824-850.

Excelencia in Education. (2017). Pathway programs: An approach to increasing Latino student degree attainment. <https://www.edexcelencia.org/media/165>.

Excelencia in Education. (2019). Hispanic-serving institutions (HSIs): 2017-2018 infographic. <https://www.edexcelencia.org/research/infographics/hispanic-serving-institutions-hsis-2017-18-infographic>.

Excelencia in Education. (2020a). 25 years of Hispanic-serving institutions (HSIs): A glance on progress. <https://www.edexcelencia.org/Excelencia-25-Yrs-HSIs-Glance-On-Progress>.

Excelencia in Education. (2020b). Latino college completion: United States. <https://www.edexcelencia.org/sites/default/files/LCCStateStats/Exc-2020-50StateFS-USA-05.pdf>.

Franco, M.A., & Hernandez, S. Assessing the capacity of Hispanic serving institutions to serve Latinx students: Moving beyond compositional diversity. *New Directions for Institutional Research*, 177, 57-71.

Funding Status. (2019). <https://www2.ed.gov/programs/idueshsi/funding.html>.

Garcia, G.A. (2017). Defined by outcomes or culture? Constructing an organizational identity for Hispanic-serving institutions. *American Educational Research Journal*, 54(18), 111S-134S.

Garcia, G.A., & Koren, E.R. (2020). Connecting research, practice, and policy to define “servingness” at Hispanic serving institutions. In Garcia, G.A. (Ed.), *Hispanic serving institutions (HSIs) in practice: Defining ‘servingness’ at HSIs* (pp. 1-20). Information Age Publishing.

- Garcia, G.A., Nuñez, A., & Sansone, V.A. (2019). Toward a multidimensional conceptual framework for understanding “servingness” in Hispanic-serving institutions: A synthesis of the research. *Review of Educational Research, 89*(5), 745-784.
- Garcia, G.A. (2020). Hispanic serving institutions (HSIs) in practice: Defining ‘servingness’ at HSIs. Information Age Publishing.
- Gilbert, D.T., & Hixon, J.G. (1991). The trouble of thinking: Activation and application of stereotypic beliefs. *Journal of Personality and Social Psychology, 60*(4), 509-517.
- Gordon, S.D. (1996). The liability of colleges and universities for fraud, waste, and abuse in federally funded grants and projects. *New Directions for Higher Education, 95*, 43-54.
- Grennes, T. (2020). Adapt or suffer: Demographic change and consequences for the United States. *Regulation, 43*(4), 5-7.
- Haverluk, T.W., & Trautman, L.D. (2008). The changing geography of U.S. Hispanics from 1990-2006: A shift to the South and Midwest. *Journal of Geography, 107*(3), 87-101.
- Hemelt, S.W., & Marcotte, D.E. (2011). The impact of tuition increases on enrollment at public colleges and universities. *Educational Evaluation and Policy Analysis, 33*(4), 435-457.
- Hill, N.E., & Torres, K. (2010). Negotiating the American Dream: The paradox of aspirations and achievement among Latino students and engagement between their families and schools. *Journal of Social Issues, 66*(1), 95-112.
- Holder, A., & Flanigan, S.T. (2020). The bureaucratic encounter and shifting social constructions among migrant youth during the DACA application process. *Administrative Theory & Praxis, 42*(3), 319-339.
- Hoy, W.K. (2010). *Quantitative research in education: A primer*. SAGE Publications, Inc.

- Hunsaker, B.T., & Thomas, D.E. (2013). Graduation rates and the higher education demographic evolution. *Journal of Learning in Higher Education*, 9(2), 29-34.
- Hurtado, S., Ramos, H.V., Perez, E., & Lopez-Salgado, X. (2020). Latinx student assets, college readiness, and access: Are we making progress? *Education Sciences*, 10, 1-13.
- Hurwitz, M., & Kumar, A. (2015). Supply and demand in the higher education market: College admission and college choice. College Board.
<https://files.eric.ed.gov/fulltext/ED562849.pdf>.
- Irizarry, J.G. (2012). Los caminos: Latino/a youth forging pathways in pursuit of higher education. *Journal of Hispanic Higher Education*, 11(3), 291-309.
- Jaquette, O., & Curs, B.R. (2015). Creating the out-of-state university: Do public universities increase nonresident freshman enrollment in response to declining state appropriations? *Research in Higher Education*, 56, 535-565.
- Johnson, K.M., & Lichter, D.T. (2008). Natural increase: A new source of population growth in emerging Hispanic destinations in the United States. *Population and Development Review*, 34, 327-346.
- Johnson, K.M., & Lichter, D.T. (2016). Diverging demography: Hispanic and non-Hispanic contributions to U.S. population redistribution and diversity. *Population Research and Policy Review*, 35, 705-725.
- Johnstone, D.B., & Marcucci, P.N. (2010). *Financing Higher Education Worldwide: Who Pays? Who Should Pay?* Johns Hopkins University Press.
- Kandel, W., & Cromartie, J. (2004). *New patterns of Hispanic settlement in rural America*. United States Department of Agriculture, Economic Research Service.
https://permanent.fdlp.gov/lps56059/rdr99_1_.pdf

