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Latino/a First Generation Students in College:  
A Mixed Methods Review of Four-Decades of Literature

By  
Ted Campos

A dissertation submitted to the Faculty of Claremont Graduate University in partial fulfillment of  
the requirements for the degree of Doctor of Philosophy in the School of Educational Studies

Claremont Graduate University  
2021



## **APPROVAL OF THE REVIEW COMMITTEE**

This dissertation has been duly read, reviewed, and critiqued by the Committee listed below, which hereby approves the manuscript of Ted Campos as fulfilling the scope and quality requirements for meriting the degree of Doctor of Philosophy in Education with a concentration in Higher Education/Student Affairs.

Linda Perkins, Ph.D., Chair  
Claremont Graduate University  
Associate University Professor  
Director, Applied Gender Studies

David Drew, Ph.D.  
Claremont Graduate University  
Professor of Education  
Joseph B. Platt Chair in the Management of Technology

Eligio Martinez, Ph.D.  
Claremont Graduate University  
Senior Research Fellow

## **Abstract**

Latino/a First Generation Students in College:

A Mixed Methods Review of Four-Decades of Literature

By

Ted Campos

Claremont Graduate University: 2021

The research was a mixed methods review of the experiences of Latino/a First Generation students in college. Their experiences were identified through a quantitative component of identifying what had been published pertinent to this demographic and sectioning those publications into one of four decades when they were distributed. This quantitative portion of the research included a review of all published articles on the subject that appear in four scholarly, peer-reviewed journals from its inaugural issue to its final issue on December, 2020. The total publications analyzed were 5,103.

The qualitative portion of the research was comprised of interviews of sixteen Latinos/as who were first in their families to attend college; four from each of four decades of research interest. Moreover, these participants were also identified as having attended an academic institution that was either a public, private, community college, or HBCU/HSI institution. Covid 19 mandates of social distancing were adhered to and interviews were conducted via virtual meeting software.

Research findings indicated that financing college was of greatest concern to the research participants across all parameters, and this was corroborated with the number of publications on the topic; this held true for each decade of investigation. Additional areas of mixed-

methodological agreement were related to Academic preparation; Teachers-mentors; Family Involvement, Structure & finances; Parental Expectations; Perseverance, Resiliency & Persistence; Access, Assistance & resources; Identity; and Community College.

The findings led to two recommendations for institutional modification related to funding for education and pre-collegiate preparation programs like AVID and Puente. One additional recommendation was made to create a new perspective related to universities and their public school partners.

## **Dedication**

My journey to this point has been a long one. I dedicate this dissertation to my loving wife, Dr. Isabel Mora-Campos, for whom I have the deepest love, respect, and privilege with which to spend my days.

I also dedicate this work to my daughters, Lauren & Cathy, and to my son, Eddie, in heaven. You all have inspired me to great depths. Your attentiveness, stubbornness, and joy for life have been my source of comfort and desire to set a good example...tag, your it!

To my mother, Juana F. Campos, I thank you for your hard work in raising seven children and always pushing me to do well in school. I don't know how you did it, but I am blessed to have you see this end of my journey.

I also wish to dedicate this accomplishment to my Rugby brothers who have demonstrated that success comes from personal fortitude and relying on the strong shoulders of others.

***Proficiscantur fortitudine et prudentia***

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## **Chapter 1: Statement of the Problem**

### **Introduction**

Like many who are on a quest for information, peer-reviewed academic journals are a prized source of information on what is happening in the field of education. These journals comprise the pulse of Academia in regards to research and policy. Ladson-Billings, Editor of the American Education Research Journal (1999-2001), noted that each issue is received with equal parts of accolades and scathing reviews. The readership, “learn something from the journal- new theoretical perspectives, new empirical results, new insights” (Ladson-Billings & Tate, 1999). The study is a review of published articles in four peer-reviewed journals on the experiences of first generation Latinos/as in college, as well as a narrative inquiry of these experiences as told in first-person statements.

### **Background of the Study**

Latinos have been one of fastest growing demographics in the United States and reached their peak growth rate from 1995 to 2000 (Pew Research Center, 2020). This population is identifiable in language, customs, employment patterns, and educational attainment; notable, only 35% of Mexican American students attaining a Baccalaureate degree within 4 years (Oseguera, 2005). The Latino population in the Southwestern states has an added characteristic of being engrained in the manual labor sector of agriculture and manufacturing. They maintain their strong work ethic even as they maneuver new horizons in higher education. First generation students in college (those who are first in their families to attend college) have been observed, surveyed, researched, analyzed, and been the focus of publications in some form or fashion since post WWII (Anderson & Johnson, 1971; Bean, 1985, Zambrana, Ray, Espino, Castro, Cohen, & Eliason, 2015). What characteristics, special needs, or limitations they

possess; and where they fit in with the educational landscape has been a constant source of pragmatic, procedural, and policy considerations for university institutions. The need to understand and manage the demographic that is percolating from k-12 education, and changing career options, towards collegiate attendance has led the direction of what is studied. Academic publishing is often an outgrowth of the current wave of an educational construct centered on an interest of the moment (Clay, 2019). Research documents that center on the experiences of first generation students in college have been published in a myriad of governmental, independent, and educational publications that each targets certain biases in society. Key trends in a trans-temporal review of the experiences of first-generation students in college can be made evident through an analysis of journal publications that focus on educational practices. Most journals emphasize research that touches upon their reader's interests; as in re-entry students or non-traditional transfers. When one reviews the entirety of a publication's database, streams of topics should arise and illuminate a pattern of matriculation and exit for a given context or demographic. These are the areas that will be identified in a systematic review of four peer-reviewed publications for the last four decades.

One of the first steps in improving conditions for any system is to recognize impediments to its optimum operation. However, an understanding of what previous corrective measures have been implemented and what measures have been applied successfully must also be a component of effective management and planning. The influence of first generation students in college, both positive and negative, is not a new manifestation in academia. This largely, nebulous yet growing portion of the college-going population needs direct attention in regards to admissions, finances, matriculation, and many other components. It would behoove collegiate administration to not rewrite policy when addressing the needs of this population, but rather modify existing



policy according to current variances in this college going demographic. While the literature has addressed the identification and patterns of students who are first in their families to attend college (Billson & Terry, 1982; Choy, 2001; Dey & Hurtado, 1995; Pascarella, Springer, Yaeger, Terenzini, & Nora, 1996; Pascarella & Terenzini, 1991; Pryor, Hurtado, Saenz, Santos, & Korn, 2007; Tinto, 1975), the literature is limited on systematic publications that seeks to identify patterns in attendance across the decades for these students. Such a source would illuminate administrators in creating policy, validating current policies, or allocating funds prudently. Some social conditions, environmental factors, family priorities, and other related conditions that were apparent in a particular decade may be present currently and a source of attention for college administration. A growing body of work now illuminates distinctions in pathways to success being tainted by feelings of inadequacy or unfamiliarity with the collegiate world (Hurtado & Carter, 2007; Jack, 2019). Thus, there remains a need for a source that identifies elements surrounding Latino/a first generation students in college as delineated by decade specific conditions; this information may describe a cyclical nature of programs, which may need to be revisited to benefit the current population of college students.

### **Need for the Study**

How students succeed in college has been a continuous area of research across different areas of scholarly interest. This topic has changed emphasis in studies and recommendations for institutional practice dependent on the status of enrollment of a particular demographic and their attendance patterns. The past forty-year window of research on the experiences of Latino/a first-generation students in college has gained popularity amongst researchers (Deegan & Tillery, 1986; Jones, 2005; Selznick & Matthew, 2019) and has, from what started from a seminal publication of how college affect students (Pascarella & Terenzini, 1996) in academic

publications, given way to more specialized publications on matters significant to this population. The experiences, successes, and failures of Latino/a first generation students in college is becoming ever more important to understand their college attendance patterns given that their number are increasing, and the percentage of under-represented minorities (URM's) comprise the largest percentage of the general population (Pew Research Center, 2004). In the preceding decades of collegiate studies, Latino/a first-generation students made up a small and homogeneous population among the research conducted at the time. Indeed, traditional studies conducted on how college affects students has been premised on a population that is based largely on samples of "traditional", white undergraduate college students ages 18-22 who attended four-year institutions full-time, who lived on campus, who didn't work, and who had few, if any, family responsibilities (Covarrubias et al., 2019; Dey & Hurtado, 1995; Pascarella & Terenzini, 1991). This population was first studied using a behaviorist model to explain the role of the individual actor either in the milieu of collegiate matriculation or self-exit from collegiate studies. These studies centered on issues of persistence, degree attainment, and social integration (Billson & Terry, 1982; Jack, 2019; Tinto, 1975). The current decade of study has brought a shift in the investigational focus on the part of researchers. The latest trend is focused on institutional parameters that enhances, or limits, the full development of the Latino/a first-generation student in college (Covarrubias, Valle, Laiduc, & Azmitia, 2019; Garza & Fullerton, 2018). Moreover, some researchers have begun investigating the next phase in socio-collegiate parameters of second-generation students (Kouyoumdjian, Guzmán, Garcia, & Talavera-Bustillos, 2017; Pew Research Center, 2004; Pike & Kuh, 2005). The current study will serve to fill a gap in the literature to identify the trends in the articulation on the experiences of Latino/a students who are first in their families to attend college. The research took a

systematic approach to detail the developments and how past programs may be revisited to address this ever growing population.

### **Purpose of the Study**

The purpose of the research was to synthesize information that has been published on the experiences of Latino/a first generation students in college across the last four decades in academic periodicals, and interviews of sixteen Latinos/as who were first in their family to attend college were conducted to understand social patterns which may have been evident during their enrollment in college. While this demographic has been referred to in some form or fashion in academic, peer-reviewed publications since their emergence post WWII, there has been no systematic review of all the published works that address their contributions or demand on the academic landscape. Moreover, there has been no source for identifying variations in definition, arrangement, or policy regarding Latino/a first-generation students that can be used as an organizational tool by an academic institution that services this population. This research will begin to synthesize the various themes that have emerged across the decades of academic research on this significant group of college students. This study will be a mixed methods analysis of literature from four groups of decade-specific publications on higher education. The outcome will be to generate recommendations for multiple levels of educational institutions in better serving this growing population.

### **Significance of the Study**

This research is important due to the generational increase in the number of minority student, especially across the Southwestern U.S. (Fry, 2011; Gandara, 2015) who will be first in their families to attend college. This is most applicable to Latinos/as who are the largest racial or ethnic minority group in the United States and who will make up the projected 53% of ethnic

minorities in K-12 education (Pew Research Center, 2020) and will undoubtedly have implications for the college going population. The conclusions and recommendations in this study can guide individuals on what to expect and how they may overcome challenges that are particularly manifested with this demographic. With the knowledge included in this study, prospective students can be much better consumers of the educational system. Moreover, colleges and universities may use the findings in this research to plan, prepare, and service Latino/a first generation students.

### **Research Question**

Latinos are one of fastest growing demographics in the United States (Pew Research Center, 2004). First generation students in college (those who are first in their families to attend college) have been observed, surveyed, researched, analyzed, and been the focus of publications in some form or fashion since post WWII. What characteristics, special needs, or limitations they possess; and where they fit in with the educational landscape has been a constant source of pragmatic, procedural, and policy considerations for university institutions. The need to understand and manage the demographic that is percolating from K-12 education, and changing career options, towards collegiate attendance has led the direction of what is studied. Academic publishing is often an outgrowth of available funding sources or the current wave of an educational construct centered on an interest of the moment. Research documents that center on the experiences of first generation students in college have been published in a myriad of governmental, independent, and educational publications that each targets certain biases in society.

Key trends in a trans-temporal review of the experiences of Latino/a first-generation students in college can be made evident through an analysis of journal publications that focus on

educational practices. Most journals emphasize research that touches upon their reader's interest; as in re-entry students or non-traditional transfers. When one reviews the entirety of a publication's database, streams of topics should arise and illuminate a pattern of matriculation and exit for a given context or demographic. These are the areas that will be identified in a systematic review of four peer-reviewed publications from the last four decades.

One of the first steps in improving conditions for any system is to recognize impediments to its optimum operation. However, an understanding of what previous corrective measures have been implemented and what measures have been applied successfully must also be a component of effective management and planning. The influence of Latino/a first generation students in college, both positive and negative, is not a new manifestation in academia. This largely, nebulous yet growing portion of the college-going population needs direct attention in regards to admissions, finances, matriculation, and many other components. It would behoove collegiate administration to not rewrite policy when addressing the needs of this population, but rather modify existing policy according to current variances in this college going demographic. While the literature has addressed the identification and patterns of students who are first in their families to attend college (Billson & Terry, 1982; Choy, 2001; Dey & Hurtado, 1995; Pascarella, Springer, Yaeger, Terenzini, & Nora, 1996; Pascarella & Terenzini, 1991; Pryor, Hurtado, Saenz, Santos, & Korn, 2007; Tinto, 1975), the literature is limited on systematic publications that seeks to identify patterns in attendance across the decades for these students. Such a source would illuminate administrators in creating policy, validating current policies, or allocating funds prudently.

Some social conditions, environmental factors, family priorities, and other related conditions that were apparent in a particular decade may be present currently and a source of

attention for college administration. A growing body of work now illuminates distinctions in pathways to success being tainted by feelings of inadequacy or unfamiliarity with the collegiate world (Hurtado and Carter, 2007; Jack, 2019). Thus, there remains a need for a source that identifies elements surrounding Latino/a first generation students in college as delineated by decade specific conditions; this information may describe a cyclical nature of programs, which may need to be revisited to benefit the current population of college students.

The study sought to synthesize four decades of scholarly publishing in four peer-reviewed journals that describe the experiences of Latino/a first generation students in college. While there has been an increasing amount of research on this topic, most of the research is limited to solely a quantitative review of data sets (Pascarella & Terenzini, 1991). The study sought to only *begin* with a quantitative analysis of correlated topics related to this demographic, but then integrate these findings with the real-life experiences of students who had their first year in college in each decade.

Thus, the study focused on the following questions:

- Quantitative: Is the number of peer-reviewed articles on Latino/a first generation students significantly different over from the last four decades (2020-2010, 2009-2000, 1999-1990, and pre-1989)?
- Qualitative: What are the salient themes that emerged from Latino/a first generation students who attended college in each of the four decades (2020-2010, 2009-2000, 1999-1990, and pre-1989)?

- Mixed-Methods Question: How do the lived experiences of Latino/a first generation students support or refute the topics studied in each of the identified decades of research (2020-2010, 2009-2000, 1999-1990, and pre-1989)?

### **Definition of Terms**

The premise of the study was set from a desire to know how the world of academic publishing has related to the topic of Latino/a students who were first in their families to attend college. An exploratory review of peer-reviewed publications suggested that there were certain trend emphasized within its published editions. This would lead us to identify key terms that were evident when relating to this demographic. From a compilation of references made across a multitude of related articles and a conference presentation (Bean, 1985; Billson & Terry, 1982; Pascarella & Terenzini, 1991; Rendón, 1992; Reese-Miles and Dyckhoff-Stelzriede, 2015), the guiding list of thirty-two (32) key terms/phrases (KTP) were generated.

These terms/definitions guided the research:

**Academic preparation:** To go beyond remediation by providing students with opportunities to take advanced course-work such as honors, Advanced Placement, and dual enrollment courses (Engle & O'Brien, 2006).

**Access:** The process by which prospective students have the opportunity to “engage in an extensive search and choice process” to enroll at a college they desire (Hurtado & Carter, 1997).

**Border living:** Border living describes the act of operating regularly within two (or more) cultures that promote distinct and sometimes opposing values, beliefs, behaviors, and practices (Phelan, Davidson, & Cao 1994).

**Culture shock:** A common state of anxiety or frustration that new students may feel as they learn what is expected of them at the university (Furnham, 2004).

**College finance:** The importance of low college expenses and the availability of financial aid in choosing a college (Chen, 2010).

Community College: A postsecondary education site designated as a 2-year institution (Freeman, 2017).

Cultural capital: A set of cultural credentials (e.g., language, clothing, and “tastes”) that certify eligibility for membership in status- conferring groups. Cultural capital is not widely owned and must be acquired over time (Bourdieu, 1973).

Cultural deprivation: A lack of cognitive meaning, which leads to social, educational and economic disadvantage (Hess & Shipman, 1965).

Double consciousness: Learning the social codes connected with dual cultures, an individual can develop a double consciousness, or a divided social identity (Levin, Walker, & Jackson-Boothby, 2013).

Family finances: The preparation for meeting the cost of college attendance as identified through parental financial decisions such as starting a savings account, buying an insurance policy, buying U.S. savings bonds, investing in stocks or real estate, and/or setting up a college investment fund (Chen, 2010).

Family Involvement: Issues related to transition from high school, family obligations, and home responsibilities while in college (Cooper, Jackson, Azmitia, & Lopez, 1995).

Genetic inferiority: A student’s lack of success due to them not being “smart” enough to learn the material taught in regular classrooms (Herrnstein, 1973).

Hidden curriculum: The set of rules, guidelines, or expectations that is often not taught directly but it is assumed to be known. In higher education, this curriculum may be manifested in the classroom, architecture, and university activities (Margolis, 2001).

Hyper-segregation: An intense clustering of students that tend to offer different and inferior courses and levels of competition, creating a situation where the most disadvantaged students receive the least effective preparation for college (Gandara & Contreras, 2009).

Identity: A process of exploration among relatively unrestricted educational and career opportunities that touch upon culture, ethnicity, family and other areas (Cooper et al., 1998)

Immigration: The movement from a different country to a new country with limited knowledge or experience in the new setting (Nevárez-LaTorre, 2011).

Imposter syndrome: Feelings of inadequacy, despite evidence to the contrary. High- achieving individuals may fear being “found out” as a fraud, believing that everyone else around them possesses knowledge, skills, and competencies they do not (Canning, LaCosse, Kroeper, & Murphy, 2020).



Linguistic barriers: Academic readiness for college, such as level of English language skills (Cabrera, Diel-Ama, Prabhu, Terenzini, & Franklin, 2006).

Meritocracy: Refers to a social system in which individuals get ahead and earn rewards in direct proportion to their individual efforts and abilities; the concept of the American Dream” is rooted in this idea (Greenberg, 2004).

Non-traditional: Students identified to generally be older, working full time, female, and non-white (Pascarella & Terenzini, 1991).

Opposing behaviors/ beliefs: Related to persistence-refers to things in an everyday world of a person and the acts on how to they interpret them and thus remains a reality for them (Attinasi, 1989).

Parental Expectations: Refers to parental dispositions to encourage and support academic endeavors for their children albeit when it conflicts with their availability to actively participate due to work and obligations (Fuligni, 1997).

Persistence: Refers to staying enrolled and attaining a degree (Choy, 2001).

Poverty: A measure of family income that falls below the federal poverty baseline (Jung, Fuller, & Galindo, 2012).

Privilege: An advantage that certain individuals have over others. Common forms of privilege that surface in first-gen studies include institutional knowledge, mentorship, financial literacy, and social capital (Reese-Miles & Dyckhoff-Stelzriede, 2015).

Re-entry: Adult learners who have been absent from formal schooling for three years or more (Given, 2000).

Residential/commuter: Students who live off campus with or without their parents/Students who live in dormitories or residence halls on their college or university campus (Regalado & Smale, 2018).

Self-efficacy: A person’s beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives (Torres & Solberg, 2001).

Social capital: Refers to individual and family connections that help an individual gain access to education, occupational and economic opportunities (Reese-Miles & Dyckhoff-Stelzriede, 2015).

Survivor’s guilt: In higher education, a concept that describes the feelings of guilt associated with leaving family and friends behind in pursuit of new opportunities (Reese-Miles & Dyckhoff-Stelzriede, 2015).

Teacher/Mentor: Persons who carry the importance as individuals who provide guidance and support in the process of enrolling and attending higher education institutions (Gamez, Lopez, & Overton, 2017)

Latino/a First Generation: Students of Latin-American descent wherein neither of their parents had more than a high school education (Choy, 2001).

### **Research Design**

The research was a mixed method, quantitative and qualitative, review of the experiences of Latino, First generation students in college. The quantitative portion of the research included a review of published reports and articles on the topic that appeared in four scholarly, peer-reviewed journals. The investigation touched upon the areas of interest that were identified by the publications during four distinct decades on the topic of Latino first-generation students attending college. The journals were the American Educational Research Journal, the Journal of Hispanic Higher Education, Research in Higher Education, and the Journal of Latinos and Education. Articles were selected from publication dates from four, decade-long timeframes identified for research collecting; these decade parameters were from the years 2010 to current, 2000 to 2009, 1990 to 1999, and prior to the 1990's.

The qualitative portion of the research included interviewing sixteen individuals, using state mandated social distancing guidelines that were in effect at the time, via virtual meeting software (i.e.: Zoom, Microsoft Teams, etc.). Four participants from each of the identified four decades of research interest were interviewed for this qualitative portion of research. Each decade's interview participants pertained to one of the four areas of collegiate affiliation (public, private, community, and HBCU/HSI<sup>1</sup>).

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<sup>1</sup> A Historically Black College or University (HBCU) is a college or university that was

The first component of the research incorporated a quantitative review of published articles that would have been accessible to, and informed, Academia during that time frame. The intended analysis was to evaluate what KTP in the study of first generational college students stood out according to a decades review. Each article from the four journals was evaluated for its use of the KTP in its title, body, or intent. Descriptive statistics were used to describe data of reference of each decade to consider latent dimensions in the variables that may predict group membership.

A qualitative element of investigation engaged virtual interviews from sixteen (16) Latino/a participants who were first in their families to attend college in each decade of study (four participants from each of the four decades). Participants were recruited to join in the research through recruiting emails. Participants were informed of the opportunity to inform research on the experiences of Latino/a first generation students in college. Participants were selected through a random process subject to their identification in the decade/institutional type required. They were informed of the need to gather participants that span the four identified decades of investigation. Four (4) participants were selected from each of the following collegiate institutional types: Public, Private, Community, and HBCU (Historically Black Colleges and Universities) or HSI (Hispanic Serving Institutions). The interview process entailed a semi-structured script that allowed for a narrative inquiry approach to be followed. Questions addressed the individual's experiences related to being first in their family to attend college. Interviewee data was coded and evaluated with NVivo software to identify salient themes that were extracted from the qualitative data.

## **Assumptions and Limitations**

### **Assumptions**

The premise of the research was to compile information on what has been published in regards to the experiences of Latino/a students who are first in their families to attend college. Due to the nature of qualitative research, there was a reliance on subjects to participate in the interview process of their own volition and to share information about their background and experiences to the best of their recollection; there was also a reliance that their statements, vocal and written, would be factual in nature and/or to the best of their recollection. Moreover, the qualitative data in the research came from findings in published articles from peer-reviewed journals and were assumed to be reflective of the state of interest in Academia at the time of publication.

### **Limitations**

It is important to note that all research is limited to some degree based on various factors beyond the control of the researcher or design oversight. The limitations of this study include, but is not limited to:

1. The total quantitative data set was 5,103 and due to the large amount of articles to evaluate, some data that may have centered on the research question could have been omitted.
2. The quantitative portion of this study included a three-phased review of articles. Each phase inherently carries a level of researcher bias.
3. Due to the personal and revealing nature in the line of questioning and perhaps due to a sense of self-preservation, interview participants may have skewed or

omitted information from their responses that may have been valuable to the study.

4. Interview participants were gathered through a restricted process due to Covid 19 regulations and thus some participant were of social or collegial acquaintance with the researcher. This may have limited the participant's level of comfort to disclose certain information.

### **Organization of the Remainder of the Study**

The study consists of five chapters. Chapter 1 is the introduction, which is an introduction and background of the problem. Chapter 2 presents a review of the literature. It is divided into the following sections: Background and Demographics, Socio/Background factors, Pre-Collegiate Characteristics, Early Outreach Programs, Mathematics Course Taking, Pre-1990 Focus, the First Year Experience, Integration into the College Experience, Private vs. Public University Enrollment, and Socio-cultural Patterns including Enrollment/Retention Issues and Dropout Characteristics. Chapter 3 includes methodology, procedures for data collection and analysis, and instrumentation. Chapter 4 includes a presentation and an analysis of the data and results. The final chapter, Chapter 5, provides a summary of the findings, conclusions, and recommendations for future research.

## **Chapter 2. Literature Review**

### **Methods of Searching**

Latino/a first generation students in college have been a demographic growing in numbers, complexity, and attention received from academic researchers (Gamez, Lopez, and Overton, 2017; Gandara & Contreras, 2009; Gandara, 2015; Garza & Fullerton, 2018; Kurlaender, 2006; Pascarella & Terenzini, 1991). There has been an identifiable change in the ontology of this population and the study sought to demarcate the changes across the past four decades of academic publishing. A baseline definition of the population was established through a systematic review of relevant research of books, publications, articles, and blogs germane to those who were first in their families to attend college. The process began similarly to the guidance from a noted and respected scholar on racial dynamics on college campuses (Nolan Cabrera, personal communication, February 20, 2020) by conducting a Google Scholar and an ERIC search using key words like “Latinos in college” and “Latino college success.” Once that search was concluded, and armed with information from graduate courses on Cultural Diversity, specific journal websites were searched for “first generation” and “Pascarella and Terenzini.” As those articles emerged, they were cross-referenced to verify if they were related to issues on Latino/a first year experiences in college. The process continued with the annotation of embryonic publications in the study of student diversity (Billson & Terry, 1982; Pascarella & Terenzini, 1991; Tinto, 1975) and extended with doing the same with said studies’ references. This process continued until there was a notable return to the initial study; a diminishing return of new references. Our epistemology of first generation students in college evolved from this process and led to the development of our theoretical orientation and subsequent literature review.

## Theoretical Orientation for the Study

The emergence of non-traditional students on college campuses, post WWII, necessitated that academic institutions throughout the nation acquiesce their strict regimen on admissions and open their doors to embrace such a sizable demographic on their campuses. For each decade that non-traditional students have sought to attend an institution of higher education, it has brought with it a general opinion on the part of university personnel on the preparation and ability of Latino/a first generation students to succeed in college. Early perspectives maintained a negative stereotype that these students were culturally deficient in the necessary academic *accouterment* for collegiate studies.

First generation Latino students tend to come from families with lower socioeconomic status (SES), which can possibly exert additional stresses on these students (Excelencia in Education / Institute for Higher Education Policy, 2005). A family's inability to contribute to educational costs often necessitates these students to have to work long hours. Additionally, Latino/a students' limited understanding of the financial aid process limits the revenue that may have come from this source. Two key areas interfere with Latino/a parents of students who are the first in their families to go to college; their limited abilities in the English language and their inability to provide support due to their inexperience with higher education (Perna & Titus, 2005). First-generation Latino students, themselves, may encounter additional challenges as they matriculate into college. These challenges include lack of financial support, language barriers, and academic under preparedness (Oseguera, Locks, & Vega, 2009; Zalaquett, 2006).

