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THE IMPACT OF THE EDUCATIONAL OPPORTUNITY FUND PROGRAM ON FIRST-GENERATION LATINO STUDENT RETENTION--A MIXED METHODS

APPROACH

by

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ABSTRACT OF THE DISSERTATION

The impact of the Educational Opportunity Fund Program on first-generation Latino student retention: A mixed methods approach

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The continuous growth of the Latino population poses significant challenges for the country as the level of education for Latinos is significantly lower than their white counterparts. An increase in Latino student retention rates in higher education can combat poverty among Latino communities and ultimately impact the country, provided a higher portion of the population is educated. Using a triangulation approach, the Educational Opportunity Fund (EOF) program is reviewed to test its effectiveness retaining firstgeneration Latino students in colleges. First-generation Latino student retention from 2007 to 2017 was evaluated at three universities in New Jersey using a descriptive analysis, including chi-squared tests and an analysis of variance among the three universities, a statistical analysis of original survey data, and a logistic regression model of both descriptive and survey results. This research found that first-generation Latinos in the EOF program were retained at higher rates than first-generation Latinos not in the EOF program. However, high school GPA is the highest pre-college predictor of retention among first-generation Latinos and, ultimately, the largest motivators for persistence in college were having family, mentorship, and a community/friends.

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Keywords: EOF, educational opportunity fund, first-generation Latino, retention, poverty, lowincome, first year retention, second year retention, remedial courses, developmental courses, Hispanic, triangulation

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Chapter 1

INTRODUCTION

The most urgent threat to the American education system is the disproportionate resource allocation based on the exponential Latino population growth. Latinos are the most rapidly growing ethnic minority in the country and are also the least educated. In order to focus on national growth and sustainable community development, there needs to be a substantial national shift in focus to Latino education.

As a Latina working in higher education and the first in my family to attend college, I have witnessed firsthand the growing numbers of Latino students in colleges and universities and the increasing struggles these students face to stay in college and ultimately graduate. Many experts today are motivated and concerned by the fact that low-income Latino students are the first in their family to attend college (commonly referred to as first-generation) and, because their parents did not attend college, they may lack the critical cultural capital necessary for college success (CFGSS, 2018).

Although there are more first-generation Latino students enrolled in colleges and universities than ever before, graduation rates for Latinos are less than 15 percent (Pew Research Center, 2018). This statistic demonstrates that higher education institutions are struggling to retain the first-generation Latino students who do make it to college through to graduation (Tinto, 1987; Cabrera, Nora, Castaneda, 1992; Bean, 1980; Strauss & Volkwein, 2004). In response, some colleges and universities (e.g., California State University-San Marcos, UC Berkeley, Colorado State, University of Cincinnati, etc.) offer programs specifically designed for first-generation college students and some states (e.g., California, New York, New Jersey) have implemented state-wide programs for first-generation students; however, few state programs exist for first-generation Latino students, specifically.

To understand first-generation Latino student retention, it is important to first understand Latino culture. Oftentimes, the student's decision to persist in college is beyond what a university alone can address. First-generation Latino students often come from low-income families (Montero-Sieburth & Melendez, 2007) and are still part of an intergenerational poverty group, which refers to poverty induced by their parents' socially- and economically-challenged background (Wagmiller & Adelman, 2009). At comparable levels of exposure to poverty during childhood, Latinos are more likely than Whites to be poor throughout their early and middle adulthood. This is of particular importance because it places race itself as a factor in poverty and ultimately as a factor in the success of Latinos. The ability to escape poverty depends upon numerous factors, such as educational and employment opportunities, the availability of role models, and a child's and parents' aspirations (Wagmiller & Adelman, 2009). If Latinos do not have these external opportunities, it is considerably more difficult for them to escape the cycle of poverty. While not all Latinos live in poverty, 62 percent of Latino youth lived in lowincome families (families with income below 200 percent of the official poverty line) in 2015 (Lee, 2015) and 95 percent of this group are U.S.-born with voting rights (NCLR, 2015).