- Kandel, W., Henderson, J., Koball, H., & Capps, R. (2011). Moving up in rural America: Economic attainment of nonmetro Latino immigrants. *Rural Sociology*, 76(1), 101-128.
- Kane, T. J., Orszag, P. R., & Apostolov, E. (2005). Higher education appropriations and public universities: The role of Medicaid and the business cycle. *Brookings-Wharton Papers on Urban Affairs* 2005, no. 1.
- Kaplowitz, C.A. (2018). The great repudiator and immigration reform: Ronald Reagan and the Immigration and Control Act of 1986. *Journal of Policy History*, 30(4), 635-656.
- Kreitzer, R.J., & Smith, C.W. (2018). Reproducible and replicable: An empirical assessment of the social construction of politically relevant target groups. *PS-Political Science & Politics*, 51(4), 768-774.
- Krogstad, J.M. (2016). 5 facts about Latinos and education. *Pew Research Center*.
<https://www.pewresearch.org/fact-tank/2016/07/28/5-facts-about-latinos-and-education>.
- Kyle, K. (2005). To see or not to see the crisis in the academy: A call for action. *Social Justice*, 32(3), 128-147.
- Lauby, F. (2017). “Because she knew that I did not have a Social”: Ad hoc guidance strategies for Latino undocumented students. *Journal of Hispanic Higher Education*, 16(1), 24-42.
- Lee, Y-T., Ottati, V., & Hussain, I. (2001). Attitudes toward “illegal” immigration into the United States: California Proposition 187. *Hispanic Journal of Behavioral Sciences*, 23(4), 430-443.
- Li, A.Y., & Zumeta, W. (2019). Helping students or just taking their cuts? How prioritization of state student aid programs responds to downturns in higher education appropriations. *Teachers College Record*, 121(8), 1-38.

- Liang, J. (2018). Latinos and environmental justice: Examining the link between degenerative policy, political representation, and environmental policy implementation. *Policy Studies Journal, 46*(1), 60-89.
- Lichter, D.T., & Johnson, K.M. (2020). A demographic lifeline? Immigration and Hispanic population growth in rural America. *Population Research and Policy Review, 39*, 785-803.
- Liu, C-Y.A., & Liu, W-H. (2012). Graduating rates of Hispanic students at minority-majority and minority-minority Hispanic serving institutions: A comparison study. *International Journal of Education Research, 7*(2), 73-85.
- Martinez, G.F., & Deil-Amen, R. (2015). College for all Latinos? The role of high school messages in facing college challenges. *Teachers College Record, 117*, 1-50.
- McDonough, P.M. (1997). *Choosing colleges: How social class and schools structure opportunity*. State University of New York Press.
- McKeown-Moak, M.P. (2013). The “new” performance funding in higher education. *Educational Considerations, 40*(2), 3-12.
- McLendon, M.K., Deaton, R., & Hearn, J.C. (2007). The enactment of reforms in state governance of higher education: Testing the political instability hypothesis. *Journal of Higher Education, 78*(6), 645-675.
- Monnat, S.M. (2020). Trends in U.S. working-age non-Hispanic White mortality: Rural-urban and within-rural differences. *Population Research and Policy Review (39)*, 805-834.
- National Center for Education Statistics. (2016). *Graduation Rates*.
<https://nces.ed.gov/pubs2017/2017046.pdf>.