In sum, multiple factors that first generation Latino/a students encounter may taint their perception of academic readiness for college and impede a successful transition to higher education. Some institutions, notably admission restrictive private institutions, held fast to gate-

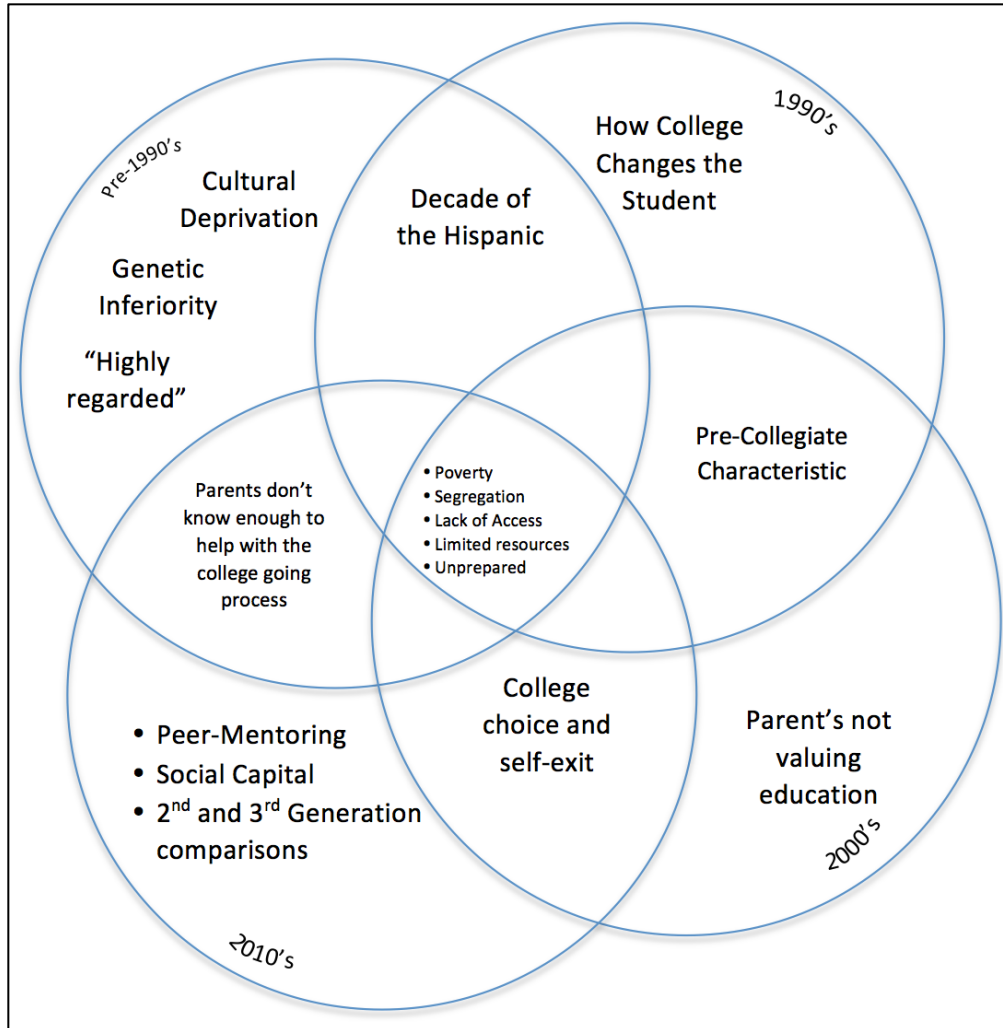
keeping policies that were not supportive of students with alternate experiences and what their preparation had to offer. Jack (2019) writes of his personal difficulties in being a first generation student in college as being part of the “privileged poor” in his attendance at an elite, private college; being poor and unfamiliar with his “new world.” He received specialized pre-collegiate, academic instruction at a preparatory school. Universities that were guided with government monies and inclusive regulations led the way for the beginning of what would be a revolution in regards to students who’s academic experiences and opportunities were limited.

The guiding framework for the current research is to identify themes that were evident across the various decades of academic research and subsequent publication. It is believed that print, and subsequent digital, publications are a bellwether tool for what area of interest academic faculty, institutions, and researchers focused upon at a given instance in time (McGuigan, 2008). Such knowledge of what was important to institutions essentially guided the admissions policies of the time and can be used to evaluate institutional diversity and inclusion. Figure 1 identifies the various descriptions and some KTP that inform the research.



**Figure 1**

**Informing the Theoretical Framework**



**Review of the Literature**

***Background and Demographics***

For students from marginalized populations, the outcome of the question why students succeed in college has been beneficial in the replication of circumstance and character for those preparing to position themselves as college admissions eligible (Flores-Gonzales, 2003). However while the research has been beneficial in yielding practical, and some in-practical recommendations, the field has previously investigated populations that have been changing in character and demographic. This change has at times occurred through community organizing as a

way to create systematic change. The study of these historical patterns of activism is important in a contemporary context because racial inequities continue to exist, and educational policies still fail to meaningfully attend to issues of race (Gillborn, 2005). Privileged, White males who sought higher education as a source of social, upward mobility defined early populations of college going students. The Servicemen's Readjustment Act of 1944 (the GI Bill) and returning post-war veterans changed the canvas of college going populations and cleared the way for a larger population of non-traditional college students. This large influx of inexperienced, “older” college students impacted public and private colleges not only in regard to facilities, but they also created the need for colleges to adapt their emphasis from a meritocracy to a pathway to upward mobility through occupational and technical education (Greenberg, 2004). Moreover, Chicano<sup>2</sup> veterans who newly returned from their war experience had returned with expectations to be beneficiaries of programs that “‘guaranteed’ educational, housing, and medical benefits” (Atwood & Caudle, 2019, p. 9) but were often denied such earned benefits. Legal battles lost like in *San Antonio ISD v. Rodriguez* gave way to a rise in activism from groups like the American GI Forum<sup>3</sup>, MALDEF<sup>4</sup> and others. The outcome was that Chicanos “rejected the slow pace of change and more conventional tactics” (p.11) and gave rise to the Chicano movement of the late ‘60s that saw the rise of Chicano Veterans in higher education.

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<sup>2</sup> Chicano is a self-labeled ethnic identity for Mexican-Americans, which connotes a sense of understanding of the oppression of marginalized people and of a need for social and political action.

<sup>3</sup> This organization was created in 1948 to address the rights of Mexican-American veterans returning from service.

<sup>4</sup> Mexican American Legal Defense and Education Fund (MALDEF) was founded in 1968, is a national nonprofit organization born out of the civil rights movement. Its mission is to protect and promote the civil rights of the Hispanic population in the United States and to empower the Hispanic community to fully participate in American society (Mexican American Legal Defense and Education Fund, n.d.).

First generation students in college, those whose parent do not have a college degree, face particular challenges when compared to their non-first generation counterparts (Choy, 2001; Jack, 2019; Pascarella, et al., 1996; Pryor, Hurtado, Saenz, Santos, & Korn, 2007). Researchers that seek to understand the experiences of this demographic have emphasized changes in the locus of their studies. Early researcher like Ernest T. Pascarella and Patrick T. Terenzini (the University of Iowa and Pennsylvania State University, respectively) have focused on how college changes the college student by forces of socialization, levels of engagement with the university and other factors of institutional sensitization. Each of the last four decades of studying Latino/a first generation students has shifted the focus from cultural dispositions towards academics, to pre-collegiate preparation for college work, and institutional programs that aim towards inculcating the college mindset in these students, among other areas of concentration.

The current review sought to identify themes that are indicative of focus areas of research in studying Latino/a first generation students in college as published across the last four decades of research journals. Pilot investigations on the topic yielded articles in general education publications like the *Negro Education*, the *Journal of Child Development*, and from government publications like the National Center for Educational Statistics. These early studies' approach was to identify components of acculturation to the American lifestyle and socialization patterns that aided in navigating through the academic system. Some studies indicated that children of immigrant families found more academic success due to placing a higher value on education (Fuligni, 1997). Andrew J. Fuligni's research shed light on the impact of parental expectation and experiences with college as indicators of their children's college success. However, these types of early studies included for the most part data collection that included mostly White

students; and the immigrant, minority population centered on Asian and European immigrant students (Fuligni, 1997). Albeit, he did distinguish his population to differ in various areas when the distinction was made for students of Latino/a backgrounds; for this population he found negative correlations when it came to pre-collegiate preparation. Fuligni reported that parents of Latino/a students had a limited understanding of the college going process and their view that institutions were barriers from academic supports harmed their successes. Moreover, for “late immigrants” –students in the United States for twelve years or longer- their coping mechanisms differed when compared to their newer counterparts. These first generation students addressed their situations with direct actions using little input whereas second and third-generation students discussed their options with others before action was taken (Gloria & Castellanos, 2012).

Early investigation sought to identify the character and disposition of Latino/a first generation students in college and centered on statistical data of their numbers. The first-generation-in-college going population is distinguishable in type, form, experience, and resilience from the general population (Fry & Lopez, 2013; Gandara, 2011; Kiyama & Harper, 2018; Pascarella & Terenzini, 1991). The evidence on the experience of first generation students has permeated into policy decision-making at universities in regards to this sector of higher education. A first-generation student is characterized as a college student who’s neither parent has attended college (Chen, 2005; Nuñez & Cuccaro-Alemin, 1998). Factors related to academic preparation in high school, understanding of the college application process, a lack of tangible financial resources, minimal participation & success in high school mathematics program, parental experience (having completed some level of collegiate work), and understanding of the college experience are fundamental limitations to enrollment & persistence patterns for first-generation college students (Fuligni, 1997; Pryor et al., 2007).

For a typical high school student, issues of preparation in pre-requisite skills for success in college may be perceived as a question of equity in access. On average, nearly twenty-five percent of a high school's graduating class will be of first-generational status, but of this same demographic only 58% of them will persevere to obtain their baccalaureate degree (Warburton, Bugarin & Nunez, 2001). The literature on Latino/a first-generation students in college indicates that a high correlation can be made from three main clusters of pre-collegiate preparation: 1.) High school mathematic program participation and success, 2.) In-college persistence and 3.) Parental characteristics and their knowledge of the college process. These conditions elevate the level of success of Latino/a first-generation students attaining their first post-secondary degree in contrast to the confusion and misinformation about what is needed to success in obtaining a baccalaureate degree. Often parents of minority students have high educational, professional, and moral aspirations for their children, but may not know how to help their children attain them (Cooper, Jackson, Azmitia, Lopez, and Dunbar, 1995; Gandara & Contreras, 2009).

The literature has identified the positive and negative role of home and parent connections. While they have provided emotional support to persistence, home and parental factors have also been a detriment to academic achievement (Atwood & Caudle, 2019). As there has been an economic downturn in the generally economy, the literature has also identified an increasing demand for family attention and responsibilities that detract from full attention to academic programs and studies (Auerbach, 2002; Cooper et al., 1998; Hurtado and Carter, 1997). In addition to having lower GPAs, first-generation students were more likely than other students to withdraw or repeat courses they attempted” (Horn & Nuñez, 2000; Zerquera, 2019).

Latino/a first-Generation students enrolling in collegiate studies are quite identifiable from their non first-generational counterparts. First generation students tend not to enroll in

college after high school graduation; even when they were qualified for enrollment if they had applied (Choy, 2001; Tym, McMillan, Barone, and Webster, 2004). One factor of note is that “family educational background of college students is associated with the choice of postsecondary institution and with postsecondary achievement” (Gonzalez, 2011, pp.107). Indeed, only one in five parents of Hispanic students have a Bachelor’s degree. Thus, college guidance that may have come from the home environment is lacking for a significant portion of college students. A lapse in continuous school enrollment can be attributed to a lack of information regarding the process of college admission and financial aid opportunities. Moreover, these *enrollment spells*, stops in continuous attendance, were indicated to increase the time to degree completion (Warburton et al., 2001; Nuñez & Cucarro-Alemin, 1998). Consequently, while the traditional college going age is 18-21 years old, first-generation college students tend to be older in age; 31 percent compared to 13 percent were older than 24 years old (Choy, 2001).

The literature indicates that for students of marginalized groups, like Latino/a first-generation students, the family plays an important and pivotal role in college persistence (Hurtado and Carter, 1997); however, this role has a negative correlation to degree attainment. First-generation college students tend to come from poorer families and their study skills tend to be more limited with a result of lower academic grades and college preparation (Gonzalez, 2011). While the single data point of economic designation does not infer an inability for First-Generational students to meet success in collegiate studies, the data suggests that low socio-economic status limits these students in the basic resources needed for their education. This distinction brings along with it an inherent limitation to resources (social, economic, and educational) that may otherwise have a positive impact on educational success (Jack, 2019;

Pascarella et al., 1996) and as such places this demographic at an eight-percentage point less probability of them completing a bachelor's degree (Gonzales, 2011). Moreover, directions and exposure from the parents about basic educational requirements to complete high school and how to apply for college compromise the home setting for first-generational student; wherein, "over 35% of Hispanic householders do not have a high school diploma" (Gonzalez, 2011, p. 97). Their *home networks of relationships* are important considerations as they formulate their aspirations in occupation, family lifestyle, and social/ cultural identity (Cooper et al., 1995). While at the same time, these strong home connections were detriments to their full integration to the college experience and thus limiting their academic success. Maintaining connections to their home networks has a limiting effect, as it requires a time commitment on behalf of the student. This misdirects available resources that would have been better used to focus in on school responsibilities. First-generation students were more than 2:1 likely to attend college on a part-time basis, and were more likely to "live off-campus or with family and relatives", 84 percent to 60 percent (Nuñez & Cuccaro-Alemin, 1998; Pascarella et al., 2005).

While the ideals of college degree attainment continues to be emphasized in K-12 grade classrooms, the value of a baccalaureate degree is of special consideration for first-generation students. These students tend to choose a college to attend based on "the availability of financial aid, the opportunity to finish coursework more quickly, and being able to live at home while attending school, and being able to work at the school" (Nunez & Cuccaro-Alamin, 1998, p. 55). The previously established clear direction on the benefits from completing a baccalaureate degree today is now measured with the time and cost of repaying student loans to costly universities.

Many Latino/a first-generation students deliberate with legitimate arguments for alternate pathways to attaining their degree. Chen (2010) reveals that high school seniors and their parents both indicate that the cost of attendance and the availability of financial aid are key determinants in their decision making process of attending a 4-year versus a 2-year university; or even any college at all. He identifies disparities in the type of majors to which first generation students gravitate and on-time completion patterns. First generation students enroll in less demanding courses, do not complete general education requirements on pace with the non- first generation peers, and are more apt to withdraw from their studies in greater numbers.

Additionally, Turley (2009) indicates that there are many factors that contribute to socioeconomically, disadvantaged students' deliberations on applying to college. One such factor is the location in which the student resides and writes, "there is evidence that college proximity functions through a convenience mechanism; that is, colleges in proximity seem to increase the odds of applying to college because they make the transition to college logistically, financially, and emotionally easier." This report highlights the need for continued intervention on the part of universities to support first generation students through their collegiate experience.

Moreover, many indicate that the reasons for not seeking to attend college are needing to take care of their families, and some say that "they would rather work and make money than go to school" (Taylor, Parker, Fry, Cohn, Wang, Velasco, and Dockterman, 2011). First generation students who worked while enrolled in college perceived themselves more as workers who were taking college courses than students who held a job (Choy, 2001); the difference is striking when one addresses the mindset of collegiate success. Moreover dependent on the level of high school success, how these students will pay for college has limiting effects on the type of college selected and the time to completion of the first post-secondary degree. Students who attend a



four-year college or university attain their degrees in a differential form related to time-to-degree, cost of degree, and overall college experience than those who attend a two-year community college (Freeman, 2017; Mangan, 2015). However, with time to completion of the first degree eliminated from the equation, many Latino/a first generation students are making deliberate plans to find non-traditional and circum-directional paths to degree attainment. This newer pattern on Latino/a first-generation students' college experience must be measured in when data analysis is considered on the completion patterns at universities throughout the nation.

### ***Socio/background factors***

Having the mindset for college is especially important for Latino/a first-generation students. Too often these students are inhibited from college enrollment due to a poor self-concept and low aspirations (Choy, 2001; USDE-NCES, 2000) or few educational agents to aid their preparation. For successful first-generation students the key was that they had established a mindset of a collegiate scholar prior to their college matriculation (USDE-NCES, 2000). These Latino/a first-generation students believed that college success was an option for them and were willing to enter the process. In terms of where these first-generation students came from, they were more likely to attend suburban schools versus metropolitan areas (USDE-NCES, 2000). In contrast, current trends in Hispanic populations concentrations point to the de-localization of Hispanic students clusters in traditional metro areas and towards more rural and suburbanized areas of educational attendance (Fry, 2011). This change in home-school attendance has developed a condition wherein suburban schools are unprepared to teach larger concentrations of Hispanic students and as a consequence, these new student's academic preparations is hindered. Little empirical research has been done on the extent to which these new areas of settlement are lacking. A definite discrepancy in educational conditions between White students, who tend not

to be first-generational college students -33% (Gonzalez, 2011), versus Hispanic students, who do tend to be first-generational college students -65% (Gonzalez, 2011), is noted by one author's position that opportunity and college preparation is differentiated when they stated that "Case studies of the education of Latino/a children in new settlement areas have uncovered great challenges and indicate that schools have had difficulties incorporating their new students and developing the resources and curriculum to educate these new populations" (Fry, 2011, pp. 16). Whereas previously a greater number of first-generation Hispanic college students have emerged from suburban areas over metropolitan areas, recent trends in population shifts will necessitate the study of how these changes will change the landscape of college attendance for all ethnicities of first year students. While the demographic shift identifies location and proximity to social/educational centers, this geographic shift does not change the data, which reflects that first generational students tend to come from families in the lowest income quartile (Choy, 2001). These students also tend to be younger in age (less than 24 years old) and effectively, still dependent on their parents for financial support. First generational students, for various factors discussed throughout this review, tend to lower their collegiate aspirations and enroll at a 2-year university versus a 4-year university, 56.1% versus 29.9% (Choy, 2001, Table 5).

### ***Pre-Collegiate Characteristics***

The literature is clear in regards to pre-collegiate experiences that aid, or hinder, degree attainment. Notably that, degree completion is mediated by the level of academic intensity during high school (Chen, 2005, Mayhew, Rockenback, Bowman, Seifert, Wolniak, Pascarella, & Terenzini, 2016), and the graduate's class rank; there is a marked difference in the habits and experiences of first-generation college students and their non-first generation counterparts (Fry

& Lopez, 2013; Gandara, 2011). Indeed, the exposure of Hispanic students to others who have completed, to some extent, a college education has a direct correlation of their attaining a college education by way of their initial enrollment and completion patterns.

This college going population is distinguishable in type, form, experience and resilience from the general population, and the evidence suggests that high school dropout rates and low post-secondary training evident in the work force is still of great concern (USDE-NCES, 2005). Factors related to academic preparation in high school, understanding of the college application process, a lack of tangible financial resources, minimal participation and success in high school mathematics program, and parental experience (having completed some level of collegiate work), and understanding of the college experience are fundamental limitations to enrollment and persistence patterns for first-generation college students.

High school students are not prepared for the demands of collegiate study. Under preparation in regards to English and Mathematics is a key area of deficit (Bettencourt, Manly, Kimball, and Wells, 2020; Gonzalez, 2011). With 25% of an entering college class identifies as first generational, this compounds the problem of college success and leads to only 58% of those students persevering to degree completion (Warburton et al., 2001). This coincides with research that identifies three key areas of pre-collegiate identifiers that correlate to degree attainment. The first is the student's mathematics course taking while in high school; taking multiple higher-level math courses correlated with degree success. In addition, when a student was better prepared in high school (higher GPA, advanced courses, etc.), their in-college persistence to degree attainment was enhanced. Finally, there is a positive correlation when it comes to parental knowledge of the college going process (Pryor et al., 2007). Due in fact that parents of first generation students were unaware of the college process, it translated to a source of

uncertainly, stress and added time to degree attainment (Cabrera & La Nasa, 2000; Warburton et al., 2001). These conditions mitigated the level of success of first-generation students attaining their first post-secondary degree similar to the confusion and misinformation about what is needed to success in obtaining a baccalaureate degree (Fry & Lopez, 2013). Often parents of minority students have high educational, professional, and moral aspirations for their children, but may not know how to help their children attain them (Cabrera & La Nasa, 2000; Cooper et al., 1995).

### ***Early Outreach Programs***

Because first-generation students cannot benefit from their parent's experiences in preparing for and applying to college, they may be at a distinct disadvantage in gaining access to post-secondary education (Chen, 2005). Students who are unfamiliar with new areas of education and new experiences are in a greater disadvantage of not connecting with the university and becoming fully integrated (Cooper et al., 1995). The tenets of two early outreach programs, AVID and GEAR UP, are to address the task of acclimating students to the process and experiences evolved with a college-going experience (Watt et al., 2007). It is acknowledged that exposure and academic preparation is, "one of the most potent predictors of educational performance and enrollment in college (Perna, 2000, as cited in Watt et al., 2007). Many of these remediation programs seek to bridge the divide between home and school. These programs ameliorate deficiencies is student's academic understanding due to limitations in their home resources. Consequently, these, "[Academic outreach] programs appeared to foster continuity for adolescents between family life and school" (Cooper et al., 1995). Academic preparation programs, like AVID and GEAR UP, seek not only to support content and skill deficiencies, but

also seek to support “issues of adjustment to college, including their racial and ethnic identity development, connection to the college environment, and feelings of alienation” (Cooper et al., 1995). Although, a lack of academic preparation has been the catalyst for outreach programs to evolve, their primary mission is to develop individual resilience to challenging coursework instead of moderating deficiencies remediation (Cooper et al., 1995).

### ***Mathematics Course Taking***

The research indicates that Latino/a first-generation students were less prepared in their mathematics course taking than their non-first-generation counterparts. Early information on the viability of college is important for students to begin to prepare for college. In one study, Perna (2004) found that students as early as 9th grade, versus 11th and 12th graders, could benefit more from an early exposure to the requirements of college acceptance so that they can begin to prepare for the cost of college attendance and carrying heavier course loads. In another study, Chen et al. (2006) summarized current research that as early as 7th grade students begin to form an intent to go to college and when paired with parental, teacher, peer and community support, the student begins to cultivate a selections process that includes acceptance requirements, pre-collegiate course-loads, program availability at differing colleges, and also how to finance attendance.

Typically, schools concentrate their informational efforts towards 11th and 12th grade students and leave to lower grades at a loss; primarily they are not informed of the dire importance of mathematics course loads and achievement in such courses. As a consequence, many low-income Latino/as, who comprise a high proportion of first-generational college students, tend to choose a high school mathematics pathway that leaves them under-prepared and

unqualified for college admissions (Bozick & Ingels, 2008; Cabrera et al., 2006). These students take mathematics courses that are minimally challenging and often they take the same course more than once; mostly due to course failure or scheduling errors.

Choy (2001) found that first-generational students enrolled at a 4-year university are at a dismally low rate (4% of a 1992 high school graduating class) yet, when this demographic of students took higher level math courses, especially Algebra 1 in 8th grade, they increased their enrollment by 60 points (64% of a 1992 high school graduating class). The data and literature is definitive, math course completion early in high school is correlated to higher collegiate success (Bozick & Ingels, 2008; Choy, 2001; Pascarella et al., 1996). In a study of a 1992 graduating class, the researcher identified a that high school students who took higher level math courses enrolled in college more that those students who only took basic courses (Choy, 2001). There was a 70% point difference in college enrollment to a 4-year university from students who have completed higher level math course in high school (courses such as algebra 2, pre-calculus, trigonometry, probability, statistics, or calculus) to those that struggled with their math courses (“general mathematics”, pre-Algebra, or Algebra 1), 76% enrollment versus 6% enrollment. First generational students take less higher-level math classes and do worse in collegiate, math-course enrollment than their non-first generational counterparts, 64% to 85% respectively (Choy, 2001). Choy duplicates the finding that, “the highest level of mathematics that students took had the strongest continuing influence on their completing a bachelor’s degree (Idem, pg. 15). Another study focused on the relationship between high school, mathematics course-taking to the completion of a baccalaureate course of study; the extent to which students took higher-level mathematics courses had a direct correlation to first-degree completion rates. The research also

indicates that first-generation students were less prepared in their mathematics course taking than non-first-generation students (Bozick & Ingels, 2008).

The literature indicates that the more math courses taken then the more prepared a student is for college level work. In an analysis of entering first-generation students, only 14% of them took Algebra 1 in the eight-grade when compared to 34% of non-first-generation students (USDE-NCES, 2005). Moreover, even when one controls for factors of academic achievement and socio-economic disposition, first-generation students are at a higher probability to not benefit from participation in mathematics courses and post-secondary planning that eventually lead to the college application and enrollment. This characteristic especially applies to the twenty-three percent of Hispanic student who do drop out of high school programs (USDE-NCES, 2005). In one review, students who took higher-level mathematics courses, above Algebra II, enrolled in university studies at a rate of nearly 5:1 versus students who only took courses up to Algebra II (Choy, 2001). This single item has profound implications for the success rate of all students, but most especially for Latino/a first-generation students. There is a recidivist tendency of students enrolled in Algebra I courses. Simply one failure of an Algebra course in high school may prevent their opportunity to take higher-level courses, and thus be less likely to enroll in college (Choy, 2001).

### ***Pre-1990's Focus***

In the previous three decades, from 1980 to 2010, the Latino population has increased from 14.6 to 50.5 million persons in the United States of America; this is the largest growing demographic and most increases are centered in the Southwest United States. This growth in numbers has critical impact for the American culture as exemplified by the growth of Spanish

language offerings in television and social media networks; Univision media network regularly ranks as number 1 or 2 for 18- to 34- year olds (Gándara, 2015).

Latino underachievement is a focus area that includes period specific explanations for their lack of success. These rationalizations include “cultural deprivation” (see Hess & Shipman, 1965), genetic inferiority (see Herrnstein, 1973), parents not valuing education (see DeCastro-Ambrosetti and Cho, 2005), and that poverty stresses families and negatively affects parenting (see Jung et al, 2012). Cultural deprivation theory placed the blame on the child’s environment for not having the necessary social, cultural, or economic virtues with which to be successful. For an academic setting, this translates to student’s lack of success due to them not being “smart” enough to learn the material taught in regular classrooms. Genetic inferiority theory argued that academic underachievement was correlated to intelligence; which was consequently and inherited trait. As seen from the academic institution level, some students from backgrounds of poverty, as with many migrant Latinos, were relegated to lower “educable” populations due in part that their poverty was and inherited deficiency. This theory as seen from the academic practitioner meant that many Latinos were identified with lower IQs and thus taught alternate standards and subsequently were ill-prepared for continuing education (Lucas, 1999; Nevárez-La Torre, 2012; Ohrt, Lambie & Ieva, 2009).