- National Center for Education Statistics. (2017). *Status and Trends in the Education of Racial and Ethnic Groups 2017*. <https://nces.ed.gov/pubs2017/2017051.pdf>.
- National Center for Education Statistics. (2018a). *The Condition of Education 2018*. <https://nces.ed.gov/pubs2018/2018144.pdf>.
- National Center for Education Statistics. (2018b). *Digest of Education Statistics 2018*. https://nces.ed.gov/programs/digest/d18/tables/dt18_326.10.asp?current=yes
- National Center for Education Statistics. (2020a). *Trends in High School Dropout and Completion Rates in the United States: 2019*. <https://nces.ed.gov/pubs2020/2020117.pdf>.
- National Center for Education Statistics. (2020b). *Undergraduate Retention and Graduation Rates*. https://nces.ed.gov/programs/coe/pdf/coe_ctr.pdf.
- National Center for Education Statistics. (2021). *IPEDS Survey Components: 12 month Enrollment (E12)*. <https://nces.ed.gov/ipeds/use-the-data/survey-components/5/12-month-enrollment>.
- Nellum, C.J., & Valle, K. (2015). *Government investment in public Hispanic-serving institutions*. American Council on Education. <https://vtechworks.lib.vt.edu/bitstream/handle/10919/83976/InvestmentHispanicServingInstitutions.pdf?sequence=1&isAllowed=y>
- The New Accountability: From Regulation to Results. (2002). *New Directions for Institutional Research*, 2002(116), 5.
- Newman, B.J., Shah, S., & Collingwood, L. (2018). Race, place, and building a base: Latino population growth and the nascent Trump campaign for president. *Public Opinion Quarterly*, 82(1), 122-134.

- Nuñez, A., Crisp, G., & Elizondo, D. (2016). Mapping Hispanic-serving institutions: A typology of institutional diversity. *Journal of Higher Education, 87*(1), 55-83.
- Nuñez, A., Hurtado, S., & Calderón Galdeano, E. (2015). Why study Hispanic-serving institutions? In A.-M. Nuñez, S. Hurtado, & E. Calderón Galdeano (Eds.), *Hispanic-serving institutions: Advancing research and transformative practices* (pp. 1-22). Routledge.
- Nuñez, A., & Kim, D. (2012). Building a multicontextual model of Latino college enrollment: Student, school, and state-level effects. *The Review of Higher Education, 35*(2), 237-263.
- Oakes, J., Mendoza, J., & Silver, D. (2006). California opportunity indicators: Informing and monitoring California's progress toward equitable college access. In P. Gandara & G. Orfield (Eds.), *Expanding opportunity in higher education: Leveraging promise* (pp. 19-52). State University of New York Press.
- Oliva, M. (2008). Latino access to college: Actualizing the promise and potential of K-16 partnerships. *Journal of Hispanic Higher Education, 7*(2), 199-130.
- Olivares, M. (2020). The 1986 Immigration and Control Act as antecedent to contemporary Latina/o/x migration. *Chicano/Latino Law Review, 37*(1), 67-82.
- Orellana, M.F. (2001). The work kids do: Mexican and Central American immigrant children's contributions to households and schools in California. *Harvard Educational Review, 71*(3), 366-390.
- Ortiz, C.J., Valerio, M.A., & Lopez, K. (2012). Trends in Hispanic academic achievement: Where do we go from here? *Journal of Hispanic Higher Education, 11*(2), 136-148.
- Pasha, O. (2018). Social justice implications of municipal transportation apportionments in Massachusetts: A case of disparate impact. *Transport Policy, 72*, 109-115.

- Peña, J. (2021). Undocumented students: History and implications for higher education administrators. *Journal of Hispanic Higher Education*, 20(1), 33-45.
- Perez, L. (2020). To what extent are Title V grants and educational expenditures associated with educational attainment of Latinxs at Hispanic-serving institutions? *Journal of Hispanic Higher Education*, 19(4), 323-334.
- Perna, L.W., & Thomas, S.L. (2008). Theoretical perspective on student success: Understanding the contributions of the disciplines. *ASHE/ERIC Higher Education Report*, 34(1), 1-87.
- Pew Research Center. (2019). *Two Decades of Change in Federal and State Higher Education Funding*. https://www.pewtrusts.org/-/media/assets/2019/10/fedstatefundinghigheredu_chartbook_v1.pdf.
- Pierce, J.J., Siddiki, S., Jones, M.D., Schumacher, K., Pattison, A., & Peterson, H. (2014). Social construction and policy design: A review of past applications. *Policy Studies Journal*, 42(1), 1-29.
- Pullias Center for Higher Education. (2017). *Understanding DACA and the implications for higher education*. University of Southern California.
<https://files.eric.ed.gov/fulltext/ED574617.pdf>.
- Ramirez, J.J., Garcia, G.A., & Hudson, L.T. (2019). Mothers' influences on Latino collegians: Understanding Latinx mother-son pedagogies. *International Journal of Qualitative Studies in Education*, 33(10), 1022-1041.
- Rose, M., & Baumgartner, F.R. (2013). Framing the poor: Media coverage and U.S. poverty policy, 1960-2008. *The Policy Studies Journal*, 41(1), 22-53.
- Ross, L. (2006). Where do we belong? Urban adolescents' struggle for place and voice. *American Journal of Community Psychology*, 37(3/4), 293-301.