Gándara (2015) identifies that the most common indicator of a lack of Latino success is that they do not have the language necessary to achieve; albeit that many Latino students have a control of English prior to school enrollment. For these students, a lack of access to native English speakers (as vocal models) and limited engagement opportunities in English language development has negative consequences on their achievement. Moreover, this lack of success



yields student who self-label as low-achievers and thus exit the academic stream (Flores-Gonzales, 2003)

Intervention and remediation programs have little effect of realigning this lack of collegiate access in that high school programs offer late-engagement in remediating these student's deficiencies and the results are students who enroll in community colleges with extended timelines to degree completion; and most often dropout (Freeman, 2017; Mangan 2015).

Early studies on Latino/a first generation students in college took into account key characteristics that enhanced or detracted from collegiate success. One such study, Pascarella et al. (1996), noted there were 14 of 37 pre-collegiate characteristics that differed among this population and their non-first generation counterparts. The largest difference came in regards to family income and being Hispanic. Added to these two elements, Latino/a first generation students in college tended to have lower cognitive skills, have lower career aspirations, have less family support to attend college, spent less time interacting with teachers while they were in high school, and were more often women. These characteristics laid the foundation for researchers who identified distinguishable variable that impeded academic success as students entered the college environment (Byrd & MacDonald, 2005; Fuligni, 1997; Otero, 2007; Pascarella et al, 1996, Pike and Kuh, 2005).

The literature indicates that for students of marginalized groups, like Latino/a first-generation students, the family plays an important and pivotal role in college persistence; however, this role has a negative correlation to degree attainment when dealing with this demographic. Latino first-generation college students tend to come from poorer families and their study skills tend to be more limited with a result of lower academic grades and college

preparation (Bettencourt et al., 2020; Gonzalez, 2011; Schudde, 2019; Sosa, 2002). While the single data point of economic designation does not infer an inability for Latino/a first generational students to meet success in collegiate studies, the data suggests that low S.E.S. limits these students in the basic resources needed for their education. This distinction brings along with it an inherent limitation to resources (social, economic, and educational) that may otherwise have a positive impact on educational success (Pascarella, et al., 1996).

### ***First Year Experience***

Once Latino/as first-generation students make it to college, the challenge of being academically successful is not over. Many of these students are more apt to be exposed circumstances like distractions from their studies, micro aggressions, and stereotypes that are detrimental to their overall achievement (Mendez & Bauman, 2018). Many of these actions stem from a lack of experience managing higher level academic settings and requirements, practice with balancing social and academic responsibilities; and a lack of “academic capital” (Bourdieu, 1973) which thus instills in them what is “highly regarded” in terms of degree completion. The literature indicates that first-generation students are less prepared for college-level work and thus gravitate to enrolling in courses they deem as more manageable and complimentary to their skills set; at the same time these courses are not in direct line with completion of major requirements and thus extend the time to said degree completion. Latino/a first-generation students take courses through a less formalized and cogent process. They tend to enroll in courses dependent on peer recommendations and the general sense of an instructor’s book reading list. First generation students also took fewer courses that qualified for their area of concentration and thus progressed more slowly through their program (Pascarella & Terenzini, 2005). These students

took fewer humanities & arts courses, studied less, and worked more hours (Bettencourt et al., 2020; Chen, 2005; Pascarella & Terenzini, 2005). A university's mission on inclusion and a representative students body is correlated to first generation students fitting in and consequently in degree completion (Nora, 2004). Another element to degree completion is a student's interaction with their professors. Due to an overall lower sense of belonging on the campus and due to their feeling that their professors have no concern for their development, first-generation students do not develop positive relationships with their professors (Gloria & Castellanos, 2012; Pike & Kuh, 2005) and this is detrimental to academic success.

Many Latino/a first generation students come from strong family ties and, although it can be a source of support, often it is a source of added responsibilities and stress. New research reveals that these students extend, or replace their "home" family structure with an institutional surrogate that "are often comprised of student peers, faculty, and university staff, [and] central to Latina/o students sense of self-efficacy and ability to succeed" (Gloria & Castellanos, 2012; Santos & Reigadas, 2002). Finally, as one would gather from a feeling of un-supportive academic environment, first-generation students are less satisfied with the campus environment (Gloria & Castellanos, 2012; Terenzini et al., 1996). Overall, first-generation students had less first year credit completion than their non first-generation counterparts (Chen, 2005; Pascarella & Terenzini, 2005).

### ***Integration into the College Experience***

Freshman college students are exploring new worlds with unknown avenues relating to "family, peers, schools, and communities; as they seek academic, careers, and personal goals, barriers may divert or stop them" (Cooper et al., 1995). For many Latino/a first-generation

students, the habits and connections in their freshman year are indicative of achievement patterns throughout their undergraduate experience. First-generation students tend to be closed-off and private individuals. They perceive circumstances of under-preparation as personal faults and subsequently keep their struggles to themselves (Sosa, 2002). Many Latino/a first-generation students do not seek out academic assistance to remediate their work. These students do not attend faculty office hours nor attend college established support services; like writing centers. Even basic skills like attending class and using course materials were deemed to be tacit intelligence that many college students lacked and needed to be taught explicitly (Byrd & MacDonald, 2005).

For first year college student, their level of integration to the collegiate experience and self-regulating habits has direct impact for their first-year achievement (Byrd & MacDonald, 2005). For Latino/a first-generation students this is manifested by their practices in maintaining home networks rather than establishing new ones. When these students maintained their social networks from their home environment there is a push-pull effect of responsibilities, practices, values, and understandings (Gloria & Castellanos, 2012). First-generation students had significantly more family responsibilities (Mangan, 2019; Pascarella & Terenzini, 2005) that drew their academic resources (time, effort, collaboration, etc.) away from their studies. Student that experience a limited integration to college environment are at a greater probability of eventual withdrawal.

When Latino/a first-generation students create new networks around the college or student-life, they are more apt to progress through college with more success and on-time degree attainment. The transition to college phenomena is a psychological adjustment process that touches on factors such as coping, self-efficacy, attachment, and motivation (Easely, Bianco &

Leech, 2012; Prospero, Catherine Russel & Vohra-Gupta, 2012). This social aspect requires new entrants to college to find their way in the process. As a function to survive in college, these students must consider their position in a social environment, and some harness their energies in the form of an internal motivation to honor their ancestors (Easley et al., 2012). First generation students who created new social networks with university agents were felt more validated in their experiences that translate to academic success (Gloria & Castellanos, 2012). When these students established supportive networks that fostered their sense of self, and it increased their resilience. Students with an optimistic outlook, high self-esteem, and a proactive orientation toward seeking social support find the adjustment to college to be a smoother process (Easley et al., 2012).

### ***Private vs. Public University Enrollment***

To truly capture the experiences of Latino/a first generations students in college, one must include an analysis that includes the type of institution that these students elect to attend. Using data from the 1989–90 Beginning Postsecondary Longitudinal Study (BPS:90/94), Nuñez and Cuccaro-Alemin (1998) identified that first generation students had overall less success across all parameters they measured. These students tended to have higher enrollment at community colleges versus private, not for profit, universities (51% vs 8%). They had less degree attainment after five years of enrollment versus their non-first generation counterparts (44.2% vs 55.5%). Also, Latino/a first generation students tended to pertain to the lowest of income group, and they dealt with another level of consideration when the decision of college to attend arose. These students had an added concern that attendance at elite, private institutions also needed to include the availability of more financial aid (Paulsen and St. John, 2002).

Attendance considerations at elite, private institutions is augmented by several factors, both internal and external to the students, and has dire implications for their academic trajectory. The decision to enroll at an elite, private university versus public institutions is a system of calculated risks and avoidance (Alvez, 2006). Students who have managed to be successful in their k-12 schooling have done so by emulating behaviors of success. Often these habits are governed by avoiding the unknown and risky outcome of seeking admission at distant campuses. Even when these students do venture outward, they mitigate their course loads, exposures, memberships, and extra-curricular activities with attention to personal and academic conservation. These students “Like so many other working-class, public-school-educated, scholarship kids in higher education, I lived in fear of being unmasked” (Alves, 2006). For the largest percent of students who are first in their families to go to college, their exposure to a college environment is limited to a community 2-year, public institution where their success is juxtaposed to their family and peers who also chose to stay close to home (Cohen & Brawer, 2003).

The type of college elected to attend has a great impact on the level of success for Latino/a first generation students in college. While a great percent of these students are limited to community college attendance due to family concerns, financial consideration and a lack of knowledge on applying to more prestigious and selective institutions, the evidence is clear on the benefits of attendance at elite, private colleges. Degree completion is measurably higher within five years for first generation students (Balz & Esten, 1998). Moreover when looking at income levels, students who came from families below a yearly income of \$24,000 did measurably better at completing their program within 5 years compared to their similar cohorts who elected to attend community colleges (Balz & Esten, 1998). For Latino/a first generation students, attendance at elite, private colleges and universities brings opportunities for greater success.

However for most from this demographic, they encounter other factors that make them not consider attendance at these institutions an option.

## **Socio-Cultural Patterns**

### ***Enrollment/Retention Issues***

Latino/a first generation students have encountered a push and pull effect of education. The literature indicates that students from marginalized categories experience an effect of *effort optimism* wherein, students feel the support of their families to persist in education while they concomitantly consider whether educational success will yield rewards (Ogbu, 1990). Students and their parents may come to doubt that schooling, particularly higher education, is accessible or even beneficial (Cooper et al., 1995). This doubt in the benefit and/ or validity of higher education can be manifested in first-generation students deciding not to enroll after high school (Choy, 2001; Tym, 2004). In another study, Rendón (1992) found a high correlation of Hispanics enrolled in community colleges along the southwest border regions of the United States. While the high concentration of this population enrolled at that level is uninteresting, the large amount of students indicating they had a very good academic preparation in high school may be indicative of internal doubts of collegiate potential, or external pressures to remain uncommitted to the full collegiate experience. The author notes “Even academically strong Hispanic students may be enrolling in these institutions, while most of the well-prepared whites may be electing to enroll in four-year colleges and universities” (Nora & Rendón, 1990, p. 34). This study is relevant to the persistent problem of college undermatching, and while not addressed in the current, it is receiving attention from scholars like Clifford Adelman and Awiilda Velasques. This situation, however, has a “silver lining.” One report by Byrd and

MacDonald (2005) indicated that student who waited to enroll into college immediately after high school commented that they, “were not ready for college when they were younger or right out of high school and that being older contributed to their readiness for college.”

### ***Dropout characteristics***

First generation students are faced with many tangible and meta-cognitive obstacles to persisting in a collegiate endeavor to degree completion (Dey & Hurtado, 1995). Many of these first-time scholars are faced with encountering functions and circumstances with which they have little experience. Without previous exposure to practices and conventions of dealing with educational situations, Latino/a first-generation students are forced to adapt to new environments in-transit through educational venues. Bourdieu (1973) identified the process in that “cultural adaptation functions as a prerequisite to skill acquisition.”

Of note is that for an individual that has not accepted, or acquired, processes, habits, and skills that are necessary to navigate through a situation that is unfamiliar to them leads to a sub-par mastery of the skills and techniques within the environment. For first-generational students, it means that they must “adapt” to the mentality and actions of being a college student. These actions take the role of an assortment of collegiate behaviors that will create tangible and intangible academic benefits. These acquiescent actions may take the guise of being prepared for course lectures by having conducted the necessary pre-lesson readings, writings, and/or research on the course subject matter. Moreover, these Latino/a first-generational students need to embrace the “habitus” of being the college students as meeting academic expectations above and beyond, engaging in social growth through collegial affiliations, and/or interacting with faculty members as guides and mentors and not solely as heads of the campus aristocracy.



The literature has identified the positive and negative role of home and parent connections. While they have provided emotional support to persistence, there has also been a trend to be a distraction to academic achievement. As there has been an economic downturn in the generally economy, the literature has also identified an increasing demand for family attention and responsibilities that detract from full attention to academic programs and studies (Cooper et al., 1995). “In addition to having lower GPAs, first-generation students were more likely than other students to withdraw or repeat courses they attempted” (Horn & Nuñez, 2000).

Current high school dropout rates are on the decline from the all-time high in 1972 (Chapman, Laird, & KewalRamani, 2010). While this improvement have seen a reduction from 14.6 to 8.0 percent. If the correlations hold true for dropouts as they do with Latino/a first-generation students (minority status, low income, etc.) that leaves, “approximately 3.0 million 16- through 24-year-olds were not enrolled in high school and had not earned a high school diploma or alternative credential.” Again, this trend of high school dropouts, and correlated collegiate self-exits, leaves the pattern of a large, un-skilled workforce; this population is comprised of dropouts from under-represented, minority groups. The entering collegiate class from any year consists of a portion of students who will have had no prior experience with the world of college. These “new”, Latino/a first-generation students have identifiable differences from their non-first-generational college student counterparts. The former are characterized by being the first in their families to attend college, they have little experience with the roles and requirements of being college students, and they have few mentors and models that are capable of aiding them in maneuvering through this new educational jigsaw. Much of the research indicates that a first generation students is one in which neither of their parents had more than a high school education (Choy, 2000; Nuñez & Cuccaro-Alemin, 1998; Warburton, 2011). One

may argue that a lack of clearly defined paths to the baccalaureate and role models to guide them leaves the majority of these students uncertain of efficient educational goals and processes. In fact, first-generation students make up 34% of the 4-year university entering class and 53% at a two-year community college (Choy, 2001); a lack of preparation for college during high school has funneled many students to impacted local colleges- this characteristic of an inadequate high school preparation

### **Synthesis of the Research Findings**

The early interest in the study of the college going student identified distinctions between the traditional student and the non-traditional student. The latter was identified to generally be older, working full time, female, and non-white (Pascarella & Terenzini, 1991).

The 1960's to the 1980's brought an unprecedented number of Latinos into higher education at a time when the institution was not ready to address this demographic. The mid-60's saw an increase in Latino attendance at college rise 12.8% as "el Movimiento" (the Chicano student movement) gained impetus from a small number of Latino/a faculty. Fall of '67 saw the birth of Mexican American student organizations as resentment grew from a high Latino attrition and a lack of courses relevant to the histories of under-represented students (MacDonald & Garcia, 2003).

Pre-1990 investigations sought to quantify the nature and experience of this demographic. While the population was growing in numbers at campuses across the nation, their stories were being told within the traditional literary vehicles of journals related to adolescent growth and maturity, issues of higher education, and in general-education publications. While most addressed information related to the college process and changes to the population, some touched on specific groups of the time like Negroes and Hispanics. Themes related to this timeframe were

filled with ideological imperatives on equity and access to reform a changing landscape of education. Dropping attendance patterns, increased dropouts, and lower scores on standardized test necessitated the push to understand the college going population. This timeframe encompassed questions of family dynamics (see Howard London, 1989), retention & attrition (see Billson and Terry, 1982), perseverance and self-efficacy (See A. Astin and Mena, Padilla, and Maldonado, 1989), and the role of habitus and Social & Cultural capital (See the works of Pierre Bourdieu).

Research in the 1990's continued the investigation of who made up the college going population, however, due to increased attention on equity and equal access, studies began to center on the connection with the home environment and university (Fuligni, 1997; Pascarella et al., 1996). A notable finding was that a key predictor of access to college and persistence through degree attainment at a four-year college was the parent's educational level (Gandara, 2015; Nunez & Cuccaro-Alemin, 1998). Due to the very nature of students being first in their families to attend college, there was much confusion about the process there was also a mistrust of information coming from institutions. A rapid growth in Latino/as in the '80s and '90s led to Federal interventions in establishing data sets for various funding purposes -ie: census profile for "Hispanic" (MacDonald & Garcia, 2003). The "Decade of the Hispanic" was heralded in as homage to the rapidly increasing numbers of this identifiable group. However, the same time identified inequalities in access to higher education. MacDonald and Garcia (2003) note "the 1980 census revealed that while 20% of Californians were Hispanic, only 2.7% possessed college degrees" (p.35). Also of much concern was the evaluation of current programs and identifying what policies and services were having a positive impact on aiding the first-year student (Cooper et al., 1995; Dey & Hurtado, 1995; Esten, 1998; Pascarella et al., 1996).

The current decades' research on first-generations students focuses on an external examination of the way that college affects the individual; on educational planning, academic skills and personal impetus (Boden, 2011); on educational actors and feeling of guilt when leaving for college (Gloria & Castellanos, 2012); and peer-mentoring and forms of social capital (Moschetti, Plunkett & Yomtov, 2017). However, a handful of studies continue to address the effect of college on the learning of first-generations students (Pike & Kuh, 2005). Moreover, the recognition of the contributions of people of color, regardless of their immigrations status, has opened other discussions of the equal access to higher education. The 2001 DREAM Act (Development, Relief, and Education for Alien Minors) recognized student's rights to educational access when they had been part of the American landscape from very young; this was another consideration of the current decade.

The researcher and findings on the experiences of Latino/a first-generation college students spans the gamut of micro and macro experiences and thus there is a need of a literature review that synthesizes the data, not as a definitive aggregation on the matter, but as a directional tool in addressing the topic.

The last two decades of research on Latino/a first-generation students has focused on four key areas of general characteristics: Demographic identifications in relation to physical local of students who attend college; Pre-Collegiate Characteristics: academic preparation and mathematics course taking; college readiness & interventions that remediate the first-year college experience; and socio-cultural patterns: Enrollment/Retention issues, Drop-out characteristics, and Early Outreach Programs.

## **Critique of Previous Research Methods**

Early researchers on the subject were notably interested on returning veterans who were re-entering the college environment (Greenberg, 2004). This demographic simply sought to gain occupational and technical training as a means to improve their economic position (Greenberg, 2004). Subsequent detailing of this population identified differences according to whether these identifiably different students had the necessary disposition and habits to succeed in an academic setting (Bourdieu, 1973). Thereinafter the research continued to disaggregate this population while the majority of these studies centered on a quantification of data (attendance, attrition, pre-collegiate characteristics, etc.) as a process for identifying explanations of their experiences (Bozick, 2008; Pascarella & Terenzini, 1991; Warburton et al., 2001). As the number of studies expanded on this population, a critique of their methods is that there was that a majority of “traditional quantitative approaches continue[d] to dominate the research (Pascarella & Terenzini, 1991, p 636).

Cabrera & LaNasa (2000) studied the completion patterns of first generation college students and non-first-generation students. In this quantitative methods research, the authors suggest that when one desegregates the data in regards to parent’s educational level there are distinct indicators for students across multiple levels. Cabrera & LaNasa also indicated that there is a negative correlation between pre-collegiate academic preparation and to being a first-generation Student. Subsequently, first generation students are more prone to have their college choices tailored by their support from parents, access to information about colleges and the procedures involved with attending an institution of higher education, and limited by their perceptions on their ability to pay for college. Their study suggested that there is no clear distinction in first generational college students’ status; we must further disaggregate parental

experience and completion in education to fully understand the complexity of student degree attainment.

Perna (2004) focused on the contributive factors that effect the under-representation of women, African Americans, and Hispanics as doctoral and professional degree recipients. Women tend to outnumber men in the likelihood to enroll in a sub-master's level or master's level degree program, but less likely to enroll in doctoral or first-professional degree relative to men. However, due to the limited sample size (n=272), when controlled for expected cost and benefits and financial and academic resources, women were as likely as men to enroll. Similarly, Blacks were tabulated to be as likely as Whites to enroll in sub-masters', masters', and first-professional degree. However, when controlled for expected cost and benefits and financial and academic resources, and cultural and social capital, Blacks were less likely to enroll. The sample size of the current study was more than adequate in both methods used (quantitative n=5,103 and qualitative n=16) to achieve statistical validity of the results.

Pike and Kuh's, 2005, quantitative study discuss whether there are real differences between first and second-generation students. Their research focused on background characteristics of gender, minority status, precollege educational aspirations, and general characteristics of college attendance (living on campus) and their contributive results to the persistence of first and second-generation students. First-generation students were more likely to have lower educational aspirations than second-generation students. They also were more likely to be male and live off campus; thus negatively affecting their levels of integration worth the institution and consequently less persistence. They recommended those institutions that are dedicated to increasing first-generation student persistence to conduct concentrated workshops to parents and students in which characteristics of successful first generations students are

emphasized. Moreover, they recommended a policy that first-generation students must live on campus for at least the first year in attendance.

Chen (2005), a report from the US Department of Education, highlights the course-taking patterns of first generation students. The author highlights some markedly eye-opening results of the second-phase of a first generation student's experience in college. Previous literature is quite clear on the disadvantages of these students in gaining access to college. Chen further identifies disparities in the type of majors to which first generation students gravitate and expands on the patterns of on-time degree completion. First generation students enroll in less demanding courses, do not complete general education requirements on pace with their non-first generation peers, and are more apt to withdraw from their studies in greater numbers. This report highlights the need for continued intervention on the part of universities to support first generation students through their collegiate experience.

While these citations are only representative of the complete literature review, they exemplify the commonality of quantitative methods, and identifying current practices in higher education, and the current study departs from their findings in that all the literature cited in this study based themselves on generating new and applicable knowledge referent to first generation students. A caveat must be made for Tinto's (1975) synthesis of available research relevant to student dropout. The author's development of his Social Integration Model (SIM) was applicable for the population that had attended college in the then recent past, however much of the finding cannot be applicable to a modern student dataset due it be concentrated on traditional aged students, it lacked a student value-laden aspect of higher education, and was applicable only to residential, four-year settings (Metz, 2004). The current research addresses a missing component of synthesizing what is already known through a systematic, temporal review of a

peer-reviewed data set.

### **Summary**

In this chapter, background contexts were related to the experiences of Latino/a first-generation students in college, their descriptive characteristics that set them apart from traditional students, and obstacles that have been identified as personal, familial, or institutional in nature. In-depth detailing of the major themes was provided related to Latino/a first generation college students expressed in a decade-by-decade distinction. This chapter ended with a critique of the past literature and how the need existed for the current study. Chapter 3 provides a thorough explanation of the methodology used for this research study. It includes a rationale for use of a mixed methods approach to this research. Information about the study setting, stakeholders, and sampling techniques were also included. Additionally, an explanation of the data gathered, questions developed, and data analysis is a part of Chapter 3.



## **CHAPTER 3. METHODS**

### **Purpose of the Study**

This chapter describes the methods used to examine what patterns have emerged over the last four decades of research in the study of first-generation Latino/a first generation students in college students. Herein, dual methods processes were identified, which was embraced to fully integrate a numerical analysis of trends with personal connections of topics as related through the lived experiences of students in each of the four decades of study. The study investigated the research conducted on the topic of Latino/a first generation students in college. This demographic has had a growing amount of attention over the last four decades. There is a notion in popular culture that old thing cycle out of popularity to once again emerge at a later date. The study contends this is also true for academic research. It is believed that each decade has its emphasis in what was guiding the research and subsequently publishes in peer reviewed academic journals.

### **Research Question**

The current study sought to synthesize four decades of scholarly publishing in four peer-reviewed journals that describe the experiences of Latino/a first generation students in college. While there has been an increasing amount of research on this topic, most of the research is limited to solely a quantitative review of data sets (Pascarella & Terenzini, 1991). The study sought to only begin with a quantitative analysis of correlated topics related to this demographic, but then integrated these findings with the real-life experiences of students who had their first year in college in each decade.

Thus, this study focused on the following questions:

- Quantitative: Is the number of peer-reviewed articles on Latino/a first generation students significantly different over from the last four decades (2020-2010, 2009-2000, 1999-1990, and pre-1989)?
- Qualitative: What are the salient themes that emerged from Latino/a first generation students who attended college in each of the four decades (2020-2010, 2009-2000, 1999-1990, and pre-1989)?
- Mixed-Methods Question: How do the lived experiences of Latino/a first generation students support or refute the topics studied in each of the identified decades of research (2020-2010, 2009-2000, 1999-1990, and pre-1989)?

### **Research Design**

The research subject matter was a review of trends in publications on the experiences of Latino first generation students in college across a period spanning forty years. It involved a review of the literature published from four, peer-reviewed publications and identified salient trends in the scope and topics related to this demographic. It was believed that a quantification of the publications related to Latino/a students who were first in their families to attend college would validate their experiences with numerical emphasis. It was also predicted that such a synthetic review of this data set would be enhanced by first-hand descriptions of first generation students who were indicative of the events and patterns described in the literature. Thus, the research involved a mixed-methods approach that drew from a diverse process of a quantification of data and first-hand accounts through a semi-structured interview process of

individuals representing the four decades identified in the literature. The first component was a quantitative review of published articles in educational, peer-reviewed publications; from their inaugural issue to their last release in 2020. Four, decade-long timeframes were identified for research gathering; these decade parameters were from the years 2010-2020, 2000 to 2009, 1990 to 1999, and prior to the 1990's. In an insurmountable supply of publications that address educational issues, the selected publications for this study were evaluated through a filter of addressing issues that were of consequence and interest to those who engaged Latino/a students who are first in their families to attend college. The four selected publications were *The Journal of Hispanic Higher Education*, *the Journal of Latinos and Education*, *American Educational Research Journal*, and *Research in Higher Education*.

A triple-phased selections process was used to select the articles used to identify the data. Each of the publications went through a review of each issue and identified articles that dealt with issues related to first generation students in college using a title algorithm search of 32 key words/phrases related to the experiences of first generation students in college. These 32 key words/phrases were identified through the literature review process and addressed issues of particular application to students who are first in their families to attend college. The second phase examined if the KTP were central to the author's research. Mere cursory identification would nullify the importance to the current study and thus such articles were eliminated from the evaluative process. The final phase identified if the article focused on topics of import to the current study; notably higher education, first-generation students, and Latino/as. A database was tabulated of instances where a key word/phrase was used in its content. The completed database that included all tabulation from the four target publications was then analyzed through a quantitative analysis using SPSS Statistical Analysis Software. The intended analysis was to

evaluate what key terms in the study of first generational college students stood out according to a decades review. Thus, descriptive statistics were reported along with measures of central tendency.

The qualitative portion of this research began with semi-structured interviews of four individuals whom were a first generation student within one of the four identified decades of targeted research. This process required the interpretation of individual's responses with the purpose of discerning underlying meanings and patterns of relationships. This portion of the research began with a Narrative Analysis (NA). The semi-structured interview tool was generated from an examination of quantitative data. The analysis of the responses embraced the constant comparative method, in which observations are compared with one another and with the evolving explanatory theory. The responses were coded through an open-coding process that sought to identify patterns in interview generated data. This raw qualitative data was organized into emergent themes that lent support to the interpretive process of identifying meaning from the participant's responses as they pertained to their experiences as first generation students in college.