- Saenz, R. (2020). Latino continual demographic growth: Implications for educational practices and policy. *Journal of Hispanic Higher Education, 19*(2), 134-148.
- Santiago, D.A., Cunningham, A.F., & Excelencia in Education. (2005). *How Latino students pay for college: Patterns of financial aid in 2003-2004*. Retrieved from:
<https://eric.ed.gov/contentdelivery/servlet/ERICServlet?accno=ED506050>.
- Schneider, A., & Ingram, H. (1993). Social construction of target populations: Implications for politics and policy. *American Political Science Review, 87*(2), 334-347.
- Schneider, A.L., & Ingram, H.M. (2019). Social constructions, anticipatory feedback strategies, and deceptive public policy. *Policy Studies Journal, 47*(2), 206-236.
- Snyder, M.J. (2015). *Driving better outcomes; Typology and principles to inform outcomes-based funding models*. HCM Strategists. <http://hcmstrategists.com/wp-content/uploads/2015/07/Driving-Outcomes-Report-final.pdf>
- Sólorzano, D.G., Villalpando, O., & Oseguera, L. (2005). Educational inequities and Latina/o undergraduate students in the United States: A critical race analysis of their educational progress. *Journal of Hispanic Higher Education, 4*(3), 272-294.
- Stabile, B., Grant, A., Purohit, H., & Rama, M. (2019). “She lied”: Social construction, rape myth prevalence in social media, and sexual assault policy. *Sexuality, Gender & Policy, 2*(2), 80-96.
- Su, R. (2013). The states of immigration. *William & Mary Law Review, 54*(4), 1339-1407.
- Sui, M., & Paul, N. (2017). Latino portrayals in local news media: Underrepresentation, negative stereotypes, and institutional predictors of coverage. *Journal of Intercultural Communication Research, 46*(3), 273-294.

- Sullivan, G., Blackbourn, M., & Corvese, L. (2016). *UMass at a crossroads: Part 3: UMass' growing dependency on tuition and fees and strategic recruitment of out-of-state students* [White Paper No. 147]. Pioneer Institute for Public Policy Research.
<https://files.eric.ed.gov/fulltext/ED598661.pdf>.
- Toutkoushian, R.K., & Paulsen, M.B. (2016). *Economics of higher education: Backgrounds, concepts, and applications*. Springer Netherlands.
- Tyson, W., Lee, R., Borman, K.M., & Hanson, M.A. (2007). Science, technology, engineering, and mathematics (STEM) pathways: High school science and math coursework and postsecondary degree attainment. *Journal of Education for Students Placed At Risk*, 12(3), 243-270.
- 20 U.S. Code § 1101a. (n.d.). Title 20 Chapter 28 Subchapter V Part A Hispanic-Serving Institutions: Definitions, Eligibility. <https://www.law.cornell.edu/uscode/text/20/1101a>.
- 20 U.S. Code § 1101b. (n.d.). Title 20 Chapter 28 Subchapter V Part A Hispanic-Serving Institutions: Authorized Activities. <https://www.law.cornell.edu/uscode/text/20/1101b>.
- U.S. Census Bureau. (2020). Demographic turning points for the United States: Population projections for 2020 to 2060.
<https://www.census.gov/content/dam/Census/library/publications/2020/demo/p25-1144.pdf>.
- U.S. Census Bureau. (2019). Table A-5a. Population 14 to 24 years old by high school graduate status, college enrollment, attainment, sex, race, and Hispanic origin: October 1967 to 2018. <https://www.census.gov/data/tables/time-series/demo/school-enrollment/cps-historical-time-series.html>.

- U.S. General Accountability Office. (2014). Federal student loans: Impact of loan limit increases on college prices is difficult to discern. <https://files.eric.ed.gov/fulltext/ED561998.pdf>
- Valcore, J.L., & Dodge, M. (2019). How hate crime legislation shapes gay and lesbian target groups: An analysis of social construction, law, and policy. *Criminal Justice Policy Review*, 30(2), 293-315.
- Vargas, N., & Villa-Palomino, J. (2019). Racing to serve or race-ing for money? Hispanic-serving institutions and the colorblind allocation of racialized federal funding. *Sociology of Race and Ethnicity*, 5(3), 401-415.
- Vela, M., & Gutierrez, P. (2017). The Hispanic population and Hispanic serving institutions. *EJournal of Education Policy*, 1–15.
- Wallace, S.J. (2014). Examining Latino support for descriptive representation: The role of identity and discrimination. *Social Science Quarterly*, 95(2), 311-327.
- Zarate, M.E., & Gallimore, R. (2005). Gender differences in factors leading to college enrollment: A longitudinal analysis of Latina and Latino students.