### **Quantitative Research**

Quantitative research methodology, also called the positivist or experimental, has been viewed historically as having four major elements; Descriptive, Correlational, Causal-Comparative/Quasi-Experimental, and Experimental Research. Quantitative research is usually described as numerically measurable, and therefore objective, deductive, and generalizable in nature (Fossey, Harvey, McDermott, & Davidson, 2002; Ross, 1999). In quantitative research, the experimenter believes that an objective's "real" answer exists and can be proven through a

rigorous testing process (Healy, 2005). Further in the positivist paradigm, the numerical data defines the answer to a research question and generalizations can then be made based on that data that may in turn lead to predictions and new questions to be proven. Quantitative research is often described as deductive in that it deals with attempting to answer questions and testing theories; usually through the manipulation of data (Healey, 2005).

Generally, quantitative research in education is less biased than qualitative research because the researcher takes a look at the data from an outward approach. The quantitative researcher encourages this distance by utilizing a professional and more detached “voice” in writing up experimental details (Creswell, 2003).

An area of concern was that quantitative research in education seeks to reduce complex social and behavioral patterns into measurable data points as a precursor to reaching objective and accurately measurable variables. As an extension, quantitative research designs attempt to tightly control each variable so that experimental results are as accurate and generalizable as possible (Creswell, 2003). Quantitative research in education suffers when real-life situations contain too many causal and relational variables. At the same time, excess control of, and reduction of, testable variables does give rise to the question of whether experiments in physical sciences can ever be achieved, even with rigorous controls (Borg, 1963).

In summary, the quantitative research process was viewed as scientific and objective when often, the positivist perspective is applauded as more valid than other paradigms (Lagemann, 2000). While quantitative research designs have their strengths, it is important to recognize that the quantitative process also has limits. Quantitative research reduces real situations into a quantification of reality through numbers and graphs. Quantitative research always seeks to reach the “truth” through a manipulation of number sets. Strength in the results

gathered through the use of data give credence that there is no question of the results; this is problematic in that no variance in causation is targeted. As a counterpoint, alternative research designs have been developed to allow for a more holistic view of educational settings.

### **Qualitative Research**

An alternative to the data driven nature of quantitative research was addressed through a process that sought to embrace an approach based on verbal or written description, subjectivity, inductive reasoning, and the belief that phenomena cannot be generalized, rather they must be interpreted based on each individual situation (Ross, 1999). Qualitative research is sometimes referred to as interpretive research. As a result, it is also sometimes thought of as the constructivist paradigm because, while the positivist or quantitative paradigm attempts to stand separate from theory in order to adequately prove it, the constructivist, or qualitative, believes that meaning is constructed by people's experiences and theories must be formed accordingly (Spratt, Walker, & Robinson, 2004). Qualitative research attempts to describe and explain phenomena; generally in a social setting. Moreover, qualitative researchers tend to believe that truth, especially in a social context, is relative and open to interpretation (Hoepfl, 1997).

“Qualitative methods, are appropriate when the phenomena under study are complex, are social in nature, and do not lend themselves to quantification” (Liebscher, 1998, p. 669).

There are situations where the experimental conditions usually expected of a valid quantitative study are not possible or convenient, as is often the case of research designs that work involves student learners. Further, there are situations where the questions the researcher wants to ask are more open-ended and less quantifiable (Borg, 1963), as in the case of a study such as this; one that measures personal experiences of students in a college setting. Of course,

problems with validity are more possible in qualitative research designs because “the researcher acts as the ‘human instrument’ of data collection” (Hoepfl, 1997, p. 3), and as a result humans are apt to make mistakes in interpretation as subjectivity replaces objectivity. Further, qualitative designs are often more complex and time-consuming because study and descriptions of actual people in social situations can require consistent observation over an extended period (Hoepfl, 1997).

Despite issues of validity and time constraints, several types of qualitative designs have been developed to answer open-ended social questions in a more naturalistic and realistic setting than the scientific laboratory. The qualitative approach attempts to “understand the lived experience” of study participants (Creswell, 2003, p. 15). This approach recognizes that people experience the same event in different ways and that interpretation of that event varies due to time, life-experiences, and relationships. One person might describe the same event or feeling in two different ways, if other aspects of the situation changed. To the typical qualitative researcher, it is impossible to understand a phenomenon completely unless all aspects of the occurrence are studied simultaneously (Spratt et al., 2004). The researcher must then interpret the responses of participants. In qualitative research, interview questions should allow for subject responses to follow a route of self-direction. Although this type of research is extremely subjective, it can also be very meaningful because results are often demonstrated through the use of direct quotes that the audience of the study might find more compelling than numerical or graphical detail (Anderson, 1999). In the current study, interview quotes were used to demonstrate in a thick descriptive context, the perspectives of students who were first in their families to attend college. Moreover, the use of qualitative research in this study should appeal to a wider audience and therefore be more effective in practice because qualitative researchers

“agree that there is not a single reality; each individual has his or her own reality” (Ross, 1999, p. 2).

The research study’s methodology was a mixture of qualitative and quantitative methodologies that augmented the research results because “weaknesses in one methodology can be compensated for by strengths in another” (Liebscher, 1998, p. 672). Mixed-method research utilizes designs from both the qualitative and quantitative methodology. The qualitative case study portion of this investigation focused on finding meaning and understanding of a bounded system (Merriam, 2009; Merriam & Associates, 2002; Galvez, 2013). The study focused on the variation across four-decades of academic publications in addressing the experience of students who were first in their families to attend college. The study was augmented by first hand recollections of students whose first generational experiences occurred during the identified timeframe.

The qualitative portion of this study followed a primary data collection of Zoom-recorded interviews to ensure an accurate transcription of participant responses to collect rich “thick” descriptive data.

The study provides insights into understanding the experiences of students who were first in their families to attend college. Much of the literature surrounding the experiences of students who attend college and are successful pivots around the model of goodness of fit; wherein student success is correlated to their comfort with the college in which they attend (Pescarella & Terrenzini, 1991). The methodology that was used in the study was a good fit for this type of research due to the type of questions being asked and the phenomena being studied; questions about personal observations and experiences. A qualitative case study is best applicable when



the questions being asked of the participants address “meaning and understanding” of their experiences within the study of a phenomenon (Merriam, 2009, p. 40).

Qualitative research, in summation, approaches research from an interpretive perspective that does not recognize one universal truth. Qualitative research tends to be inductive rather than deductive. Most qualitative designs utilize observation and verbal or written description to create theories. As such, researchers in qualitative designs interpret data subjectively as opposed to objectively. This lack of objectivity can be problematic in terms of validity – however, qualitative research can also be more meaningful in practice because the end results appeal to the practitioner audience. With this noted, some experts (Liebscher, 1998; Creswell, 2003) in educational research have posited that mixing the qualitative with the quantitative methodologies can allow for research studies that are both meaningful and valid.

### **Mixed-Method Research**

Studies (Liebscher, 1998; Spratt et al., 2004) in research methodologies have come to demonstrate that a mixture of qualitative and quantitative methodologies can augment research results because “weaknesses in one methodology can be compensated for by strengths in another” (Liebscher, 1998, p. 672). Mixed-method research utilizes designs from both the qualitative and quantitative methodology. In this mixed-method design, the researcher first utilized a quantitative survey, followed by a qualitative conversational interview. Necessarily, a mixed-method researcher must be very familiar with both qualitative and quantitative research, due to the complexity of such a design (Spratt et al., 2004).

Mixed-methodology research, therefore, can be both valid and meaningful. In order to design such a research study, it is essential that the researcher choose an appropriate approach.

In the case of mixed-methodology there are three prevalent types of mixed-method designs; the integrative, the informative and the transformative (Creswell, 2003; Spratt et al., 2004). In one type of mixed-method design, the researcher integrates quantitative and qualitative approaches holistically and concurrently, in order to get the end data. In another mixed-method design, the researcher uses the quantitative to inform the qualitative, or visa-versa, sequentially (Spratt et al., 2004). Finally, in the transformative design the “researcher uses a theoretical lens as an overarching perspective within a design that contains both quantitative and qualitative data” (Creswell, 2003, p. 16). In the case of the current research, the conceptual framework drives the choice of method. Conceptually, Pescarella and Terrenzini’s (1991) pivotal research on student’s integration into college guided this researcher in focusing on the social context by which students who are first in their families to go to college are affected by the college-going process. As such, the theoretical framework centers on the educational research focus on limiting elements with which students who are first in their families to go to college gain awareness, skills, and a mindset to persevere to college graduation.

This study hypothesizes there has been a shift in interest on the experiences of Latino/a first generation student’s experiences across the last four decades of academic research and publications. As a result, we are likely to learn more through a combination of a systematic review of educational journals (the quantitative tally) and a discussion of first generation student’s experiences (the qualitative interviews), than through either of these two methods alone. As such, the transformative mixed methodology was also chosen because in the transformative study “the major safeguard on validity is to obtain confirmation from as many data sources as possible; this method is referred to as triangulation, whereby various sources of data point in the same direction relative to a given conclusion” (Anderson, 1999, p. 175). The

study should be more valid than either the survey or interviews alone, and the recorded first-generation student's responses add to the accuracy of the results.

The research was guided by a belief that a systematic approach to understanding the variation in attention and description given to the experiences of Latino/a first generation students, as related in academic journals, must be followed in that the data illuminates the nature of the disproportionate access to college. As such, uncovering inequity for Latino/a first generation students in college across four decades in education can lead to socially equitable changes to collegiate academic success for all. Moreover, the research interest and publications from Academia can inform the key issues of the time which sought a corrective action to college access for students who are first in their families to attend college. Both a quantitative survey and the qualitative interview were used in order to allow for greater understanding of the data because the reader is allowed to utilize both linguistic and logical intelligence (Gardner, 1999). "Since thorough description provides an important basis for evaluation and action, the tools of both conventional and constructivist research are potentially useful in support of this purpose" (Jacobson, 1998, p. 127). In other words, when both qualitative and quantitative methods are utilized in tandem, correctly and well, then research becomes useful in action and in practice. As such, the research can be more useful to practitioners and researchers alike, because of its mixed-method approach.

In summary, the mixed-method can strengthen the validity of qualitative data and allow for the creation of meaning in quantitative data. Further, the choice of method was based on a conceptual framework founded in *Pragmatism* and the belief that an approach to problem solving in education should be connected to teacher/learner experiences and input. Most specifically, this conceptual framework is founded on the premise that research demonstrates that

different perspectives and attitudes exist between those who were first in their families to attend college versus those who have had the input and directions of family members who have experienced the college process. As such, the transformative mixed-method research design was chosen for this study on research publications of Latino/a first generation students in college.

### **Target Population and Sample**

The qualitative portion of the study was developed as a bounded case study and used purposeful sampling to enroll participants. The strength in this process is that “a case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident” (Merriam, 2009, p. 40). Moreover, purposeful sampling allows the researcher to select participants that meet specific criteria with the intention to generate an in depth explanation of the research question (Kratwohl, 2004).

The participants were chosen to fit the need of four criterion: be of Latino/a descent, have been the first in their immediate family to have attended college, have attended one of four types of institution (public, private, community college, HBCU\*/HSI\*), have attended college during one of the four decades in question.

The participant gathering for the research began during the worldwide pandemic of coronavirus 2 (SARS-CoV-2) and as such governmentally mandated social gathering restrictions impaired traditional methods of recruiting (flyers in public spaces, informational meetings, etc.) and also restricted the way qualitative data is gathered; in person recorded interviews. Thus recruiting for the study enlisted a virtual process of emails, social media postings, and Zoom\* virtual interviews.

The qualitative research entailed participants relating their experiences of when they were in college and correlating these lived-experiences to the quantitative findings as delineated by decade. Thus, the sample size was satisfied when a mild redundancy was reached. Merriam (2009) indicates that one reaches this point of saturation when one has “an adequate number of participants...to answer the question posed at the beginning of the study” (p. 80). The study’s n=16; the number to have one participant from each of the four decades and that attended one of each type of educational institution (public, private, community college and HBCU/HSI).

### **Population**

Forty years of academic publishing was analyzed in four peer-reviewed academic journals on issues pertinent to Latino/as who were first in their families to attend college. The results of this review sought to determine salient themes with which this demographic engaged during their studies. To corroborate these findings, a sample of subjects was engaged to weigh in on their lived experiences<sup>5</sup>. To be representative of the dataset that was references through journal publications, this sample of participants needed to have met a few key conditions.

1. They must have been of Latino/a heritage.
2. They must have had parents who did not complete college.
3. They must have attended one on the four types of collegiate institutions studied in this research; a public, private, or community college/university, or have attended an HBCU/HSI (see Footnote 1).

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<sup>5</sup> Lived experiences give value to research in that it “ focuses on the deep, lived meanings that events have for individuals, assuming that these meanings guide actions and interactions ” (Marshall & Rossman, 2016, p. 153, as cited in Merriam, 2015, p. 113).

4. Their freshman year in college must have been within one of this study's four identified decades of research, 2010-2020, 2000 to 2009, 1990 to 1999, and prior to the 1990's.

The sample pool was believed to be representative of the population that would have been available at the original time of journal research. Due to the span of forty years, this pool covers a wide range of demographic descriptions: type of college attended, level of degree attainment, employment descriptions and length of tenure, geographic residence, etc.; these descriptors were not entertained for this study.

The participants were chosen purposefully from a three-pronged search utilizing the researcher's personal and professional email contacts list, social media accounts (Facebook, LinkedIn, and Twitter), and through a network sampling process. The method uses finding "a few key participants who easily meet the criteria" that was established for participation and during the interview, ask if there are others who they may know that can fit the requirements (Merriam, 2009, p. 79). As such, we had several participants who came to the study through this referral process.

The qualitative portion of data collection sought to engage four participants within each of the four decades of interest; a total of 16. An informational email, attachment 7, was designed with the purpose of being sent to the researcher's contacts list from both a personal and professional setting. There were no exclusions made at this stage as the email included a statement "If this email does not apply to you, perhaps you will consider forwarding it within your network to others who may qualify." Total recruiting for the study across all methods yielded 40 subjects that were interested in participating with the research. Email recruiting

generated 5 interested subjects ( $n_{pe}^6=5$ ). The participants were also recruited through the researcher's personal electronic posting on social media outlets (Facebook, Twitter and LinkedIn). In regards to the Facebook posting, the same body of the email was posted in two dedicated forums, which the researcher is a member. Social media recruiting generated the largest interested subject pool, either through their self-enrolment or the forwarding of the posting within their network ( $n_{ps}^7=26$ ). Informational postings on the social media platforms of Twitter and LinkedIn generated no response ( $n_{pt}^8=0$  &  $n_{pl}^9=0$ ). Finally during the interview process of study-accepted participants ( $n=16$ ), network sampling generated additional interested subjects ( $n_{po}^{10}=9$ ).

Participants were vetted through a matrix (see Table 1) related to their designation of having attended college as a first generational student of Latino/a descent within the specified decade of review. All 40 interested participants were sent a Participant Intake Form, Appendix F, which identified general information of name, and dates of collegiate attendance. They were also electronically sent an Informed Consent Form, Appendix E, which they needed to read and sign to affirm their willingness to participate in the study. The 16 subjects were selected on a first come basis and no other qualification for subject participation, other than the previous requirements, was elected reach the point of saturation to meet the study's criterion on Latino/a first generational students who attended: a public institution, a private institution, a residential student, and a commuter student during the last four decades.

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<sup>6</sup>  $n_{pe}$ : Interested participants generated through email recruiting.

<sup>7</sup>  $n_{ps}$ : Interested participants generated through social media recruiting.

<sup>8</sup>  $n_{pt}$ : Interested participants generated through Twitter recruiting.

<sup>9</sup>  $n_{pl}$ : Interested participants generated through LinkedIn media recruiting.

<sup>10</sup>  $n_{po}$ : Interested participants generated through other forms of recruiting, such as word of mouth or personal contact.

**Table 1***Participant Eligibility Matrix-Qualitative Interview-Gender by Institution Type*

Date of initial attendance:	Public	Private	Community College	HBCU/HSI
2011-Present	M	F	F	M
2000-2010	F	F	F	F
1990-1999	F	F	F	F
Prior to 1990	M	F	F	M

*Note:* Subject gender is shown as a bivariate value and is not reflective of sexual orientation or self-identification.

**Table 2***Participant Gender*

Date of initial attendance:	Male	Female
2011-Present	2	2
2000-2010	0	4
1990-1999	0	4
Prior to 1990	2	2
Total	4	12

**Procedures***Participant Selection*

As the quantitative portion of this study entailed a review and analysis of printed material in peer-reviewed journals, there were no live participants for that section of research. This section is referent to the selection of subjects during the qualitative integration of the research.

As stated previously, due to state-mandated, and Claremont Graduate University's Institutional Review Board, Covid-19 restrictions were placed on how human subjects data was acquired. Researchers were prevented from in-person contact with human subjects and this research pivoted to socially distant methods. We began with generating a general and informative email (see Appendix A) and sending it to 45 contacts in the researcher's contact list. No restriction was made in regards to any parameter of ethnicity or collegiate status in *A priori*



assumption. In response to this first email, five (5) persons expressed interest in the study and they were sent a follow-up email (see Appendix B) that contained more specific information about the research and their agreement to participate (see Appendix E) as well as a document to access eligibility to participate (see Appendix F). When both documents were returned, a review was made that included a signature validating agreement to participate in the study, as well as all demographic information was provided. When missing, or unclear, responses were found, a follow-up communication was made to clarify/or complete<sup>11</sup>. Once all documentation was finalized for a respondent, a determination was made if there was an open slot relating to college institutional type and decade of attendance. If a respondent was selected to continue, they were sent a follow-up email to inform them of their selection and to coordinate a time for a virtual interview (see Appendix D). Two (2) eligible subjects were selected from this recruiting method.

Socially distant recruiting was also accomplished through the using of three social media platforms of Facebook, Twitter, and LinkedIn<sup>12</sup>. These platforms are free to use and it was deemed to be an appropriate vehicle to reach a large number of potential participants. The same body of the introductory email was copied and pasted onto the main section where users “post their status.” In regards to Facebook, the researcher also posted in five other specialized forums to which they were a member; The Rialto USD Teachers, UCSC Slug Rugby Alumni, Inland Empire Teachers, and Slugs in LA. Respondents to this posting replied via an email or via

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<sup>11</sup> Information included in responses was not verified and was used as a personal recollection of their experiences. Moreover, a majority of Participant Intake Forms were filled out erroneously as they replied with a numeric value and not a calendar reference to question 5. What year(s) did you attend? This required clarification in an email response or at the time of interview.

<sup>12</sup> Due to the general familiarity of these formats, a complete description and discussion is rejected.

Facebook Messenger<sup>13</sup>. This method generated 26 responses to which the same process occurred as with the previous method. Thirteen (13) of these respondents completed the required documentation for consideration of acceptance to the study. Eight (8) respondents met the criterion and were the first to fill an available position within the participation matrix (see Table 1). The second recruiting method led to additional possible participants as some expressed knowledge of others in their networks that may also desire to participate. Their contact information was given to the researcher and an email recruiting process was carried out. This process generated nine (9) potential participants, of which six (6) respondents met the criterion and were the first to fill an available position within the participation matrix (see Table 1).

### **Protection of Participants**

The study went through a complete and thorough application and review process from Claremont Graduate University's Institutional Review Board (IRB). This process addressed all components that related to human subjects protections with strict attention in meeting ethical standards for research and federal regulation involving human subjects. An application requesting permission for data collection via a newly established CGU COVID-19 Policy for Research Involving Human Subjects was submitted and approved. All results were kept confidential. Participants read and sign the informed consent form prior to conducting the virtual interviews. Each participant was notified of the purpose of the study, expected time frame of the interview, risks, and benefits for participating, and participation criteria.

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<sup>13</sup> Facebook Messenger is an instant messaging platform where users of Facebook can communicate with each other in private.

## Data Collection

### *Quantitative*

The premise in quantitative research is to find patterns and conduct analysis from an identification and manipulation of a data source (Healey, 2005). Thus, the first endeavor was to identify a rich source of data that would typically address issues of students in higher education. The study followed a three –phased review in determining our dataset. Phase 1 began with a Google Scholar and an Eric search of the terms “peer-reviewed publications on higher education.” Results generated a university libraries list of twenty-four (24) peer-reviewed journals, see full list in Appendix H. Since it was the intention to focus on the direct experiences of first generation students in college, eleven (11) journals were immediately eliminated due to their title’s unfocused attention to other areas (i.e.: Educational Gerontology and NASPA Journal). Two (2) journals were removed due to their titles indicating they were not within the time parameters we sought. This left eleven (11) journals to vet further through investigating descriptive information on the journal’s emphasis, topics, and dates. Eight additional journals were excluded due to their publication dates and/or availabilities through the Claremont Colleges Library – BrowZine (CCLB) access point<sup>14</sup>. This process left us with only three peer-reviewed journals that met the conditions for carrying out the study. Only one journal had a reference to Hispanics within its title. Thus, the search term “Latinos in” was added to search parameters and continued with another Google Scholar search of the terms “peer-reviewed publications on Latinos in higher education.” The second search result generated an acceptable option for inclusion and thus the four selected peer-reviewed journals were the American Educational

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<sup>14</sup> Claremont College Library makes available the service BrowZine to enrolled students. BrowZine is an online platform to search or browse for journals, magazines, and newspapers available from The Claremont Colleges Library or from Open Access publications.

Research Journal, Research in Higher Education, the Journal of Hispanic Higher Education, and the Journal of Latinos and Education.

After the selection of the four journals, an Excel spreadsheet was created to register a journal's complete publications from number one to the present. Titles and details of all published articles were transcribed onto the spreadsheet titled "Journal Issue-Complete list" until all editions had been populated; this became the journal specific database that was analyzed. The four peer-reviewed journals contained a total of 621 issues and 5,103 articles within the identified decades for this study (see Table 3 & Table 4). A second Excel spreadsheet was created that included the following fields: Year of publication, volume, issue, title, author(s), the KTP from the literature review, and four data analysis fields of Quantity of Key Word Units, Issue Reviewed via NVivo, NVivo Coverage %, and number of References. Using the Claremont College Library's BrowZine access portal, the journals published editions were opened and each edition's details were entered.

**Table 3**

*Editions published by journal*

Journal	Editions
American Educational Research Journal (AERJ)	309
Journal of Hispanic Higher Education (JHHE)	75
Research in Higher Education (HER)	162
Journal of Latinos and Education (JLE)	75
Total	621

**Table 4**

*Articles published by journal*

Journal	Articles
American Educational Research Journal (AERJ)	2,363
Journal of Hispanic Higher Education (JHHE)	465
Research in Higher Education (HER)	1,731
Journal of Latinos and Education (JLE)	544
Total	5,103

A combination formula was created to correlate the total number of key words that were found in the title of each article. The process utilized three different base level formulas to complete the process (see Table 5).

**Table 5**

*Excel Formulation*

	Formula	Explanation
Partial Functions	SEARCH (find_text, within_text, [start_num])	To get the location of text in a string.
	ISNUMBER (value)	Checks that a cell contains a numeric value, or that the result of another function is a number.
	SUMPRODUCT (array1, [array2], ...)	Used to count and sum
Final formula	SUMPRODUCT(--(ISNUMBER(SEARCH("key terms", journal title))))	This returns the total number of full text instances in which a term is in a title.

Since delineating data that was decade specific was a target of this research, colorized row properties were used to visually identify publications published in each decade. The first run of the formulation indicated any situations wherein an article’s title contained any number of key word/phrases identified for this study. Phrases that contained multiple words were calibrated to generate a statistical unit for each of the separate words (i.e.: *Academic preparation/ Rigorous academic courses* may have a range of one to five possible units). Data results for this first step generated an indication of what the journal title and each of the terms/phrased that was calculated. These row results were summed and they were populated in the cell “Quantity of

Key Word Units.” This analysis resulted in 59% (see Table 6) of the articles being eliminated due to no key term/phrase inclusion in their titles. This data point was used to include or reject an article for further analysis. The quantification of the total articles that contained key word references led to adding a section to the spreadsheet to identify the decade within which references to the 32 KTP/phrases were identified.

**Table 6**

*Articles retained after Phase 1*

Journal	Articles	% of original
American Educational Research Journal (AERJ)	697	29.50%
Journal of Hispanic Higher Education (JHHE)	136	29.25%
Research in Higher Education (HER)	448	25.88%
Journal of Latinos and Education (JLE)	276	50.74%
Total	1,557	30.5%

The researcher continued to validate each remaining article by visually reviewing the complete title for a title correlation to the KTP. While the phase 1 tabulation had established a reference with at least one term of the KTP, the phase 2 visual inspections was carried out to negate articles with inconsequential correlation with the intent of this study and thus inconsequential to the analysis. As related earlier, any situations wherein an article’s title contained any number of key word/phrases identified for this study would generate a statistical unit and be included. However, many articles were flagged and their intended topic was other than the experiences of Latino first generation students in college. This is illustrated with a phase 1 unit, *Modern Learning Theory and The Elementary-School Curriculum*. While the referenced KTP was “curriculum” in *hidden curriculum*, it was determined that the articles

parameters were outside of our study's interest and thus excluded in the phase 2 review. The results of phase 2 reduced the dataset even further and led to the final step in generating the data used for the quantitative analysis in this study.

Phase 3 was the lengthiest portion in determining the journal dataset (JD). This required that each article that had passed Phase 1 and Phase 2 review be read in greater depth. Since an evaluation of the articles' findings and discussion was not a premise of this research, we concentrated our efforts on the abstract, literature review, sample, and methods. These sections generated the needed information to make a determination that its focus was within the parameters of our study.

To generate the variable data for the quantitative analysis, the complete JD of all Phase 3 articles, their full text, was uploaded into the NVivo data analysis software. Two queries were generated for our research: a word frequency, which correlates the most frequently occurring words or themes in our files, and a Text Search query, which searches for identified words within the dataset -ours was set to the KTP.

The data generated in the former was identified as a categorical level value and the latter was a numerical value. The word frequency query indicated the number of occurrences when a word was present within the text and thus was continuous in nature. The research design sought the salient themes in the dataset and thus the settings were set to 50 words, stemmed variation inclusions, and a minimum of 5 characters. These settings were assessed to eliminate short words that may have inconsequential benefit to the intent; as in the words "if", "and", or "when." This data was delineated by the decade within which the article was published and in which journal. This output was identified as nominal level data, having no identifiable ranking or word

identification, and informed the seven (7) variable used and the 32 parameters used in this analysis (see Table 15).

In the text search query, the output was a count of the number of occurrences that each of the KTP was present within the full text of all Phase 3 articles. This data was also delineated by the decade within which the article was published and the journal of publication. Due to the clear ordering of the output values (0<1, 1<2, etc.), the data from this query was entered as scale. The tabulations from the NVivo queries guided our determining our statistical inferential tests.

The quantitative tests we selected for this study are One-way ANOVA, and Ordinary Least Squares (OLS) regression. Linear regression is used to test the relationship between two variables and the ANOVA indicated the strength of the relationship (Healey, 2005).

The formula for the OLS regression is as follows:  $y = \mathbf{b}_1\mathbf{x}_1 + \mathbf{c}$ .

Y is the value of the Dependent variable (Y), what is being predicted or explained  
(Y=  $\Delta$  publications per decade)

$b_1$  is the Slope (Beta coefficient) for  $X_1$  (the amount of change being produced in the Decade produced by the quantity of attention via publications)

$X_1$  is the decade of analysis (D1...D4)

c is the y- intercept

## **Qualitative**

The findings from the study's quantitative methodology were interrelated with a layer of human integration. Quantitative measures seek to numerically establish objectivity, reliability, and determining internal and external validity. In contrast, qualitative measures seek to add credibility, determine transferability, and end with confirmation of data through a personalization of experiences (Creswell, 2003; Hoepfl, 1997; Ross, 1999). Simply, the research sought to



identify if Latino/a students who were first in their families to go to college would make statements about their experiences in college that were in line with what the quantitative data indicated. The design of this section was not in tandem to the quantitative portion, but instead parallel in nature. Thus, a stronger validation would be achieved if the lived experiences of our qualitative subjects agreed with the quantitative data from the four decades of journal publications. The first task was to identify a subject pool that is reflective of the time and location of collegiate attendance this study sought to investigate.

Due to the nature of gathering data from live subjects, permission from Claremont Graduate University's Institutional Review Board (CGUIRB) had to be approved. This process required human subjects training and certification from The Collaborative Institutional Training Initiative (CITI Program). Moreover, all documents, surveys, questionnaires, communication that would be used with this study's subjects needed to be developed and approved by the CGUIRB. After all precursory requirements had been completed and approval was given, Covid 19 restrictions eliminated the possibility of in-person recruitment and study. In adhering to this limitation, an introductory email (see Appendix A) was sent out to the researcher's personal and professional contacts and posted on three personal social media accounts.

The recruiting process led to 40 potential participants who were subsequently reduced to the required 16 subjects established to meet qualitative saturation for this study. Subjects were sent a follow-up email (see Appendix D) to identify availability for virtual interview. All subjects expressed their availability to conduct the virtual interview via Zoom<sup>15</sup>. Using the app,

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<sup>15</sup> Zoom Video Communications, Inc. is an American communications technology company headquartered in San Jose, California. It provides videotelephony and online chat services through a cloud-based peer-to-peer software platform and is used for teleconferencing, telecommuting, distance education, and social relations. Wikipedia contributors. (2021, June 14).

an interview appointment was established and an invitation was sent to the subject via their initial method of communication. For the video interview, the researcher located himself to his home office on his 27" iMac. With an inability to use background filters, the background was of a full wall bookcase that held personal books and related research files; this was the setting for all Zoom interviews. On the agreed date and time for the interview, the researcher opened the Zoom interview link ahead of time and waited for the subject. As all consent materials had been complete ahead of time, the interview began with reaffirming the intent of the interview and asking for subjects to reaffirm consent to interview being video recorded. Subjects were informed of the intended length of the interview and their option to reschedule if it was inconvenient. From a prepared script, subjects were read the following:

*Thank you for meeting with me. I want to ask you some questions on your experiences as being a Latino/a first generation college student. The questions will be separated into three general areas. And at any point, if you feel uncomfortable with any of the questions, we can skip it; you don't have to answer it. You can go into as much detail or as little detail as you feel comfortable. I just appreciate your openness and candor. The questions are generalized, but whatever direction you want to take the answers to would be very helpful.*

The interview continued with a semi-structured interview design and the researcher read from the Research Questionnaire (see Appendix G). The researcher was cognizant to have a well-paced reading of the question so as to not give an impression of time restrictions, aloofness,

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Zoom Video Communications. In *Wikipedia, The Free Encyclopedia*. Retrieved 01:00, June 18, 2021, from [https://en.wikipedia.org/w/index.php?title=Zoom\\_Video\\_Communications&oldid=1028453367](https://en.wikipedia.org/w/index.php?title=Zoom_Video_Communications&oldid=1028453367)

or insincerity to the subject's insight. Also, while attention was made to ask all 31 questions from the questionnaire, discretion was used when the topic of the question had already been established completely (i.e.: academic background). After the final question, the subject was presented with an opportunity to add anything that was omitted, over-looked, or remembered later, and that was believed to add additional insight into their experiences.

Completion of the interview led to the Zoom app processing the video to a digital video and audio file. Processed audio files were then uploaded to Otter ai<sup>16</sup> for automated transcription of the subjects' audio interview file. Once an audio file had been auto-transcribed, a final review was made to edit errors or omissions in the automated process. The final file was the basis of qualitative analysis using the NVivo program.

Security measures were taken to secure the storage of research-related records & data, and nobody other than the researcher had access to this material. Printed and signed copies of the consent forms were kept in a locked cabinet and will be retained for at least three years. All electronic correspondence originating from, or relating to, respondents during the recruitment phase were off-loaded from the originating communication platform and digitally stored in a secure off-line, password protected computer folder. All data files relating to the quantification, using SPSS, or the qualification, using NVivo, were also digitally stored in the same aforementioned computer folder.

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<sup>16</sup> Otter.ai is a Los Altos, California-based technology company that develops speech to text transcription and translation applications using artificial intelligence and machine learning. Its software, called Otter, shows captions for live speakers, and generates written transcriptions of the speeches. Wikipedia contributors. (2021, May 10). Otter.ai. In *Wikipedia, The Free Encyclopedia*. Retrieved 01:53, June 18, 2021, from <https://en.wikipedia.org/w/index.php?title=Otter.ai&oldid=1022499346>

Additionally, original digital recordings of the interviews, their transcriptions, and/or analysis will be kept in the same password protected computer folder, until the summer of 2026, five years after completion of the study; at which time the digital folder will be deleted permanently.

### **Data Analysis**

The mixed methods approach to this study pivoted on indicating what trends are evident in the experiences of Latino/a students who were first in their families to attend college. The Quantitative portion of our study sought to presents trends, *if any*, which were evident through an academic publishing position. This numeric proof of a variable relationship (volume of article publication vs. decade) was theorized to give validation that decade specific themes were present. Kohn (1997) indicates, “variable-oriented analyses examine predictor variables, their relationship to each other and their effect on the outcome” (p. 6). Correlated, decade-specific, trends was predicted to be evident though a numeric analysis of the titles of articles published in peer-reviewed journals.

The qualitative investigation was designed to be a narrative inquiry investigation. In Narrative Analysis, the researcher seeks to make sense of stories based on the direct experiences and perspectives of the participants (Merriam, 2009). Merriam identifies that “the key to this type of qualitative research is the use of stories as data, and more specifically, first-person accounts of experiences told in story form” (pg. 32). Moreover, this type of research is used to explore those situations where one seeks to “‘explain’ a phenomenon” and identify causal relationships (Yin, 1994, p. 110). Explicitly, the study explored whether subject interviews regarding their collegiate experiences reference the themes that emerged from our quantitative

investigation. Thus, the process involved a methodological design (see Appendix J) that went from the identification of the bounded theory, identification of subjects, gathering the data, and analyzing the results via qualitative analysis software.

The sixteen transcribed interview data files were uploaded into a new project file using NVivo Data Analysis software<sup>17</sup> and separated into four files representing the decades. Next, a text search query was run to determine the number of KTP exact term references were present. A program setting including stemmed words allowed for conjugated forms to also be included. This step had its limitations in that it would select only a limited variation of the wording and not the nuance of the intended response.

Thus, thematic coding continued with the intent to assign investigational relevance of statements using the KPT set. Nodes were created that were indicative of each of the KTP and the researcher's review of each data set for correlation to a node identifier. This was done for all transcribed interviews.

Chapter four presents the findings of the mixed methods approach of this research, and chapter five will have the findings that were condensed and summarized and then "written up as a comprehensive description of the case" (Merriam & Associates, 2002, p. 179).

### **Instrumentation**

The researcher was the developer of the five instruments used in this study. Each instrument was generated to fill a gap in research materials that met the needs of this study. Four instruments related to the quantitative portion of this analysis and one to the qualitative.

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<sup>17</sup> *NVivo is a qualitative data analysis computer software package designed for qualitative researchers working with very rich text-based and/or multimedia information, where deep levels of analysis on small or large volumes of data are required (NVivo, n.d.).*

### ***Decade Specific Database***

Preliminary investigations were completed using Google Scholar, Eric, and other academic rich repositories for publication research. A compilation source was sought that detailed information that included title, article information, and article text for every year of publication from four peer-reviewed journals; none was found. A necessary precursor to statistical calculations is identifying a database that is organized as a rich source of relevant information (Healey, 2005). In the absence of the needed database for our research, the first four tools created were excel databases that included all editions, and articles from the American Educational Research Journal, the Journal of Hispanic Higher Education, Research in Higher Education, and the Journal of Latinos and Education; one worksheet was generated for each. The worksheet included article information identifiers related to: year of publication, volume, issue, title, author/s as well as analysis columns referent to: quantity of key word units, NVivo % coverage, Whether issue was reviewed via NVivo, number of references, as well as correlation to KTP being included in each article. This instrument was the key source for generating the final database used for this study's quantitative analysis.

### ***Semi-Structured Interview Protocol***

In qualitative data analysis, the researcher serves the function of an exploratory tool that examines the fluidity of interpretation in the lived experiences of a research participant (Hoepfl, 1997). While there are no preset selections of multiple choice responses, a general area of exploration is identified where the, "interviewer is free to probe and explore within these predetermined inquiry areas." With this in mind, a semi-structured interview tool was generated

from an examination of quantitative data. The analysis of the responses embraced the constant comparative method, in which observations are compared with one another and with the evolving inductive theory (Merriam, 2009). To guide the collection for qualitative analysis, the fifth tool was a 31 question, semi-structured interview protocol on the participant's experiences as a Latino/a first generation student in college (see Appendix G).

Validity is used to determine if the research findings are accurate from the standpoint of the researcher (Creswell, 2008). Content validity was addressed in both parts of data accumulation. In the quantitative portion, systematic procedures were made to assure that *all* articles from the four peer-reviewed journals, from its inaugural volume to the last one in 2020, were included. This entailed several stages of review verifying that there were no missing data points in the four research tools. Validity in the qualitative portion of the study was achieved through the use of the semi-structures interview protocol and precision in the interview transcription. Audio recordings of interview were uploaded to Otter.ai for initial transcription. Once these had been transcribed, each interview was reviewed to tag each speaker, and audibly verify accuracy of auto-transcription. Any questionable references through an audible review were then reviewed using the video recorded format; this would add context and clarity from a visual review of facial expressions and mouth contortion

### **The Role of the Researcher**

Using multiple methods for investigation also brought multiple pathways for researcher bias within. Every possible effort to curb the researcher's personal feelings and predispositions to this study was made. For purposes of the following section, I will switch to the first person style of writing for clarity.

I am a male, tenured public school teacher. I am a product of emigrated parent from Mexico and I was the first-born in the United States. I have been the beneficiary of academic enrichment programs like the LAUSD Gifted Program and the “Gold track” for college readiness. I was granted acceptance to two highly regarded universities, Berkeley and UC Santa Cruz, and I became the first in my family to graduate college. At the completion of this terminal degree, I continue to ask the question *what made it so that I had the academic success that I was able to attain?* A product of the inner city, I was statistically anticipated to be among the low-wage earning proletariat of my time.

By my calculations, I have been in a classroom for half a decade; I have been a student, a teacher, a student, a teacher, etc. As a product of the Los Angeles city public schools system and its inherent problems, I was able to succeed in my schooling and make a path that led me through higher education. All along, I was confident in my abilities for logic and syntax. I would often wonder, however, if I were an outlier within my peers. I began to question whether it was simply the programs that I was privy to that made the difference. If that were the case, were these programs available to my Latino academic predecessors? Were my kind growing in numbers that now there was interest and thus more availability of these programs? These types of internal dialogue were the foundations to this research.

My academic, social, and economic wealth does implant a perspective of personal traits that permitted these accomplishments. Thus, any of my beliefs and criticisms within this research had to be mitigated to create research validity herein.

The quantitative portion of this research required little attention to the question of validity. Quantitative measures are merely the process of making findings based on “inferences made from test scores on psychometric instruments” (Creswell, 2000). However, the qualitative



portion on this research may be subject to researcher bias. To this point, the researcher established an approach of *epoché* phenomenology. To establish this absence of judgment in identifying knowledge, the fifth research tool was followed with all participant interviews; as well as an introductory script that initiated the interview process.

### **Ethical Considerations**

The researched followed the rules and procedures of the CGUIRB. Due to the sensitive nature of research with human subjects, the researcher completed certification through CITI on Social and Behavioral Research. The application and approval process from the CGUIRB for this study determined the participants not to be a part of a Vulnerable Subjects demographic, however, great care was consistently addressed to respect the rights and wishes of all research subjects. The qualitative case study portion of this investigation included first hand recollections of students whose first generational experiences occurred during the identified timeframe. As such, participants were apt to share demographic information as well as personal experiences of their collegiate interactions during their undergraduate studies. The interview process followed a semi-structured question process and allowed participants to offer as much input, or as little, as they deem comfortable. The open-discussion format allowed participants to share experiences that were deeply personal, poignant, or that may have had personal, physical, or emotional scaring as results of their collegiate years. The release of these disclosures, either deliberate or accidental, may have had harmful consequences on the participants; participants may experience psychological discomfort due to their recollections or having divulged traumatic collegiate experiences. In such an event, it was appropriate to debrief a participant of their part in the research when the intent was in “reduc[ing] pain, stress, or anxiety concerning the [research

participant's] self-perception or performance” (U.S. Department of Health & Human Services, 2019), and the researcher relating his own personal experiences with those of the subject accomplished this.

### **Summary**

This chapter positioned the study within two methodological approaches by first describing the context of the study and research setting, outlining the guiding research questions, and providing a rationale for the study’s dual methods approach. Included in this chapter was a description of quantitative dataset that was generated, the research participants, interview procedures employed, and data collection and analysis utilized. This chapter concluded with an examination of the protection of the participants, ethical considerations, issues of validity, and the role of the researcher in the study.

## **Chapter 4. RESULTS**

### **Background**

The findings presented in this chapter result from a gathering of data on the experiences of Latino/a first generation students as they were addressed in four (4) decades of educational publishing. Chapter one began with an introduction to this study and the purpose. Therein the premise that publications on this topic may be cyclical in nature was discussed and a need for understanding the research across four (4) decades of review was needed. What the journals stated about this demographics was the focus and first hand accounts from Latino/a students who were first in their families to attend college during each of the four decade-long timeframes augmented the information. Here too, the key terms that would guide the investigation were presented. Chapter two presented the literature review, which established the foundation for this study. The 32 KTP that is pivotal in this investigation was rooted in the findings from academic researchers, theorists and practitioners from across various disciplines. Next in chapter 3, the research design and methods that were employed in quantitative and qualitative measures were presented. Thereafter, the five (5) research tools created to generate the needed data for this inquiry were detailed. The data was disaggregated temporally to make inferences as to what themes emerged from the journals and their support, or lack of, from study participants within those timeframes. In this chapter, the results of the research will be presented.

The findings come from reviewing 5,103 articles in four peer-reviewed journals and 16 interviews with Latino/as, first generation students who attended their first year of college during each of the decades. The findings provide insight to the three central research questions of this research:

- Quantitative: Is the number of peer-reviewed articles on Latino/a first generation students significantly different over from the last four decades (2020-2010, 2009-2000, 1999-1990, and pre-1989)?
- Qualitative: What are the salient themes that emerged from Latino/a first generation students who attended college in each of the four decades (2020-2010, 2009-2000, 1999-1990, and pre-1989)?
- Mixed-Methods Question: How do the lived experiences of Latino/a first generation students support or refute the topics studied in each of the identified decades of research (2020-2010, 2009-2000, 1999-1990, and pre-1989)?

This chapter will present the key findings and themes from 16 semi-structured interviews from participants that span college attendance from 1977 to 2021.

### **Introduction: The Study and the Researcher**

The current study was, in essence, a retrospective on academic publishing. The research goal was to synthesize what is known about publishing on the topic of Latinos/as who were first in their families to attend college. The premise was made that as the interest in this demographic increases then so will interest, research, and eventually publication.

In chapter one, it was indicated that an argument could be made that publications are the manifestations of a current research interest (Clay, 2009). There is also further evidence that the process of journal publication is “a strong signal of thought leadership, a quality that organizations and donors like to see in technical specialists as well as researchers” (Brown, 2017). This thought leadership could manifest as the opportunity to publish in areas that will increase the knowledge on a topic and advance Academia in its ability to address it.

The premise of this study contends that little research on this topic is equal to little interest; the reciprocal would also be true. The current research on academic publishing regarding first generation students brings many benefits over short-term studies due in that “that development takes years, even a lifetime, in a path that remains hidden from a short-term study” (White and Arzi, 2005, p. 147). In that study, White and Arzi (2005) were referring to an individual person, yet in the current study the individual level of interest is one peer-reviewed journal. Thus, testing the journal’s change over a period of time is similarly being tested. This change parallels the researcher’s experience in education and led to the idea for this study.

### **Description of the Sample**

Participants for this research were recruited through a regulated process subject to the State of California’s Covid-19 mandate. The process restricted in person contact and was adopted through the Claremont Graduate University’s Institutional Review Board. Thus, all participants were contacted and enrolled through a virtual process of email and social media platforms. With all parameters in place to limit researcher bias in selection, the researcher used self-reported information that the applicants used in completing the Participant Intake form; there was no verification process used related to this documentation. The final sample included 16 subjects who met all conditions for participation. To protect the privacy of participants, pseudonyms were assigned through a randomized naming process. All subjects, except one, were located in California, yet varied in other demographic descriptions (see Table 7).

The sample included eleven (11) females and five (5) males, see Table 8. All participants were employed in five sectors of industry: Nine (9) in the public education, four (4) in government, one (1) in healthcare, one (1) in recreation, and one (1) in finance.

**Table 7***Participant Demographics*

Pseudonym	Current Occupation	Location	Decade of Attendance
Catalina	Teacher, HS	Southern Ca	Pre-1989
Hernando	Ex-Superintendent	Central Ca	Pre-1989
Onofre	Counselor/Administrator	Southern Ca	Pre-1989
Tatiana	Attorney	Southern Ca	Pre-1989
Azahara	Teacher, HS	Southern Ca	1991-2000
Celestina	Clinical Therapist with at risk youth	Southern Ca	1991-2000
Eva	Teacher, 5th grade	Southern Ca	1991-2000
Tomasa	Middle School Coordinator	Southern Ca	1991-2000
Cande	Community Relations Coordinator to Councilmember	Northern Ca	2001-2010
María	Grant writer and Community Partnership Manager	Hawaii	2001-2010
Mariano	Security Officer/HS	Southern Ca	2011-2020
Violeta	Teacher, HS	Southern Ca	2001-2010
Reinaldo	Data administrator	Southern Ca	2011-2020
Santiago	Personal Trainer & Students/ASU	Arizona	2011-2020
Sarita	Licensed Vocational Nurse, Kaiser	Southern Ca	2011-2020
Viviana	Community Liaison: Homelessness	Northern Ca	2011-2020

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*n*=16

**Table 8***Participant Eligibility Matrix -Gender*

Date of Initial attendance:	Male	Female
2011-Present (D4)	3	1
2000-2010 (D3)	0	4
1990-1999 (D2)	0	4
Prior to 1990 (D1)	2	2
Total	5	11

The participants were all selected so that there was equal representation across the four decades of research. While all efforts were made for a balanced representation, the number of interested applicants and eligibility review process did not afford gender equity across the decade's parameter. As such, over two-thirds of the participants were females, and two decade parameters were populated with only female participants, see Table 9.

**Table 9**

*Participant Eligibility Matrix - Institution Type*

Date of Initial attendance:	Public	Private	Community College	HBCU/HSI
2011-Present (D4)	M	F	M	M
2000-2010 (D3)	F	F	F	F
1990-1999 (D2)	F	F	F	F
Prior to 1990 (D1)	M	F	F	M

### Hypothesis Testing

The study sought to quantify the interest there has been on Latino/as who are first in their families to attend college. It was hypothesized that as the number of this demographic was increasing as attendance in college that there would also be a similar increase as reflected in the number of publication in peer-reviewed journals on the topic. The null hypothesis ( $h_o$ ) would indicate no significant change in these publications. Our  $h_o$  was generated by taking the total of published articles in the Higher Education Review that addressed the identified KTP themes for the research. This sample data generated our  $h_o=6$ . This led to our  $h_1 \neq 6$ . In determining to accept or reject the null hypothesis, the statistical hypothesis testing was based on the Central Limits Theorem, which indicates that as repeated and random samplings are taken from a population then their means will approach normality (Healey, 2005).

## Research Methodology Applied to the Data Analysis

A mixed methods methodology was established for the study. A basic qualitative investigation was used to answer questions related to personal experiences in college and how those experiences related to 32 key areas of interest. To add a layer of personal confirmation to the themes that were extracted from the research gathered in peer-reviewed journals, sixteen Latino/a first generation students were interviewed using a virtual meeting format via Zoom. The interview consisted of open-ended questions that were designed to address the research question. Participants were guided through the interview by 31 semi-structured questions, but they were encouraged to answer the question in whichever direction and to whatever depth they wished to do so. They were asked to be as candid in responding to questions, as they were comfortable in doing so. The questions were divided into three main areas that addressed their family background, their preparation for college, and their college environment. The family background contained six questions and was anchored by: *Explain how your family was involved in your decision to attend college?* The college preparation section also had six questions and was anchored by: *What is the earliest you recall that you started to prepare for college attendance? And Why?* And finally, the college environment section had 17 questions and was anchored by: *What was your first year like as you attended college? What sticks out in your mind?*

The coding process entailed starting with a pilot sample and nodes for each of the KTP terms identified in the literature review. To build an effective coding structure, these terms were disaggregated from combination terms to stand alone descriptors that would aid in building an efficient node hierarchy. There were an initial total of 38 nodes and the beginning of the pilot-sample. This process revealed a comfortable process for applying codes to the participant data,



but it was evident that four areas of repeated comment was not included. Nodes were added to address these areas, see Appendix H.

## **Presentation of Data and Results of the Analysis**

### **Overview of the Participants**

This section included the presentation of the data of each participant's responses to the interview questions. All study participant's names, places of employment, and all identifiable locations were given a pseudonym to protect their privacy. The responses were analyzed and resulted in the themes that emerges and are presented here.

#### ***Azahara:***

Azahara is currently a middle school teacher in the Southern California regions. She has been in education for 25 years and recalls that she knew at about the age of 12 that she wanted to be a teacher. Azahara attended a junior college in 1996 where she received her AA and then continued to get her baccalaureate at a California polytechnic college. She subsequently returned to earn her teaching credential. She related that she believes that students do not have to begin at a 4-year university; that a community college is a good start.

Azahara had the least number of coding related to the study's KTP. She commented the most on her time at the community college and related that, "I felt very comfortable at Trio. There was a little pressure. Once I got to Cal Poly, I didn't feel as though I fit in anymore." Her references to college finance were similar to one other participant. She related that she did not worry herself with paying for her first collegiate experience as her, "parents paid for all my

college through to my BA. With three siblings going to college at the same time and them paring for it all, I don't know how they did it.”

***Cande:***

Cande works as a community relations director for a city councilmember. She immigrated to the U.S when she was six years old and grew up in Southern California. Her first experience in college was in attending a public, 4-year university in Northern California in the winter of 2010. Cande earned her B.A. in Psychology and is currently in process to return to school to earn her Masters. She related her collegiate experience held both a positive and negative situations.

Cande coded on 19 KTPs and had the fifth highest references within her interview transcript. She coded the highest in two main areas: *College Finance* and *Family Finances*. She related that just prior to entering college, her parents disowned her and that created financial obstacles to attend the university where she had already been accepted. She relied of school representatives to assist her in figuring out how her education was going to be feasible. She related that, “when my parents disowned me, I went to the school and kind of seeked [sic] harbor there. And so that's when I started seeing the school psychologist, and they told me that I can file independently, so I didn't have to rely on my parents information.” Understandably, the second highest coded area related to her managing her independence while in college and the eventual reconnection with her family in her senior year when her family eventually began to contribute to her finances.

Cande related an incidence of sexual assault on campus that generated the university being implicated and them offering to pay for her schooling. This coincides with two highly

coded KTPs as Perseverance and External Factors. She indicated that there were many areas of support that she found at the university. Aside the “cover up” as she noted, she got support from LGBTQ themes residences and organizations. When asked what she would recommend to others in her similar situation she indicated, “I would advise him to really take advantage of the resources and actively seek those resources as especially, especially therapy and counseling.”

**Catalina:**

Catalina is a high school teacher at a Southern California school district. She has been teaching for 15 years and has recently earned her Ph.D. in Education. In 1998, she started her academic path at a community college in Northern California and indicated she is one of seven children of immigrants from Mexico. Dr. Catalina is notable in that she the only participant to hold a Ph.D. in Education Administration and have begun at a community college. She related much of her comments to *Access, Assistance, and resources*.

Dr. Catalina relates that getting through higher education was a struggle to find out things that were not readily shared with her due to her immigrant and female status. She related being tracked into remedial courses like typing and auto shop in high school. With aspirations to go to college she related a story of her assigned counselor:

My counselor at the time, my high school counselor never really asked me whether I wanted to pursue education. I do remember meeting with her. But it was basically this is..these are the courses that you're going to take and that's it. Go by your merry way. I guess you can say that.

Dr. Catalina related that she felt underserved throughout her schooling and was the reason that at the community college, she needed to take requisite remedial courses in English

and Mathematics to be able to continue. She credits some of her success to programs like SAA/EOP at the time and indicated that:

If we did not have that, at the time, I probably would not be able to have been enrolled. Because, I had a lot of factors against me, not having the right course load to be able to enter into a college system, I think it would have been something that would have worked against me. And the fact that *that was* in there gave me the opportunity to do so.

Dr. Catalina related her lack of information and also her lack of academic preparedness to a lack of rigor in her high school courses. She commented a lot of the remedial courses she was assigned like typing, banking, and data entry. She did affirm that she never knew that she could request to change her schedule and complete UC identified A-G requirements to be college eligible at graduation.

Dr. Catalina's next area with the highest coding was related to *College Financing*. She indicated that she transferred to a UC from the community college due to their guaranteed transfer agreement between the two institutions with adequate academic progress. She indicated that while in her junior year, she went through a divorce that left her with no money to pay for college. She relied on financial aide to pay for fees and to support herself and her newborn son. She indicated that the university assisted her with counseling, housing, and childcare while she completed her studies there.

***Celestina:***

Celestina works as a Clinical Therapist for at-risk youth, and she has been in that position for four years. Celestina has been a Southern California resident her entire life and all her schooling was completed in the same. She attended a public, 4-year California State University,

which she began in 1998. Celestina's interview covered the 4<sup>th</sup> largest number of KTPs with Access, Assistance, & Resources being the theme most referenced. She indicated that much of her schooling decisions came from her own directions and now knowing because better. She related that she was not aware that living on campus was an option and that, "I look bad, I don't think I was aware that that was an option. And I never consider that as an option."

Celestina indicates she is the youngest of seven children and that growing up, they all lived in a two-bedroom house. She considered herself low-income, yet relates that she is the only one that has earned a Master's degree thus far. She states that she feels she never got "good information" and it was her inquisitive disposition that made her seek out solutions. She indicated a few times that she doesn't place all the blame on the school for not being effective in providing the information. When I asked her to quantify the amount of blame accorded to the school, she indicated "50/50." She explained further that looking through her present lens, she feels half the blame goes to her because it was intimidating.

Celestina also commented a lot about the amount of family involvement that was required during her studies. Her being the youngest and a female brought a lot of communication about her whereabouts. She was a commuter and she indicated that her experience during a few short weeks of a summer bridge program "was just to get me ready for what college would look like." She indicated that this conflicted with her upbringing where, "you don't leave your home, like in the same in the culture, like, especially as maybe like, you know, Latina, I mean, a woman, you don't leave your home again, only if you get married. And then education was not something that like a woman would do especially like at during my time."

***Eva:***

Eva is currently a 5<sup>th</sup> grade teacher working for a school district in Southern California, and she has been employed with the district for 21 years. She is one of two female participants with doctorates and the only one with an Ed.D. in Curriculum and Instruction. She has previously been an administrator for the district, but indicated that with district restructuring she decided to return to the classroom. Dr. Eva went to a community college identified as a Hispanic Serving Institution (HSI) and began her collegiate studies in 1993. Dr. Eva's interview addressed the third highest KTP themes (n=22) and had the most coding references from her statements (n=69).

The majority of Dr. Eva coded references related to three KTP themes: *Teacher-Mentor*, *Academic Preparation*, and *Parental Expectations*. She attributes a lot of her success to key individuals who guided her early in her schooling. She commented about a Cuban teacher "who saw something in me, I don't know what she saw. But she used to tell me I know you're aiming to go kids at that school at that time, it was working with USC." She indicated that she was part of a school program that prepared students with specialized instruction to attend college and also emphasize a field; her was geared towards business training. She commented that it was not her parents that guided her early academics, but that it was her teachers. Dr. Eva was identified as an English Learner and some of her course interests were limited due to this classification. It was the intervention of a teacher/mentor that had her test out of the language program and freed her access to college preparatory classes. She shared that not all interactions with mentors were positive. She mentioned her interactions with her assigned college counselor who simply gave her a sheet with a required course completion and she then had to return at a later date once the classes had been passed; she indicated not even remembering these interactions.

Dr. Eva attributes her academic success to her *Academic Preparation*. Her participation with college geared schools and her participation with AVID<sup>18</sup> prepared her for the rigor required of college students. She indicates that even if students don't take advantage of these types of programs that they need to be offered because:

“AVID program, I know a lot of people don't like it. That's the reason why I think that avid is very important, even though it's expensive, super expensive. I think that programs like that needs to be out there not because every Latino kid or every African American kid, or every child is going to take it, but you need to get those opportunities.”

She indicated her middle school experience with language and indicated, “I had the highest classes. So I was ready for the high school. I knew where I wanted to go. But it was just weird. Like, she was wondering, like, why are you.. you know, why are you like, not taking these classes? And I'm thinking because she didn't tell me. And if they wouldn't have taken that time, I probably would have stayed in ESL.” But even though she felt prepared for collegiate work, she indicated her struggles with, “I was underprepared. When it came to reading, and writing, I was underprepared. I can honestly tell you that I was underprepared. But I was doing great when it came to math and science.” Articles from the quantitative data like Gibson & Bejinez (2002) and Auerbach (2006) indicate that these targeted programs help minority youth, like young Dr. Eva, to become academically prepared for college.

Dr. Eva is a child of immigrants who came to the U.S. to flee a civil war. She related of her family's early struggles for nourishment and of having to survive on powdered milk and vanilla wafers. She attributes her family's early political struggles with her *Parental*

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<sup>18</sup> Advancement Via Individual Determination (AVID) is a college preparatory program for middle and high school students.

*Expectations* to make things happen for her and as she states, “I think that's the reason why whatever opportunity was out there for me, I just grabbed it.”

***Hernando:***

Hernando is currently in transition from having been a public education superintendent for a rural school district located in California. He has been in education administration for 20 years and is currently re-evaluating his career goals. Hernando began his collegiate experience at a 4-year public university, and he is the only male participant with an Ed.D. in Education. Dr. Hernando's interview generated the second highest coding's for KTP themes (n=24) and also the highest references of all participants (n=91). His most coded theme was in the area of *Identity and College Finances*.

Dr. Hernando indicated that he is the son of an immigrant mother and immigrant stepfather. While he did know his biological father, he was not a permanent part of his life when they moved to the U.S. Dr. Hernando commented abundantly about growing up in poverty and that his early schooling trajectory was hindered due to his recent immigration. He indicated that, “I, we came here in '79. As a family, I could not start school right away because we didn't have all the proper documents, birth certificate shots, you know, to start school.” He did adequately in public schooling, but he was never challenged academically until a high school counselor noticed his abilities and challenged him. It was this agent that primarily guided Dr. Hernando's application process to the university and eventual acceptance.

Dr. Hernando, now a father of two college students, related how identity played a large part of his completion of his undergraduate degree. He played it off as simply, “I was just a weird freaking Mexican” when he recounts of his struggles and being placed on academic



probation. He further stated that his daughters would have to contend with similar situations where:

Self-identity was something they have to go through because I raise them more like a Mexican. You know, let me you know, say, Well, I'm Mexican, what am I, you know, if you if I cook what you think I'm gonna cook? Mexican food. You know if I, if I'm listening to music and I'm a little tipsy, what do you think I'm gonna listen to? I grew up my, you know, my parents come over my whole family comes over where they were going to speak?

Dr. Hernando struggled with identity more than many others due to the fact that he was truly “Mexican” and not one of the many titles that amalgamate national origins to single descriptors like Hispanic or Latino. His fixation on identity was what he believes made him stand out and it wasn't until he reimagined his identity that he gained academic success. He stated, “I really think when I made that decision, Teddy, to get out of my bubble, my Mexican, Chicano bubbles in embrace the larger [university] bubble. I think that changed who I was literally changed how I thought about things.”

Even more that dealing with his identity, Dr. Hernando exemplifies the Latino/a first generation student who sees opportunity in college attendance, even in the uncertainty of how such a premise will be finances. Dr. Hernando applied, was accepted, and left for college all within a matter on two months. His high school counselor filled out the application, paid the filing fee, and even received the acceptance letter in his stead. Dr. Hernando was informed of the good news and that he would have to leave for a summer bridge program within a few weeks. He recounted that, in his mind, he had to leave his good paying job as a grocery bag boy to attend college.

While in college, his dealing with finances for him and his family were if utmost concern.

He indicated that he would:

I would drive all the way from XX, get to my parents house. Probably, you know, drunk.

Well, how much money you guys need? Well, I only have \$200. Okay, here's \$200

Okay, I'm leaving tomorrow morning, you know, I only have enough money to go back with gas. And that's it

Dr. Hernando did not balance the financial responsibility evenly between home and school; he swung it more in favor of his family. He is part of the large percentage of the respondents who indicated that their family's health and welfare were still part of their responsibility. This occurs even with a perceived hope and current detriment to the student and Dr. Hernando illustrated this with his comment:

I had no reason to complain, even when I was homeless, you know, you even want when, when I, when didn't know where I was going to sleep that night, I said, I still felt that I had every opportunity to be successful

The experience of this respondent is referenced in the D1, quantitative data from the Review of Higher Education. Therein, Stewart (1987) relates that multiple factors need to be addressed for supporting minority college students; clear financing sources, information for parents about the college process, and precollegiate schooling. Dr. Hernando encountered all three hurdles and is now an advocate for institutional supports working in tandem with personal drive when he states, "just get on with it."

***María:***

María has been working as a grant writer and community partnership manager in Hawaii for the last four years. She started at a community college in Northern California in 2004 and after transferring to a university earned her baccalaureate degree in Anthropology; she is currently enrolled in a Masters program. María's interview generated the most KTP coding of all participants (n=25). María's top coded theme related to *Family Involvement*.

María was raised in a single father household. While she maintained contact with her mother, the main influence and direction for schooling came from her father. She related that, "Here's one thing about my dad, my dad, my dad knows all the names of all my favorite teachers throughout my life." This strong connection with family was not evident through the experiences of her extended family in Northern California. She indicated that she was not allowed to "kick it" with her cousins to limit her potential for her getting into trouble. María related that she relied heavily of her father, who paid for all her schooling, as a primary source of support for her schooling. She indicated:

The group of people around me that were closest my family, my really long term, friends, you know, that were like family, extended family, friends. I didn't have any support from my college experience from them.

María shared that both she and her father identify themselves as Chicanos. She relates his political activism in his life and in his profession as a business agent in the trade industry to her feeling of empowerment to accomplish her goals. She does feel that she struggled to complete her undergraduate studies. She comments that programs like the PUENTE program for underrepresented youth substituted for the lack of family support she encountered. Her involvement with PUENTE allowed her to commiserate with other first generation students and

gain the needed encouragement to complete her degree. María related, “The ultimate question is, would my academic sort of trajectory have been better if I had familial support? Yes, absolutely. 100%.”

***Mariano:***

Mariano is a Safety Officer for a school district in Southern California. He has been working in that capacity for 12 years. Mariano attended a community college in 2000 and earned his AA in Administration of Justice. Mariano’s responses to the semi-structured questions addressed two main KTP themes: *Community College* and *parental Expectations*.

Mariano is the youngest and only son of 7 siblings. He indicated that his parents were more focused on blending into an American lifestyle than pursuing education. He was not overly successful in high school and followed the crowd with his friends. His high school counselor was also not a source of direction to college. He related he once took a chemistry class, with which he was struggling, and that he found out that he did not need the class for graduation. So, he dropped the course and took an elective. This lack of school support was one factor in his current academic standing.

Mariano did comment that he was fascinated from an early age of the law enforcement field. He didn’t think that cops needed a college degree and that it is the current status in the field. Because of that, his parents acquiesced to his desires for schooling and that his dad once told him “if you're not going to go to college, you need to either get a job where you know, that's going to be where you're going to be needed.”

***Onofre:***

Onofre is currently retired and worked 34 years as a teacher, high school counselor, principal, and district level administrator for a school district in Southern California. He began college in 1975 at a community college and HSI. There were five top KTP themes that emerged from Onofre's interview including *Access, Assistance, & Resources* as well as *College Finance*.

Onofre grew up in Southern California in a mostly Hispanic neighborhood where fitting in to the American lifestyle was a norm. He stated his parents were not really involved in his schooling and that he was a latch key kid growing up. He attributes his academic trajectory to his school peers that challenged themselves to get the best grades. This peer-mentorship was a primary source of information and laments that his counselors did not do very well. He stated, "I felt like my high school counselor didn't really pushed me to be or give me the tools that I needed." This lack of assistance required that he develop self-determination and indicated, "I have to say, I was pretty determined once I started to finish. And so even though I worked, and I commuted, I did get married, have a child before I graduated from college."

Onofre shared that there was a sense of isolation that he felt due to him commuting home during the weekends and his peers "antics were kind of childish." During a time when he shared off-campus housing with peers, he commented that he felt that rents were cheap however it came to bear because he paid for everything and did not receive assistance from his parents. He indicated, "I paid for it. I lived in the dorms; I paid for it. I didn't get money from my parents. Somehow I just was able to afford to pay for it."

***Reinaldo:***

Reinaldo is a Data Administrator for a financial group in Southern California. He has been employed as such for three years and attended a public 4-year university in Southern California starting in 2013. While there, he earned a Bachelors of Science in Business Administration with an emphasis in Finance, Real Estate, and Law; he is currently earning his Financial Advising license. Reinaldo is the second eldest of four to immigrant parents from Mexico. Reinaldo's responses coded at the mean of 15 and were highest in *College Finance* and *Academic Preparation*.

Reinaldo's academic preparation was similar to Onofre. He relates that in high school he was part of a peer cohort that had a friendly competition as to who would earn the higher grades. This friendly rivalry was a positive attribute of college minded students and he related that, "we were always supposed to push each other to just study more; do better on tests. So it came a lot. My motivation to keep going to school came a lot from my friends." Reinaldo took a lot of AP classes and really enjoyed Mathematics. He attributes this preparation for his doing well at a California Polytechnic college.

Reinaldo's parents immigrated to the United States illegally and thus Reinaldo is also an undocumented immigrant and not eligible for federal financial aid. Consequently, he had to work multiple jobs while in college to pay for his schooling. I wasn't until the later part of his college that the DREAM act<sup>19</sup> was enacted and it allowed him to receive some federal grants. He related that financial concerns could have easily derailed his academic progress, but with his

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<sup>19</sup> The Development, Relief, and Education for Alien Minors Act, known as the DREAM Act, is a United States legislative proposal to grant temporary conditional residency, with the right to work, to unauthorized immigrants who entered the United States as minors—and, if they later satisfy further qualifications, they would attain permanent residency (Wikipedia, 2021).

jobs and receiving state and federal grants that he is proud to not have any student loans to pay off.

His source of pride did not come without a price. Reinaldo indicated that besides working multiple jobs, he had to limit his stay as a resident in his first year. He commented that he wanted to save the money from on-campus housing and instead commute. He related “I did have to take a loan to live on campus for that first semester. And I didn't want to go more deep into that loan. If, if I kept living there.” His comments would normally be standard for college students, except that it coincided with first generation students who are conscientious about college financing. It is made even more telling that when asked to make a recommendation to future students he indicated:

“Live on campus. Even if it's for one semester, even if it's for... Yeah, even if it's for one semester, just try it. Like... And also, don't be afraid to go further than, well; don't be afraid to go out of state. Um, I know that that's a huge financial burden. And it's like from as a finance guy.”

His words are indicative of the 15 of 16 participants that stated finances were a heavy burden to carry during their studies and the correlated high number of publications on the topic in the peer-reviewed journals that related to an easing of a financial load when grants are available to students (Mendez & Bauman, 2018; Winkler & Sriram, 2015).

***Santiago:***

Santiago is currently still completing his undergraduate degree in Arizona. He works as a Personal Trainer with his present employer for two and a half months, but has held similar positions for five years. Santiago was born and raised in Southern California to immigrant

parents from Mexico. His parents divorced while he was young and he indicated that his father played no role in his academic career. He is the second eldest of four siblings and the only one to enroll in college. Santiago started college in 2012 at a California State University and HSI. Santiago is the only participant that indicated enrolling at a 4-year institution, changing his attendance to a community college, and currently enrolled at a public research university. Coding for Santiago's interview was benefited from the addition of a node related to *Difficulty Engaging in College*. Four participants indicated factors, both personal and institutional, that contributed to hurdles in completing their collegiate studies effectively. As such, Santiago's statements were coded five times on this theme. Santiago's next most frequent theme was related to *Perseverance, Assistance, & Resources*.

Santiago describes his mother's persistent involvement in guiding him to and through college. He retold that it was his mother that pushed for him to apply to college and in applying completing the FAFSA so that he can receive financial aid. He indicated that it was not his choice to be in college and simply had to do so. His comments indicated displeasure with his situation and a resolve to go through the paces. He stated:

So in the sense that one I was it wasn't my choice to be there. So they kept pushing me to be there. And then two, it felt as if it was kind of like a duty slash job to be there just because they were like, okay, you're going to wake up, you're going to go, and that's basically your life now for the next four years. And by the end of the four years, you should have a degree.

Santiago attributes his disconnection with wanting to be in college to failing some courses and being required to exit there and go to the local community college to continue. He related that while at the community college, he was able to realign his desire to attend college



and earned his AA in Kinesiology. Santiago now attends a public, 4-year university to earn his full bachelors degree in kinesiology. When asked about how it's going now he responded, "Yeah, a lot better. Because now I feel like it was my decision. And I got to choose my school. And yeah, it's going a lot better now."

***Sarita:***

Sarita is a Licensed Vocational Nurse (LVN) and works for Kaiser in Southern California. She has worked in her field since 2013 and mentioned that she is in process to return to schooling for licensing to be a Registered Nurse. She is the youngest of four siblings and indicates that she is part of a large, Catholic family. Her father is an immigrant from El Salvador and met her mother in the U.S. who was an immigrant from Mexico. Sarita attended a private, for profit, vocational college that specializes in training for careers in health care; she started there 2011. Sarita's coding generated 13 themes and there were 21 statements in all. Her top coded themes were related to *College Finance* and *Academic Preparation*.

Sarita related attending a 13-month vocational program because she had tried attending a community college but was unable to enroll in courses she needed to advance. She stated that her elder sister, with whom she was living on her couch at the time, was frustrated for Sarita and took her to the vocational school. She enrolled the same day and she stated that the school seemed "like car salesman, like once you walk into those doors, they're gonna sign you up for that private loan." Sarita stated that her parents were unable to help her academically nor especially financially. "I remember being so stressed out, because my parents had already signed off the loans to me. And they had told me that there's no money to help you with, there's no

money, there's no college fund.” These statements of financial incertitude were constant as she had no other form of income; She did not mention why employment was not an option.

Sarita indicated that getting into the nursing program and completing it was not skill-wise difficult. She mentioned that she felt prepared by her high school courses because, even though her parent’s did not get far in school and unable to help with homework, they expected them to try their best. She shared:

My parents had no way to really help me. And like in the terms of like, what can we do to it was kind of like, Hey, how are you doing in school? How's it going? It's hard, I understand. But keep pushing. You got this. That's as far as I got.

***Tatiana:***

Tatiana is general counsel for a school district in Southern California. At the time of our interview, she was on her last day with her previous employer of 20 years where they were in private practice. Tatiana attended a private, four-year university in Southern California and had since earned her Juris Doctorate out of state. She states that she is second generation in the United States with her grandparents having emigrated from Mexico. She is the second youngest of eight siblings and the youngest female. Tatiana had the most references than the other participants when it came to *External Factors* and also had high coding in the theme of *College Finance*.

Tatiana is an example of students who are very young, female, and eligible for collegiate studies. She indicated that she was accepted to a prestigious Northern California university, but that would have required her traveling 600 miles away from home. Her mother did not allow her to go and while contemplating to go anyway, she relented and stated, “Nobody left anywhere.

And my mom told me, if you go, I'm gonna report you on the run as a runaway and you'll have to come back home.” Tatiana ended up attending a college that was 12 miles away, which brought lots on factors that detracted from her studies. She shared that while in college she had one brother who died of AIDS. She also shared the difficulty in this trauma and being the one the family would turn to. She stated:

So that was really hard. And, of course, my family all came to me as the person to fix everything. So it was a little tough, but at that time, I also had a sister who tried to commit suicide, and she came to stay with me during, you know, while.. while at college, and just a lot of personal things were happening at a time.”

Tatiana was one of only five participants whose statements were coded relating to External Factors. In contrast, she was one of 14 (almost all participants) who indicated statements relating to College Finance. Indeed, Tatiana that her she received no financial support from her parents. She related that due to her requiring transportation to commute the 12 miles to school, she bought her first car at the age of 16 for \$1,000 without even knowing how to drive. She would have her siblings drive her to and fro until she was able to learn to drive on her own. Financial worries were not only felt in her undergraduate degree. She indicated that, “my parents couldn't help me. So I loans, loans, loans. Same thing with law school at a private law school, and loans, loans, loans, and especially more.”

***Tomasa:***

Tomasa is a middle school coordinator at a school district in Southern California. She has been an educator for 21 years. She started college at a private, Christian college in Southern California in 1992. Tomasa is daughter to immigrant parents from Mexico and the eldest of

three children. Her father took out money from his 401k to pay for her schooling and could be why one of her lowest coded themes was in *College Financing*. Her highest themes were similar to nine and ten other participants whose answers coded in *Access, Assistance, & Resources* and *Teacher-Mentor*.

Tomasa admits that her application for college was ill informed and she indicated that she applied blindly. She was unable to get her parent's involved with the college application process because she recalls that everything was in English and her parents did not understand. Moreover, she relates that her dad was very much a *Machista*, very domineering and assertive, and didn't want her venturing far from home. Tomasa stated that she applied to college because of a "girl who.. who I went to church with who recommended this school." She stated that she felt that information on colleges was not available to her and that more outreach would have been useful to her. She suggested that these informational programs should start as early as elementary school and that it should also include informing the parents of options.

While her path through college was hurdled, she credits making it through to individuals who gave her information and guided her path. She shared that her middle school math teacher planted the idea for college in her mind; Tomasa indicated she was:

Just helping me in the relationship that we have developed, just encouraged me, she's like, well, you should go to college. And you know, what, what is it that you're going to do when after you leave high school? And so that kind of was like, Okay, all right.

Tomasa indicates that the assistance of key agents was pivotal on not only guiding her, but in also making her feel capable of the task. She eventually transferred to a UC and completed her BA there but credits her teachers in engaging her. She commented that:

I think just the teachers, the teachers that that's helped and supported me. When I was when I was there, you just took the time to check in and just support. I think those are the biggest that's like the biggest...the biggest thing for me,

***Violeta:***

Violeta is a high school gym teacher for a school district in Southern California. She has been in education for 16 years. She started college at a private college in Southern California in 2001. She is the eldest of three children to parents from the Central Valley of California.

Violeta's comments coded equally in her top three themes of: *Family Involvement*, *Parental Expectations*, and *Privilege*.

The top KTP themes have similar interactions when it came to Violeta's preparation and experiences for college. She indicated that she was always sports oriented while in public schooling. Her mother was very involved and indeed could have been classified as an early version of a helicopter parent. As such, she was always expected to do well in school and in return she was rewarded with material items, like cars. She stated that there was never a conversation where she *would not* go to college; it was always expected. While she attended her first college, she was underage and lived in her uncle's condo while he was away as a migrant farmworker. This residence allowed her to dedicate more time to being on the college's basketball team; where she received grants to attend. Her references to privilege come not only from the educational and financial support from home, but from her status as a recruited athlete. She stated that she did not have any problems with signing up for courses she needed "because we got priority registration? Because I think it's okay, yeah, as athletes, we get priority registration. So that helped out a lot."

Violeta does not consider herself an accomplished academic. She stated that she needed to study a lot and get lots of help. Therein was another source of privilege in that athletes are assisted to maintain eligibility to play. “If you don't have a certain GPA, or you just want help, they set you up with like, tutors and things like that.” She finished our interview with making a recommendation that all students sign up for a sport in college. She stated “even if you sit on the bench, who cares, you're still gonna get priority registration.”

***Viviana:***

Viviana is a community liaison to homeless persons for the United Way in Northern California; she has held the position for two years. Viviana attended a public UC in Northern California and earned her baccalaureate in Business. Viviana is a daughter of a father who immigrated from Mexico and a mother from Southern California. Viviana related a lot in two main KTP themes: *College Finance* and *Academic Preparation*.

Viviana immigrated to the U.S. when she was a sophomore in high school. From that time she started her preparation for college. She indicated that she loved to read and early on dedicated much of her schooling to mastering the English language. She stated that she was very studious and took a lot of AP courses. Her over-concentration on language made her suffer in other areas, as she indicated:

I don't think I was really good prepared. I felt like I was Yeah, I was focusing more in learning English then actually focusing on my classes, but at the same time, have I had good grades, so but I feel like the difference between college and high school like there is a gap between...between them like, it hasn't been like, easy.

This gap that Viviana references has also been indicated in qualitative journal, the Higher Education Review, in an article by Cuellar (2014) where she indicates that “elements within these institutional contexts may differentially impact outcomes for Latina/os” (p 521). The author indicates that funding for institutions that specialize in serving this population, like HSIs, are needed because they have a positive impact on students like Viviana.

Viviana credits her college attendance to migrant programs that assist under-represented individuals with applying for college. She stated that she applied to a lot of colleges, 12+ in all, due to the program paying for some applications and some being free. The program was also beneficial in seeking out grants to pay for college. Viviana shared that to pay for college, she even before she got to college:

“I did a lot of community hours when I was a senior. So I get some grants because of that. And I also apply for federal and state grants as well. And I was able to get some of that help, which was really helpful.”

Immediately arriving at college, she started working in her freshman year through work-study and also got grants. At the end of her undergraduate studies, she is pleased that she has no loans to repay. She related that her only negative feeling related to financing her studies was, “living in, like inside the college, he was really expensive. So, I think that was only like how housing wise, he was just, I feel like that's the only problem that I find out about XX.”

### **NVivo Themes**

The data generated from the NVivo coding revealed a high quantity of participants addressing very similar experiences. The top two themes that were indicated were *College Finance* (n=45) and *Academic Preparation* (n=45), see table 9. These references were coded as such when a participant indicated comments referent to paying for college, finances needed for

books, materials, or housing, etc. Moreover, most of the participants made comments regarding these themes; 14/16 in the prior and 13/16 in the latter. The third highest coded theme was Family Involvement (n=34). These references addressed comments related to how the family was involved in the participant's life during college or the participants being needed/required to complete responsibilities in their home environment. Indeed, the top three themes generated 23% of all the references in all themes, and the top ten themes generated 51%.

**Table 10**

*Top 10 Coding Themes*

Codes	Number of coding references	Number of cases coded
Academic preparation	46	13
College finance	45	14
Teacher-mentor	36	9
Family Involvement, structure & finances	34	12
Parental Expectations	33	11
Perseverance, Resiliency & Persistence	23	10
Access, Assistance & resources	23	9
Identity	23	7
Family finances	22	10
Community College	22	10
<b>Total</b>	<b>559</b>	

*Note:* Bolded item/s indicate additional nodes added during pilot-sample.

The sixteen participants for the study represented college attendance in four institution classifications and across four decade-long periods. The participants were all asked the same 31, semi-structured interview questions with only slight variation in cadence and timing. As such, the NVivo coding process revealed key themes that were emphasized by participant responses. These nodes were identified through a combination of identification from the initial literature review for this study, the qualitative review of publications in four, peer-reviewed journals, and a

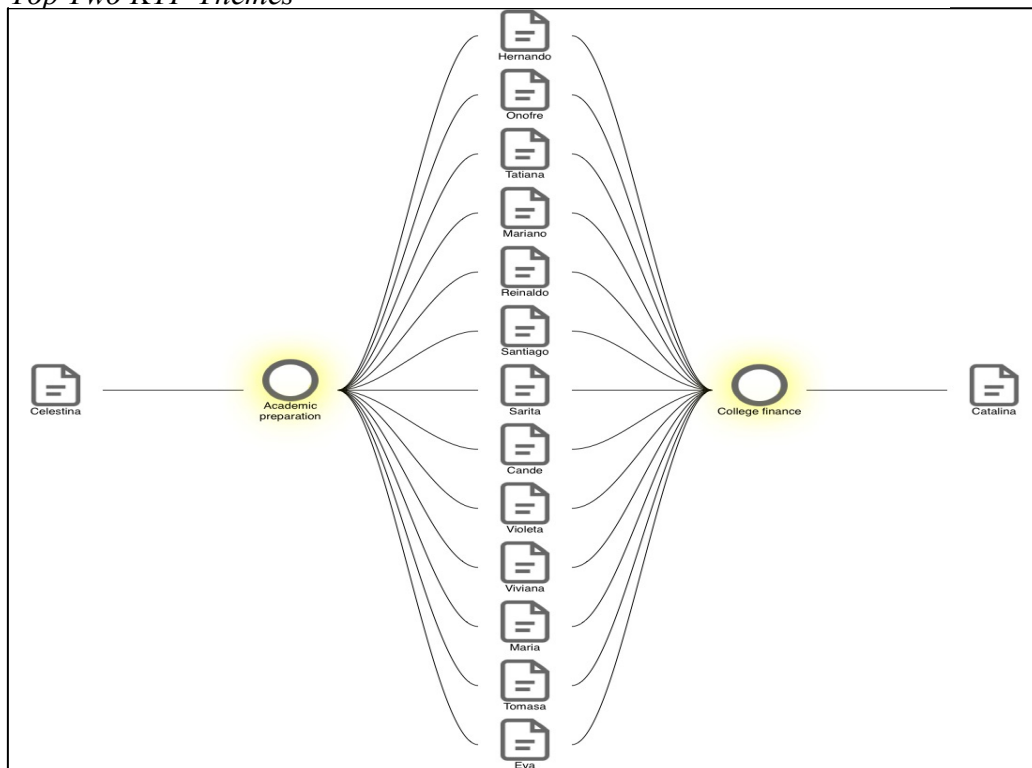


process based on the analysis of qualitative data using a narrative analysis structure. Through this process, it was revealed that 94% of the respondents addressed either *College Finance* (n=45) or *Academic Preparation* (n=46) as being most important to their experiences while in college. Reinaldo, Public/D4, coded the highest on this theme. He is representative of the 10 of 16 participants who were commuters during college. He related finances were important and chose to forgo living on campus to save money “I did one semester there. Um, one semester living on campus. But then after that, I...I decided to save the money.”

Figure 2 represents the respondents fitting the previous description and two participants who only emphasized one theme or the other. Azahara was the only respondent who did not state these two themes as majorly important.

**Figure 2**

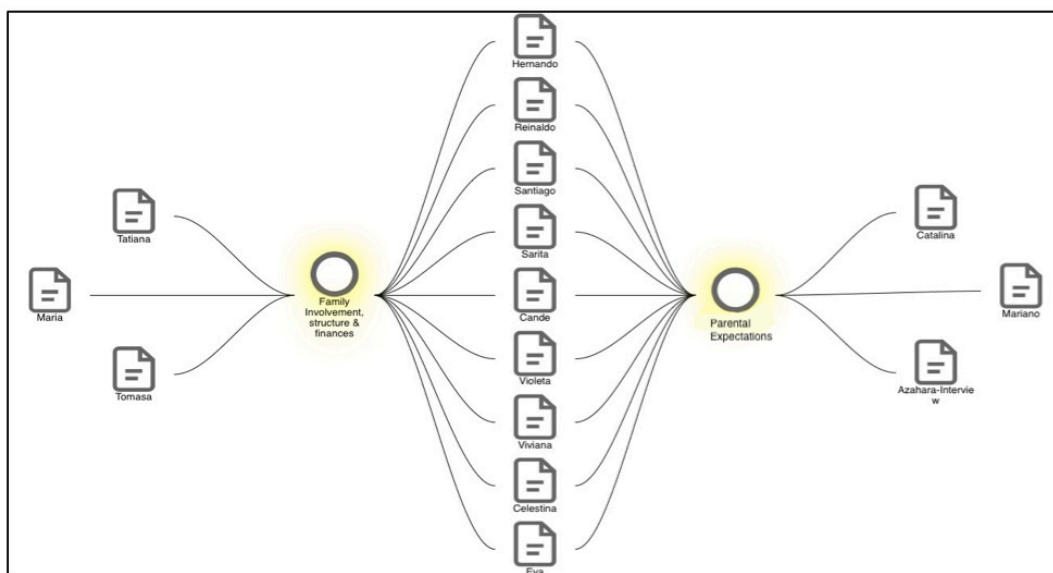
*Top Two KTP Themes*



The next two highest coded themes related to *Family Involvement* (n=34) and *Parental Expectations* (n=33). 94% of the respondents also indicated that these two themes were of major import during their collegiate experience. Here there was a little more variation, see Table 3, in which respondents characterized both with greater emphasis. The majority of respondents indicated that their family represented a source of support and of distraction. In relating to these themes, María, CC/D3, had the highest coding and indicated her father as being a reason for her feeling the need to do well in college. She stated, “My dad has always been there for me. And I mean, like I said, like I he may not have known. I don't know all the everything about my college experience. He but he... he tracked and remembered you.” She illustrated the positive role of family interactions while many indicated being distracted by family responsibilities as with Hernando (PU/D1) needing to travel home to provide cash assistance to his family or Tatiana (P/D1) needing to take care of her family’s health issues.

**Figure 3**

*Second level KTP Themes*



## Full KTP Data Results

Quantification of the four peer-reviewed journals was completed with only regard for including every article that was published in the American Educational Research Journal (AERJ), the Journal of Hispanic Higher Education (JHHE), Research in Higher Education (HER), and the Journal of Latinos and Education (JLE). Every article that was published in one of the journals' volumes was tabulated, and this process yielded a total of 5,103 articles, see Table 12. Editorial and book reviews, were not included in the tabulation as it was assessed that these published areas were meant for commentary and did not meet a scholarly purpose.

**Table 11**

*Total Phase 1 Article Dataset*

Journal	Articles
American Educational Research Journal (AERJ)	2,363
Journal of Hispanic Higher Education (JHHE)	465
Research in Higher Education (HER)	1,731
Journal of Latinos and Education (JLE)	544
Total	5,103

The phase 1 results were further analyzed using a word identification formula that was programed to an Excel spreadsheet. Phase 2 revealed articles that contained title matches with any of the Key Terms and Phrases (KTP) discussed earlier. Phase 2 narrowed the total dataset by 65.4%, and 1,765 articles remained in the dataset, see Table 13. These included any article titles that included from one to five of the KTP and thus necessitated further analysis to determine whether they related to the premise of the study.

**Table 12***Phase 1 Dataset*

Journal	Complete	Phase 1 Articles
American Educational Research Journal (AERJ)	2,363	905
Journal of Hispanic Higher Education (JHHE)	465	136
Research in Higher Education (HER)	1,731	448
Journal of Latinos and Education (JLE)	544	276
Total	5,103	1,765

Phase 2 included a visual inspection to determine the remaining articles were relevant to this study. The researcher assessed each title against a rubric of the KTP and articles with obvious irrelevance were eliminated. This included articles that touched upon teacher education, early elementary instruction, university structure and administration, and other unrelated topics of consequence to this study. Articles that contained unclear application were retained for further review. This included articles like *II* and *Along for the Ride: Best Friends' Resources and Adolescents' College Completion*. Phase 2 reduced the previous totals by 44.6% and 977 articles remained.

The final review entailed reading each of the articles to determine that they related to addressing issues of first generation students. The phase 3 review required varied levels of review. For some articles, their determination was made from reading the abstract. Others required delving further throughout the body, the conclusions, or the entire article. This process reduced the dataset from the prior by 82.2%, see table 14. These 174 remaining articles represent only 3.4% of the original dataset for all four peer-reviewed journals dating back as far as 1964. While this phase was the most time intensive, a full review of the remaining articles was necessary to establish confidence in the dataset that would be used to conduct further statistical analysis.

**Table 13**

## Final Article Dataset

Journal	Complete	1st phase	2nd phase	3rd Phase
American Educational Research Journal (AERJ)	2,363	905	697	20
Journal of Hispanic Higher Education (JHHE)	465	136	87	84
Research in Higher Education (HER)	1,731	448	84	29
Journal of Latinos and Education (JLE)	544	276	109	41
Total	5,103	1,765	977	174

The remaining 174 articles contained references to 18 of the 31 KTP themes identified. Thirteen themes resulted in no statistical units for analysis, see table 15. Several articles related to multiple topics and are reported according to each KTP. The highest indicated KTP theme was of Latino First Generation with 51 references. *College Finance* and *Cultural Capital* followed with 33 references.

**Table 14**

*Number of KTP references per journal & decade*

	AERJ				HER				JHHE				JLE			
	D1*	D2**	D3***	D4****	D1*	D2**	D3***	D4****	D1*	D2**	D3***	D4****	D1*	D2**	D3***	D4****
Academic preparation/ Rigorous academic courses																
Access/Assistance & Resources	1			1	1	2	2	3			9	8			0	0
Border living					1										1	1
College finance (paying, loans, grants, scholarships)		1		2			2	2			6	8			0	0
Community College			1		3		2	4			3	11			0	1
Cultural capital	1			3			1	1			8	17			2	7
Cultural deprivation/ Disadvantaged backgrounds	3			2			1				5	10			2	6
Culture shock											2	3			0	1
Family Involvement, Structure, & finances				1				2			1	8			0	2
Latino First Generation	3		1	3	1	1	2	3			13	19			6	20
Linguistic barriers				1	1						1				0	2
Parental Perceptions															0	2
Perseverance, Resiliency & Persistence												2			0	3
Residential/ commuter												1			0	2
Self-efficacy												2			0	1
Social capital				2				1			1	1			0	0
Summer Bridge Programs											4	3			1	1
Teacher/ Mentor				1	1						1	4			0	0
															2	2

*Note:* The following terms returned zero references: Double consciousness, Genetic inferiority, hidden curriculum, hyper-segregation, immigration, impostor syndrome, meritocracy,

non-traditional, opposing behaviors & Beliefs, poverty, privilege, re-entry, survivor's guilt

\*D1=<1990, \*\*D2=1990-1999, \*\*\*D3=2000-2009, \*\*\*\*D4=2010-2020

Articles (n=174)

These descriptives will be used to compare with the qualitative output in the following chapter.

NVivo is a statistical analysis software program regularly used to create cases for qualitative analysis. It has a powerful analysis structure that allows it to evaluate textual formats for mixed-methods examination. The study engaged NVivo to quantify the remaining text-based articles that identified the 31 KTP themes. To retrieve the most accurate data in a text-based search, the remaining article pdfs were first converted to a rich-text format (rtf). While pdfs are easily shared across platforms, they are merely images of the original document and make it difficult to edit. The article rtf files were then uploaded to NVivo. There were two types of word search related queries possible: a Word Frequency query (WF) and a Text Search query (TS). In the WF, analysis searches for all terms and quantifies their occurrence, and in TS the researcher indicated the terms to be sought and quantifies those. In this study, the identified word set for the TS was the 31 KTP. These analyses produced two variables: *% coverage* and *Number of references*.

*% coverage* was a statistical result that indicated the total percent of the content that has been coded. This measure is indicative of the extent that an article addressed issues related to the intent for the study. A high *% coverage* would indicate that the author/s frequently used terminology which was determined either in a WF or TS.

*Number of references* was calculated each time that an instance of a node is coded in the analysis of the content. The same content can produce multiple references while at the same time reporting the coding both to the node and the source. The settings for this analysis also included conjugated forms of the terms to cast a wider net in data calculations.

## Word Frequency Results

The first analysis entailed conducting a WF to search for repeated usage of terms and also in identifying themes across the content. While the default search is 1,000 terms, it was identified that 50 terms across the 4 decades would generate a substantial base for analysis. There was also a restriction selected of terms that were 5 letters or greater. This would eliminate most words used and conjunctions. The queries were separated by decade of their origin (D1=decade 1:Pre-1990 to D4=decade 4:2010-2020). These queries revealed that, across all decades, *students* (n=9,325) were of primary attention in the articles, see Table 16. Several other terms were also of high interest including: *college, educators, schools and community*.

**Table 15**  
*4-Decade Word Frequency*

Decade 1			Decade 2			Decade 3			Decade 4		
Word	#	*	Word	#	*	Word	#	*	Word	#	*
students'	1099	2.09	students	416	2.82	students	2411	2.17	students'	5933	2.10
college	895	1.71	school	201	1.36	colleges'	1842	1.66	colleges'	4263	1.51
educators	606	1.15	academic	145	0.98	educators	1281	1.16	educators	3147	1.11
schools	557	1.06	study	127	0.86	school	1091	0.98	researching	1756	0.62
variables	430	0.82	learning	112	0.76	community	701	0.63	schools'	1685	0.60
academic	377	0.72	effect	111	0.75	cultural	678	0.61	studying	1671	0.59
institutions	350	0.67	achievement	108	0.73	parents'	636	0.57	higher	1551	0.55
socializing	331	0.63	educational	104	0.71	institutions	630	0.57	academics	1432	0.51
study	332	0.63	college	98	0.66	university	588	0.53	institutions'	1411	0.50
effects	295	0.56	integration	92	0.62	studying	586	0.53	family	1351	0.48
community	265	0.51	social	89	0.60	latino	528	0.48	socially	1317	0.47
achievement	269	0.51	measures	85	0.58	stating	496	0.45	parents'	1126	0.40
model	249	0.47	model	77	0.52	higher	443	0.40	university	1077	0.38
significantly	234	0.45	hispanic	73	0.49	research	404	0.36	first	974	0.34
different	230	0.44	women	70	0.47	socially	393	0.35	supports	966	0.34
influence	226	0.43	different	67	0.45	immigrant	372	0.34	community	946	0.33
american	228	0.43	knowers'	64	0.43	experiences	371	0.33	latinos'	939	0.33
relations	208	0.40	relational	63	0.43	programs	341	0.31	experiences	924	0.33
research	207	0.39	indices	61	0.41	participation	327	0.29	mentors'	921	0.33
measuring	187	0.36	class	61	0.41	academically	322	0.29	journals	895	0.32
higher	182	0.35	epistemologies	58	0.39	supports	306	0.28	latinas'	868	0.31
level	179	0.34	sciences	57	0.39	degree	288	0.26	americans'	852	0.30
university	181	0.34	knowledge	56	0.38	campus	285	0.26	cultures	840	0.30
counseling	174	0.33	years	54	0.37	factors	283	0.26	hispanics	811	0.29
results	155	0.30	professors	53	0.36	americans'	278	0.25	models	806	0.29
integrity	155	0.30	course	53	0.36	first	273	0.25	capital	790	0.28
factors	157	0.30	experiences	52	0.35	group	272	0.25	enrolls	771	0.27
programs	150	0.29	interactions	51	0.35	level	269	0.24	participation	770	0.27



access	151	0.29	factor	51	0.35	minors	265	0.24	programs	762	0.27
transfer	152	0.29	values	51	0.35	class	256	0.23	faculty	756	0.27
faculty	140	0.27	immigrants	49	0.33	differs	254	0.23	group	723	0.26
grades	141	0.27	background	48	0.33	engagement	253	0.23	engagement	715	0.25
generation	143	0.27	instructors	47	0.32	hispanics	249	0.22	states	691	0.24
class	135	0.26	research	47	0.32	teachers	237	0.21	accessing	646	0.23
states	136	0.26	involvement	46	0.31	family	232	0.21	development	615	0.22
group	139	0.26	senior	44	0.30	enrollment	230	0.21	process'	606	0.21
spanish	129	0.25	group	43	0.29	development	229	0.21	generations	601	0.21
family	132	0.25	family	43	0.29	learning	226	0.20	graduate	600	0.21
mexican	133	0.25	thinking	41	0.28	children	225	0.20	providing	593	0.21
reported	133	0.25	participation	40	0.27	access	221	0.20	relations	587	0.21
tables	125	0.24	variables	40	0.27	ethnic	220	0.20	success	569	0.20
first	127	0.24	views	40	0.27	providing	215	0.19	learning	556	0.20
persons	127	0.24	levels	39	0.26	changing	211	0.19	different	552	0.20
track	127	0.24	reading	38	0.26	attends	209	0.19	including	537	0.19
dropout	127	0.24	behavior	36	0.24	california	207	0.19	effects	536	0.19
parents'	128	0.24	constructs	36	0.24	success	206	0.19	importantly	534	0.19
enrollments	123	0.23	important	35	0.24	including	205	0.18	informs	533	0.19
degree	117	0.22	gender	35	0.24	transfer	202	0.18	persists	501	0.18
aspirations	118	0.22	higher	35	0.24	english	200	0.18	factors	486	0.17
important	118	0.22	peers	35	0.24	courses	193	0.17	among	483	0.17

note: # = count of word, \* = total percent of the term in relation to the entire text volume.

A base numerical review of word frequencies indicates that some terms evolved across the decades in academics as exemplified by Mexican to Hispanic to Latino (D1=133, D2=73, D3=528, D4=939). Mexican was not evidenced in the top 50 for D2 and the only other reference to ethnicity was Hispanic. Latino did not begin to appear increasing attention until D3 and D4. Notably, Latina was not evident until D4 (n=868) when Gibson & Bejinez (2002) wrote on the trend of migrant Mexicans persisting in school better than their non-migrant counterparts.

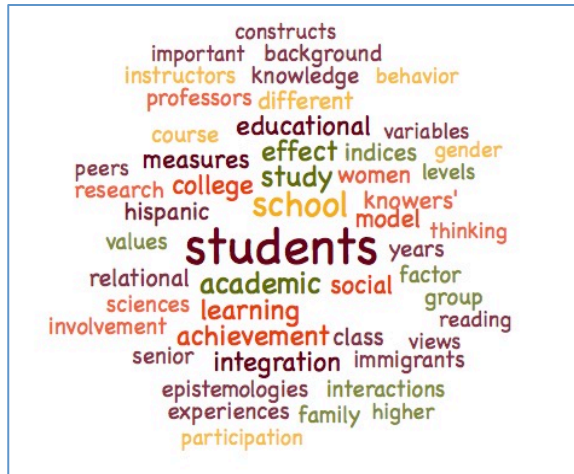
Similar descriptions can be made for the term *educator/educational*. This term populated in all four decades (Range of D1=104 to D4=3147). However, early attention sought to identify parameters that were limiting to Mexican Americans. Indeed, Anderson & Johnson (1971)(% coverage of n=1.61) conducted a factor analysis that revealed three socio-economic areas that strained the success of these students: father's educational level, the child's desire to compete with his peers, and the child's fear to meet parental expectations. D2 focused more from an external measure to an internal self-description as a learner. Baxter-Magdola (1992) had a low

% coverage (n=0.25) when she published on interviews of students and their levels of identification as active learners in college. Additionally, Vásquez (2007) contained the highest % coverage for D3 (n=2.80) when she wrote a scathing article where she criticized the *exclusivity* of higher education as related to Latino Education. She indicated that factors of cost and under-preparation yield low graduation rates. Similarly, a perception in the exclusivity of college access was at one point held in high regard. Then came a time when programs that aided under-represented students came into place and greater access was established. Now the perceptions is rising again that selective institutions may be “inaccessible, or focused on serving more *traditional* students—may be just as powerful for some students as the reality of reduced chances of being admitted” (Selznick & Mayhew, 2019, p. 414)(% coverage n=1.6). Finally; D4 is exemplified by Gonzales (2012) who also had a high % coverage (n=2.34) and made 118 references to the top 50 terms in addressing issues of Latina cultural capital. She detailed how Latinas develop a, academic work ethic due to parental encouragement from kindergarten through college. The pattern of review of the top 50 word terms can be reproduced for each term across the decades. What should also be noted is the absence of terms as illustrated by Latinas earlier. Similarly, *Latinx* is a growing term used as a pan-ethnic, self-labeling that has come to be known as gender neutral and geared towards inclusivity (Pew Research Center, 2020). In the current study, the term did not populate in the top 50 word frequencies in all four decades. The final article dataset did include 5 publications what referenced this term with a % coverage range from .02 to 1.19. A visual tree map of the top 50 word terms, See Figures 4 to Figure 7, makes a multi-decade comparison easy to identify. The terms are situated so that a higher % coverage and frequency rating corresponds to larger word placement in the figure.

**Figure 4**  
D1/Word Frequency



**Figure 5**  
D2/Word Frequency



**Figure 6**  
D3/Word Frequency



**Figure 7**  
D4/Word Frequency



### Text Search Results

Using the NVivo software, the uploaded articles were analyzed using a TS query. The terms selected were the 31 KTP identified earlier. This coverage included conjugated forms of the terms to cast a wider net in data calculations. The % coverage ranged from 2.16 to 12.78 (M=6.47, SD=2.29). The Number of references ranged from 27 to 1,330 (M=406.28, SD=232.04). Finally, this data was exported to SPSS for further analysis.

In using the quantification of published articles from peer-reviewed journals as a metric for understanding the experiences of first generation students in college, the study identified that the variable were not dichotomous. As such, it was identified that a simple linear regression would be best used. This statistical metric is used when one independent variable is being used to predict the outcome on a dependent variable (Bean, 1985; Healey, 2005).

We began earlier with a test of significance to ensure that we were following reasonable parameters in the  $h_0$  that the number of published articles will be evident across the 4-decades of research. The  $p$ -value was identified at  $<0.01$ . This level identifies a high threshold of confidence that any change in publications is not subject to random chance.

To analyze the strength and direction of the relationship between articles published and the decade of interest, a correlation was used using these two variables, see Table 17. A correlation of the totals in the number of references and decade showed a correlation of  $r(276) = .334$ ,  $p$ -value of  $<0.01$ . The relationship is positively reflected with a moderately low strength. Based on these parameters, the  $h_0$  is rejected and we can interpret that variation in publications is subject to more than a random chance.

**Table 16**

*Correlations*

		Decade	Number of references
Decade	Pearson Correlation	1	.334**
	Sig. (2-tailed)		<.001
	N	288	288
Number of references	Pearson Correlation	.334**	1
	Sig. (2-tailed)	<.001	
	N	288	288

\*\* . Correlation is significant at the 0.01 level (2-tailed).

While still trying to confirm that a relationship between the number of articles published on the experiences of Latino/a first generation students and the decade in which it was published,

a one-way ANOVA was run to test the level of variance between the means of these two variables. The results, see Table 18, indicated the number of articles published has a significant impact based on the decade of analysis,  $f(16, 271) = <0.01$ . So in other words, the amount of interest as reflected by publications in peer-reviewed journals has a significant bearing according to parameters relevant to the decade of publication.

**Table 17**

*ANOVA*

Decade	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	83.272	16	5.205	5.097	<.001
Within Groups	276.728	271	1.021		
Total	360.000	287			

The study's statistical analysis goal was to create a prediction equation that permits the explanation of one dependent variable based on the knowledge of one independent variable. A simple linear regression was calculated to predict the number of publications based on the decade of analysis, see Table 19 & 20,  $b = .34$ ,  $t(286) = -2.87$ ,  $p < .001$ . A significant regression equation was found ( $F(1, 288) = 35.966$ ,  $p < .001$ , with an  $r^2$  of .112. While the  $r^2$  is positive, it leaves a large percent without an explanation of the cause for variation on the number of articles published per decade.

**Table 18***Model Summary<sup>b</sup>*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					
					R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.334 <sup>a</sup>	.112	.109	2.99679	.112	35.966	1	286	<.001	1.342

a. Predictors: (Constant), Decade

b. Dependent Variable: Number of references

**Table 19***ANOVA<sup>a</sup>*

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	323.003	1	323.003	35.966	<.001 <sup>b</sup>
	Residual	2568.497	286	8.981		
	Total	2891.500	287			

a. Dependent Variable: Number of references

b. Predictors: (Constant), Decade

## **Chapter 4 Summary**

The research question for the quantitative portion of the study was answered by the results obtained from the data analysis via SPSS. The first-generation research participants in the study provided a qualitative insight into their experiences and illuminated some of the themes identified. The mixed methods approach melded what was understood from scholarly publications on these students and added a name (pseudonym) with personal triumphs and struggles.

Chapter 5 provides a summary and discussion of the research study results and conclusions based on the results, comparison of findings with the theoretical framework and previous literature, interpretation of the findings, limitations, implications of the study, recommendations for future research derived directly from the data, research design, or other limitations, recommendations based on limitations, and a conclusion will complete this chapter.

## CHAPTER 5. DISCUSSION, IMPLICATIONS, RECOMMENDATIONS

### Summary of the Results

The intent of this study was to first identify that there was variation in the amount of attention given to the experiences of Latino/as who were first in their families to attend college. This demographic has received a “woefully” low amount of attention when it comes to academic research (Gandara, 2015). Indirectly, this research sought to quantify that statement; at least in part beginning with an evaluation of four peer-reviewed journals. It is believed that the process of publication goes hand in hand with two monikers of higher education. One is that in the professoriate, you must *publish or perish* for both personal financial and professional reasons (Schuster & Finkelstein, 2006). This process leads to professor/researchers addressing issues of interest and, one would assume, also of changes that they encounter on campus. The second point is that students and education are seemingly cyclical. The more students there are then the more interest in providing resources, instructions, remediation, etc. Conversely, less students demands reflection, modification, and/or elimination.

This study approached understanding what evidences themes were present in each decade that informed researchers to address the study’s demographic. Moreover, personal encounters with pertinent themes were made concrete with the inclusion of personal insights. Indicative of this was María’s (CC/D3) sharing that at the beginning of her academic career and struggling to find her footing, a college professor gave her a book that indicated to her that she was a valuable part of the community. This coincides with the publications by Laura Rendón (2011, 2019) on validation theory.



As of 2011, first generation students in college student make up nearly 50% of the student population, yet are still at risk (Choy, 2001; Garcia & Mireles-Rios, 2020; Mehta et al., 2011, Ryan & Ream, 2016).

Gandara (2015) reported Mexican American females, from immigrant families, tend to be underprepared for college because they don't feel like they belong in their high school setting. This is also true for this special population of students who are usually the first individuals in their family to attend college (Pike & Kuh, 2005). Mendez & Bauman (2018) reported that first generation student's high school GPA correlated with their college GPA and that financial aid in the for of grants correlated / HS GPA Correlated with feeling of integration.

Several themes emerged from the transcribed and coded qualitative interviews reported in the previous chapter. The themes were related to two main areas: Preparation for college and College finance. Almost all participants related both positive and negative comments related to each. When juxtaposed with the quantitative analysis, there was congruence on some of the themes related to the integration of students into the college environment.

### **Discussion of the Results**

Both the quantitative and qualitative portions of the study have yielded key insights in the evaluation of what has been published in peer-reviewed journals and about first generation students through a retelling of their lived experiences. These are powerful reflections of the interest academia places of addressing the needs of this growing population. The focus on four peer-reviewed journals sought to assess a representative source of information that may feasibly be transformative is policy and process for the underserved population of students who are first

in their families to attend college. The analysis on the KTP frequencies was revealing in that there is a proportional increase in the articles that address *teachers/mentors*.

Almost every participant related stories where mentors, teachers, or whichever related term aided them, in some form or fashion. Eva, now a teacher, related one of her teachers seeing something in her and a comment guided her future “I see how you work with other kids that need help. I think you should look into becoming a teacher, you will be in that kind of stayed with me.” This is also emphasized in the mild increase in publications that touch upon that node; a doubling of units in the last two decades.

As noted in the previous chapter, *College Financing* was the number one topic addressed in both methods of analysis. Fifteen of sixteen participants indicated some attention was made in regards to how to finance their schooling. Either done by working multiple jobs, as indicated by Hernando and Reinaldo, or in relying heavily on loans as with Santiago and Tatiana’s comment “and loans, loans, loans.” Publications reveal similar patterns in attention and evidenced by a ten-fold increase in references between articles published prior to 1990 versus article published between 2010 and 2020 (4 vs 41).

Similarly, the quantification on the node of *Latino first generation* has seen an almost 5-fold increase in units across between the first two decades and the last two (13 to 58). While there is no qualitative measure to compare this to due to all participants being recruited due to this trait, it can be interpreted that the mere premise of this research accentuates that increased attention being placed on the demographic.

Most reveling in this research is the change in terminology in addressing students of Latin/American descent reported in chapter 4. This populations has a problem with self-labeling due to the amalgamation of numerous regionally, culturally and sometimes even linguistically

different people. Beltrán (2010) indicates that historically there has been a trend to homogenize identity and that even in that process there is difficulty due to the fact that it, “obscures rather than clarifies the various social and political experiences of more than 23 million people citizens” (p.108). The study indicated that the ethnic term of Mexican and Hispanic were used in the literature 455 times in the first two decades as compared to a seven-fold difference in the terms of Hispanic, Latino, and Latina in the last two decades (n=3146). Hernando (Pu/D1) stated he had difficulty with identifying his ethnicity. He indicated this in regards to his current project to write his memoirs. He stated, “I need to write, you know, about the difference between the Chicano experience the Mexican experience, you know, because I went to college, and I tell my kids, I was 100% Mexican.”

### **Conclusions Based on the Results**

Sixteen Latino/a subjects participated in the study to ascertain their experiences as first in their families to attend college. The participants represented all four types of college distinctions (public, private, community college, and HBCU/HSI) as well as representing attendance within each of the last four decades. Their stories affirmed the literature on various topics and herein identified at the decade level. The first decade included themes relevant to the identification of the Latino/a learner. This was evidenced with articles that focused on understanding variance between first generation students and the non-first generation counterparts (Anderson & Johnson, 1971; Bean, 1985; Peng & Fetters, 1978). This was supported by comments from Hernando (Pu/D1) in relating an understanding for dropping out as, “I could complain and you know, and because I would you know, kids like, Oh, don't have money. My parents are not giving me any more. I'm gonna drop out. Get a job.”

The second decade (D2, 1990-1989) was informed by articles related to external factors and their implication for the concept of self. This is evidenced with Barbara Kraemer's (1997) article on *The Academic and Social Integration of Hispanic Students into College* where she wrote on three constructs to increase persistence using three criterion. Eva (CC/D2) touched upon this theme where she felt that a professor's intent to engage her with political commentary worked in the reverse due to him not validating her experience. She stated, "I don't know, I was just another student. I'm just another just another girl, another student."

The last two decades have a commonality wherein articles are indicative of social integration, empowerment, and making institutional changes to that end. Amaury Nora's (2004) article *The Role of Habitus and Cultural Capital in Choosing a College, Transitioning From High School to Higher Education, and Persisting in College Among Minority and Nonminority Students* is indicative of focusing on personal traits to accomplish tasks. She wrote of psychological dispositions that increased persistence. María (CC/D3) related her need to be mentally focused on her studies and the toll that it took. She commented that she needed support from her cohort as, "there's so much that we're kind of self reliance on. And it takes a lot of energy, you know, which is why I think it's, I think it's so with that group with Wednesday and with, you know, the friend groups that I made we...we were constantly gassing each other up." These stories, laid side-by-side with the decade's results, indicated where the two validate each other and clarify themes that are pertinent to first generation college students.

## **Comparison of Findings with Theoretical Framework and Previous Literature**

Theories addressing socio/background factors (Fry, 2011; Choy, 2001; USDE-NCES, 2000), persistence (Choy, 2001; Rendón, 1992; Tym, 2004), pre-collegiate characteristics (Fry & Lopez, 2013; Gandara, 2011; Pryor et al., 2007), early outreach programs (Chen, 2005; Cooper et al., 1995; Watt et al., 2007), the first year experience (Bettencourt et al., 2020; Mendez & Bauman, 2018; Pascarella & Terenzini, 2005) and others framed the study.

Qualitative themes supported literature that addresses financial concerns and the availability of financial aid of major importance (Paulsen and St. John, 2002). As indicated earlier, several participants indicated their having made it through college as highly correlated with assistance in the form of grants or loans.

Patterns and adjustment were also supported with the coded interviews. This was indicated in the research that addressed students establishing their social networks as a mechanism for integration to the college environment (Easley, Bianco & Leech, 2012; Prospero, Catherine Russel & Vohra-Gupta, 2012). This was evidenced with Cande and Viviana indicating that they both had joined the campus women's rugby club in their freshman year. They related that the members were a source of support when they encountered difficulties. Viviana commented that, "I always tell about rugby. Yeah, that's, that's what make my college experience. Great."

In sum, a mixed methods approach to identifying latent patterns in publications can be affirmatively supported with statements of lived experiences from subjects who were affected by the published research. Such a process of dual confirmation can give strength to the findings.

### **Interpretation of the Findings**

In 2008, Latinos living in the United States numbered 46 million (US Census Bureau, 2019), and by 2050, they are projected to be 138 million (Sosa, 2012). By 2030, Latinos are expected to be the majority of elementary and high school students (Martinez & Aguirre, 2003 in Sosa, 2012). With these large numbers, there is also vast under preparation of this demographic. Latino high school students are not ready for collegiate studies and are especially lacking in English and Math skills (Bettencourt et al., 2020). The current study illustrated that this is one area that has not changes across the decades. The research revealed that academic preparation was a number one area in which the participants expressed concern. Hernando (Pu/D1) expressed this apprehension with “I almost ended up getting kicked out because, you know, academic.” The quantitative results also indicated that academic preparation, as well as the topic of rigorous courses, was an area of research interest in academic journals. This leaves the area of student preparation open for further improvement.

Current programs of collegiate preparation like AVID and PUENTE use an approach of exposure to prepare students with what they will encounter in college classrooms (note-taking skills, Socratic questioning techniques, college campus visits, etc.). Interpretation of the study’s findings supports improving collegiate readiness programs by re-envisioning their application. College presence on public campuses may be more engaging for students who only have limited exposure to a collegiate environment. Colleges may implement a program of *adopting* local or feeder schools and

have a regular presence on campus. Middle and high school students can have more regular opportunities to engage in the mindset of seeing themselves as college ready.

### **Limitations**

The study met with multiple levels of limitations from concept, to execution. Five areas will be addressed here. First, a factor relating to generalizability is recognized in that the focus here was with four journals. No attempt was made to identify how many journals were available and number that would have been required to meet saturation.

Next, the study is premised on a hypothesis that what is published in peer-reviewed articles is a reflection of a current vein of research interest. The study was a comprehensive review of *all* issues from the four publications that were identified for review for this study. Inasmuch as all published articles in said publications were reviewed, there were some sections of particular issues that were not entertained. Certain publications contained publisher remarks that were untitled and as such did not satisfy a first level analysis with identified search terms for this study. This exclusion of topic discussed in the selection did not compromise the intent of this study; which was to address the areas of research interest as published on the experiences of Latino first generation students who went to college.

Third, all four publications reviewed for this study varied in length and content from one issue to the next. Some issues included reviews of recently published books pertinent to the scope of their publication interests; Education. These book reviews were eliminated from the analysis for this study in that they addressed an editorial review and were not approached in a scholarly fashion. Editorial reviews were not included in the data sets when there was no extension of the topic being discussed. Editorials with subject titles were included as any other Journal entry.

Interview transcriptions were edited for interruptions and some sections were garbled. These omissions may have been revealing to the intended response of the respondent. While every effort was made to clarify these blanks, success was not always accomplished.

Lastly, while the premise of the research was to cover 4 decades worth of articles, D1 contained articles that were published prior to the D1 parameter of 1980. This was done to adhere to the primary study premise to compile all articles from its inaugural issue and ending in December, 2020. Further analysis of this over-inclusion may reveal significance to invalidate the findings, but this was not addressed herein.

### **Implications for Practice**

Academic institutions regularly identify, assess, and modify their policies to best address the needs of their population. These are students who span the gamut of description and distinction that may affect their matriculation through a collegiate program. Students who are first in their families to attend college bring with them particular needs for support that cannot go unaddressed by the institution. Research summaries of publications in academic journals can identify the traits of learners identified as first-generation. The synthesis of the current research may be used to facilitate the aforementioned policy review, and/or create new directions in institutional priorities to guide Latino/a first generation students through the collegiate journey to degree completion.

The findings and synthesis of the current research may have implications for academics at various stages. Outcomes from the research may aid college and university administrative professionals to modify outreach methods to reach qualified applicants who fall into a group that prioritizes staying close to home and helping the family through working after their high school



graduation. Such outreach may take the form of recruiting officers attending community events that gather families together in a social context (i.e.: city-sponsored family nights or farmer's markets). College recruiters may identify the need to outreach to qualified, non-traditional students through incentivized attendance events in fact that these students who have limited time; recruiters can give free dinners or gift cards to those who attend. Recruiting discussions may address the premise of the benefit of helping the family financially with the augmented salary that a college degree may bring a college graduate (Porter, 2002).

Colleges and universities may use the findings in this research to note that a cyclical nature may be evident and trends in the identification and/or priorities of Latino/a first generation students may arise again; as in a previous decades' development. Moreover, collegiate senior management may use the findings to allocate parts of their funding in a more targeted process and one that specifically addresses a changing demographic of students in the educational pipeline. As such, partnership programs with feeder k-12 districts can be identified to be of particular importance and a source for funding allocations. Academia may benefit from the study in that a comprehensive review of what is being studied can prepare academic institutions, and student alike, to be better prepared for changing recurring negative trends, like under-preparation for students who will be first in their families to attend college (Gandara, 2015).

The results of this study could be useful in developing a comprehensive document on best-practices protocols for increasing degree attainment for Latino/as seeking to be the first in their families to complete college. While this was not done in the present, the task can be easily extracted from both the review of pertinent literature contained here and the results of the KW and TS results; as well as the themes that were obtained from participant responses. The final product should include recommendations that may encumber policy from middle school through

university.

### **Recommendations for Further Research**

There is no research that addresses a meta-analysis approach across complete volumes of peer-reviewed research. While an automated review as a Google Scholar searches may yield a significant amount of data, a nuanced review that is privy to reflective acknowledgement stand apart. The study addressed a vast quantity of articles across four journals to generate confidence that all units were considered related to Latino/a students. The study reached only a starting point in complete analysis of the data. Further studies may continue with identifying and coding variables that may be used in a multivariate analysis. This process may lead to a stronger, positive correlation and reduce the unexplained portion of the  $r^2$ . Moreover, expanding the research to other journals may accomplish a similar result.

### **Conclusion**

Understanding the changing population of the college-going student necessitates a review of previous conditions to which they were exposed. A review of research on the experiences of first generation students in college is a necessary action. Self-reflection leads to an understanding and conviction to continue a process; or to redirect the flow of intent. A guiding principle of the current review was that conditions that were evident in the past 40 years of experiences of this demographic of students has improved in minute forms, but the conditions that prompted the need to investigate the status of the college population in the first place has not been eliminated. Unequal access to quality academic programs continues to elude a great deal of students who are unprepared for the rigors of collegiate study. School segregation is quite evident when we consider the super-saturation of minority and first generation students who

attend community colleges (Gonzalez, 2011). The evidence from public education on the academic preparation of high school students is quite clear. Past trends of increasing immigrant populations, high dropout rates (especially in the inner cities), and the eroding fabric of family support for academic achievement seem to be mainstays of the applied academic life. Our K-12 teachers are tasked the Sisyphean role of preparing students for the next generation of academic study and societal labors. If we are to grow as a society, we cannot allow ourselves to repeat the errors of our past. It is improbable, with our evolving process of legislating educational equity, that entire groups will be impeded in attaining what they work towards. However, much work still remains to unveil the lessons learned through the improvement of the American educational process. Our descent in international standings is merely an opportunity to excel once again.

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# Email Introduction

Topic: First Generation Latino Students in College  
Researcher: Ted Campos

**Subject Line:** Your College Experience Interview

**Email Body:**

Dear Friends, Colleagues, and Fellow First-Generation College Graduates;

I hope that this email finds you well during our current COVID-19 pandemic. I am reaching out to you to gather participants for a Doctoral research study on the experiences of Latino/as who were first in their families to attend college. I am looking for participants who began college in the last four decades. I will select participants who attended Community Colleges, Public and Private Universities, or HBCUs/HSIs.

I hope that you will consider volunteering for this project that will entail a virtual interview that may take about 30 minutes to 1 hour of your time, and it can be scheduled at your convenience. The first step to reply with your interest to this email and I will send you an Informed Consent Form for you to sign. I will then contact you with the Participant Intake Form and to answer any of your questions about the study. The final step will be conducting the virtual interview at the time and place (virtual forum...Zoom, Google Meets, Teams, etc.).

If this email does not apply to you, perhaps you will consider forwarding it within your network to others who may qualify.

Regards,  
Ted Campos, Principal Investigator  
Claremont Graduate University  
(909) 213-3394





## APPENDIX B. [Intake and Informed Consent Signature]

# Email: Informed Consent

Topic: First Generation Latino Students in College  
Researcher: Ted Campos

**Subject Line:** Your College Experience Interview

**Email Body:**

Dear TBD;

Thank you for your interest to participate in this doctoral research study on the experiences of Latinos who were first in their families to attend college. Attached to this email, you will find the study's Informed Consent form. Please review the document and if you have any questions, please let me know. Once all of your questions are answered, please sign the document and send it back to me. Additionally, I have attached the Participant Intake Form for you to complete and return to me. These documents will be kept on file until the completion of the study, and then they will be erased according to Claremont Graduate University's IRB protocols.

Thank you again for the offer of your time and experience.

Regards,  
Ted Campos, Principal Investigator  
Claremont Graduate University  
(9[REDACTED]) 213-[REDACTED]

**Attachments:**

- Informed Consent Form
- Participant Intake Form

# Email: Participant Non-Selection

Topic: First Generation Latino Students in College  
Researcher: Ted Campos

**Subject Line:** Your College Experience Interview

**Email Body:**

Dear TBD;

Thank your interest to participate in this Doctoral research study on the experiences of Latinos who were first in their families to attend college. Based on positive response to the email, I have identified the needed participants for this study. I will keep you information on file until the completion of the study, and then it will be erased according to Claremont Graduate University's IRB protocols.

Thank you again for the offer of your time and experience.

Regards,  
Ted Campos, Principal Investigator  
Claremont Graduate University  
(909) 213-3394

# Email: Setting Up Interviews

Topic: First Generation Latino Students in College  
Researcher: Ted Campos

**Subject Line:** Your College Experience Interview

**Email Body:**

Dear TBD;

Thank your consent to participate in this Doctoral research study on the experiences of Latinos who were first in their families to attend college. Based on your signed Informed Consent document and the Participant intake form, you have been selected to participate in the interview portion.

The virtual interview will take about 30 minutes to 1 hour of your time. Please respond with your preferences below so that I can schedule a convenient time for you.

- Virtual Method:  
 Zoom       Google Meets       Microsoft Teams       No Preference
  
- Day of the week:  Mon.    Tue.    Wed.    Th.    Fri.    Sat.    Sun.
  
- Preferred hours  
 Mornings (8 am to noon)                       Afternoon (noon to 4 pm)  
 Evening (6 to 8 pm)                               Specific Time: \_\_\_\_\_

I will be in contact with an identified date and time. I will also send any login codes for the program. If the mentioned details are unsuitable, please contact me and I will reschedule.

Regards,  
Ted Campos, Principal Investigator  
Claremont Graduate University  
(909) 213-3394



## APPENDIX E. [Informed Consent]

### AGREEMENT TO PARTICIPATE IN FIRST GENERATION STUDENTS IN COLLEGE: A FOUR-DECADE REVIEW OF THE LITERATURE (IRB#3810)

You are invited to be interviewed for a research project. Volunteering will probably not benefit you directly, but you will be helping us explore the experiences of students who were first in their families to go to college. If you volunteer, you will be asked to participate in a virtual interview. This will take about 30 minutes to one hour of your time. Volunteering for this study involves no more risk than what a typical person experiences on a regular day. Your involvement is entirely up to you. You may withdraw at any time for any reason. Please continue reading for more information about the study.

#### STUDY LEADERSHIP.

This research study is led by Ted Campos, a PhD candidate at Claremont Graduate University who is being supervised by Associate Professor of Education, Dr. Linda Perkins.

#### PURPOSE.

The purpose of this research is to gather information that has been published on the experiences of first generation students in college over the last 4 decades of academic publication. While Latino first-generation students have been referred to in some form or fashion in academic, peer-reviewed publications since post WWII, there has been no systematic review of all the published works that address their contributions to the academic landscape. Moreover, there has been no source for identifying variations in definition, arrangement, or policy regarding first-generation students. This research will begin to identify the various themes that have emerged across the decades of academic research on this significant group of college students. This study will review elements that have come from four academic journals on higher education over the last four decades, and it will also highlight personal experiences from first-generation students in college. The outcome will be to generate recommendations to educational institutions on better serving this growing population.

#### ELIGIBILITY.

To be in this study, participants must have been the first in their families to have attended college as a first generational student within the specified decade of interest. The study's target population will be 16 participants; the point of saturation to meet study criterion of first generational students who attended institutions of the following types: Public, Private, Community, and HBCU (Historically Black Colleges and Universities) or HSI (Hispanic Serving Institutions).

#### PARTICIPATION.

Participants will be asked to participate in an interview process for data gathering. The interview will take about 30 minutes to 1 hour. Participants will have the choice of participating in the interview via a face-to-face process, or to adhere to State mandate Covid-19 distance recommendations, they may elect to schedule a virtual meeting via a digital format (i.e.: Zoom,

Microsoft Teams, etc.). Participants will be asked to respond to semi-structured interview questions. Example of the questions is as follows:

1. What is your overall impression about your collegiate experience?
2. What do you remember about when and where you attended college?
3. What were the circumstances around you deciding to attend college?

Full list in Attachment 3.

### RISKS OF PARTICIPATION

The risks that you run by taking part in this study are minimal. This study will include touch on first hand recollections of students whose first generational experiences occurred during an identified timeframe. Participants will share personal experiences of their collegiate interactions during their undergraduate studies. Study participants will have the benefit of privacy at every stage of the interview process. Study participants will only be identified in print and audio recording using their coded reference number. The interview process will allow participants to offer as much, or as little, input as they deem comfortable. An open-discussion format may allow participants to share experiences that are deeply personal, poignant, or that may have had scarring results of their collegiate years. The risks include sharing personal experiences, either deliberate or accidental, may have harmful consequences on the participant; participants may experience psychological discomfort due to remembering or divulging traumatic collegiate experiences. The analysis software (NVivo) will include entering participant demographic data, but identification markers will only include their coded reference number. This procedure will assure that results and any discussion in the study summary will not expose participant names and possibly expose them to the effects of connecting statements to any individual.

### BENEFITS OF PARTICIPATION.

I do not expect the study will benefit you personally. This study is intended to help advance the understanding of the experiences of students who were first in their families to attend college. This study will benefit the researcher by enabling him to publish results in scientific journals and conferences, and develop new studies based on the results. These results and others like them might be used to develop effective policies so that collegiate attendees may benefit fully from an engaging and receptive environment.

### COMPENSATION.

There is no direct compensation to you for participating in this study.

### VOLUNTARY PARTICIPATION.

Your participation in this study is completely voluntary. You may stop or withdraw from the study at any time, or refuse to answer any particular question for any reason, without it being held against you. Your decision whether or not to participate will have no effect on your current or future connection with anyone at Claremont Graduate University, and we will not mention this to anyone outside of the research team.

### CONFIDENTIALITY.

Your privacy and confidentiality will be protected in all papers, reports, talks, posts, or stories resulting from this study. We will not share any information we collect from an interview with you. We may share the data we collect with other researchers, but we will not reveal your identity with it. In order to protect the confidentiality of your responses, we will separate your personal identifying information from all other information we collect, in which we will identify your data only by a code number that will serve as your initial temporary ID. All project information will be stored on password- and firewall-protected computers, or in locked filing cabinets behind locked doors. We will destroy all the identifying information we have about you within three years of completion of the study, keeping only anonymous, numerically coded data files that will be used only for research purposes.

FURTHER INFORMATION.

If you have any questions or would like additional information about this study, please contact Ted Campos at [Teddy.campos@cgu.edu](mailto:Teddy.campos@cgu.edu), or 909-213-3394. You may also contact Dr. Linda Perkins, Associate Professor of Education, at [Linda.perkins@cgu.edu](mailto:Linda.perkins@cgu.edu), or 909-621-8075

The CGU Institutional Review Board has certified this project as exempt. You may contact the CGU Board with any questions or issues at (909) 607-9406 or at [irb@cgu.edu](mailto:irb@cgu.edu). This survey has been certified as exempt from Institutional Review Board coverage. A copy of this form will be given to you if you wish to keep it. You may print and keep a copy of this consent form. **OR** If you wish, I will be happy to send you a copy of this consent form.

CONSENT.

Your signature below means that you understand the information on this form, that someone has answered any and all questions you may have about this study, and you voluntarily agree to participate in it.

Signature of Participant \_\_\_\_\_ Date \_\_\_\_\_

Printed Name of Participant \_\_\_\_\_

---

The undersigned researcher has reviewed the information in this consent form with the participant and answered any of his or her questions about the study.

Signature of Researcher \_\_\_\_\_ Date \_\_\_\_\_

Printed Name of Researcher \_\_\_\_\_

# Participant Form

Topic: First Generation Latino Students in College  
Researcher: Ted Campos

1. Name:

\_\_\_\_\_

2. Are you of Hispanic/Latino descent?      Yes  No

3. Undergraduate college attended: \_\_\_\_\_

4. What type of college did you attend?

Public     Private     HBCU     HSI     Community

5. What year(s) did you attended: \_\_\_\_\_

6. At that time, did you have any family members attend college?

\_\_\_\_\_

7. What type of housing did you have?

On Campus       Off Campus       At home       Other

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Research Notes

# Research Study Questionnaire

Topic: First Generation Students in College: A Four-Decade Review of the Literature  
Researcher: Ted Campos

1. Please tell me about your family background.
2. Describe your cultural background.
3. Tell me about your academic background.
4. What is your current employment status/position and how long you have held it?
5. [If needed...] Where did you attend for undergraduate studies?
6. What was the area like where you grew up?
7. Explain how your family was involved in your decision to attend college and once you began classes.
8. How did your family help you prepare for college?
9. While in college, how did you maintain contact with your family?
10. What emotions, related to your family, did you have while in college?
11. What was your process in applying to college?
12. Describe the type of college you attended and what went into your decision to attend there?
13. Were there any issues related to staying in college?
14. How did you pay for college?
15. At the completion of college, how would you describe your choice to attend there?
16. How did you fit into the total landscape of your college?
17. Describe how the college assisted you while you attended there?
18. Who were special people, programs, or resources that assisted in your college attendance?
19. How did you select you college of attendance?
20. What is the earliest you recall that you started to prepare for college attendance? And Why?
21. Describe how prepared you were for the subject matter in your college courses.
22. Tell me about the rigor of your high school courses and how this affected your college academics.
23. Describe a typical interaction with your college peers.
24. What sort of activities were you involved with while you were in college?
25. What aspects of you college campus made you think about your right choice in attending [college name]?
26. Were there any societal events at the time you attended college that affected your schooling? If so, how?
27. What stands out the most about when and where you attended college?
28. What circumstances during your time in college would not have been present for other generations of college students?
29. How have you changed because of your undergraduate degree?
30. What was your first year like as you attended college; what sticks out in your mind?
31. Finally, if you had a relative that was to attend college in a similar situation as you, what would you advise them for their first year?



## APPENDIX H. [List of Peer-Reviewed Journals Query]

### University Libraries

#### Higher Education & Student Affairs: Peer-Reviewed Journals

- American Educational Research Journal
- ASHE Higher Education Report (2005-present)
- ASHE-ERIC Higher Education Reports (2001-2004)
- College Student Affairs Journal
- College Student Journal
- Community College Review
- Educational Evaluation and Policy Analysis
- Educational Gerontology
- Educational Policy
- Educational Researcher
- Higher Education
- Higher Education Quarterly
- Innovative Higher Education
- Journal of College and University Student Housing
- Journal of College Student Development
- Journal of Higher Education
- Journal of Hispanic Higher Education
- Journal of Student Affairs Research and Practice (Formerly NASPA Journal)
- NASPA Journal
- Research in Higher Education
- Review of Educational Research
- Review of Higher Education
- Review of Research in Education
- Studies in Higher Education

## APPENDIX I. [NVivo Codes- KTP]

Codes	Number of coding references	Number of cases with code
Academic preparation	46	13
College finance	45	14
Teacher-mentor	36	9
Family Involvement, structure & finances	34	12
Parental Expectations	33	11
Perseverance, Resiliency & Persistence	23	10
Access, Assistance & resources	23	9
Identity	23	7
Family finances	22	10
Community College	22	10
<b>Fitting in</b>	21	10
Immigration	20	12
Linguistic barriers	16	10
Parental lack of knowledge	16	6
Disadvantaged backgrounds	15	8
Rigorous academic course	14	10
Positive culture	14	8
<b>Religious</b>	13	8
External factors	13	5
<b>Difficulty engaging in college</b>	13	4
Privilege	11	6
Residential-commuter	9	7
Latino First Generation	9	4
Double consciousness	8	4
Summer Bridge	8	3
Cultural capital	7	2
Cultural deprivation	6	5
Culture shock	5	4
Imposter syndrome & Self-doubt	5	4
Self-efficacy	5	3
Social Isolation	5	3
Poverty	5	2
Survivor's guilt	4	2
<b>Latinas stay home</b>	3	3
Hidden curriculum	2	2
Hyper-Segregation	2	2
Social capital	2	1
Meritocracy	1	1
Border living	0	0
Genetic inferiority	0	0
Non-traditional	0	0
Re-entry	0	0
<b>Total</b>	<b>559</b>	

*Note:* Bolded items indicate additional nodes added during pilot-sample.

**APPENDIX J. [Methodological Design]**

**Analyze & Conclude Prepare, Collect, & Analyze Define & Design**