The problem of intergenerational poverty among Latinos directly affects the future of the nation. The Latino population has been the principal driver of U.S. demographic growth, accounting for half of the national population growth since 2000 (Pew Hispanic Center, 2018) with a projected growth of 111 million by 2060, larger than

any other minority group. As the current U.S. population ages rapidly and produces lower fertility rates, it is progressively replaced by the younger, quickly growing Latino population. To ensure the U.S. maintains its current position as a political and economic leader in the world, it is a demographic imperative to develop and educate Latinos and break the cycle of intergenerational poverty. Failure to address Latino education will perpetuate if not worsen the cycle of intergenerational poverty, leaving nearly one-third of the American population uneducated, without work—as the number of jobs requiring a bachelor's degree increases (BLS, 2020)—and in poverty.

Although the importance of having an educated Latino population has been documented at length (Gonzalez, Huertas, Tinajero, 2002, Lopez, Ramirez, Rochin Polanco, 1999), first-generation Latino student college completion rates are consistently lower than any other demographic group in the U.S. Low retention and completion rates are attributed to several reasons, including intergenerational poverty, racial and ethnic disparities, lack of college readiness, lack of familial support, financial instability, low academic self-esteem, and difficulties adjusting to college, among others (Hudley, et. al 2009, Bers & Schuetz 2014, Arnold, Lu and Armstrong, 2012, Stephens, Hamedani & Destin, 2014, Sparkman, Maulding, & Roberts, 2012). This educational crisis will have a profound impact on the future workforce of our nation and threatens to leave thousands of young people trapped in poverty (Wilson, 2018, Ray Chetty, 2018, Ham et.al, 2014, Sharkey, 2008). However, through education, Latinos have more opportunity to develop abilities and skills, combat inequalities, and, ultimately, escape poverty.

First-generation Latino students have an intersection of disadvantages that further increase the likelihood they will drop out of college (Fike, D. S., & Fike, R., 2008;

Thayer, 2000; Lofink and Paulsen, 2005). The transition to college for first-generation students is challenging, both academically and culturally (Choy, 2001; Nunez & Cuccaro-Alamin, 1998), and the group of students considered as first-generation is disproportionately overrepresented by Latinos (Fike, D. S., & Fike, R., 2008; Thayer, 2000; Lofink and Paulsen, 2005). Students experiencing college culture without the benefit of intergenerational information about college coupled with the low numbers of Latinos in colleges and universities compared to Whites make participation in college particularly difficult for first-generation Latino students.

Current college and university student support service programs—such as the Educational Opportunity Fund (EOF) program in New Jersey, which addresses firstgeneration student need—are designed to increase student retention. It is crucial to expand the student retention literature by exploring programs that aim to specifically increase the retention rates of first-generation Latino students. A better understanding of the differences in persistence behaviors among first-generation Latino students will lead to the design and implementation of targeted programs and policies that promote the success of first-generation Latino students (measured by increasing their retention rates, graduation rates, and ultimately combating poverty as a nation). While the EOF program is not specifically designed for first-generation Latino students, first-generation Latinos account for over one-third of the students who benefit from the program. The EOF program was developed in the State of New Jersey in 1967 as response to a summer of race riots in Newark; the protestors demanded more minority students be admitted to universities. The program's central purpose aimed to increase the diversity of students participating in post-secondary education while preparing citizens for entrance into the

state's skilled workforce. The EOF program set the stage for many initiatives, such as pre-college articulations, basic skills testing and remediation, systematic retention efforts, peer counseling and peer tutoring, academic support courses, multicultural curricula, human relations programming, student leadership development, and outcomes-based program evaluation. It has gained national recognition as one of the most successful state-supported efforts to expand access to higher education for low-income first-generation students who have demonstrated commitment, motivation, and potential for success in the state (OSHE, 2020). The EOF program is one of the only state-funded programs in New Jersey that specifically targets first-generation students and is designed to integrate students academically, socially, and environmentally into higher education institutions. It is recognized for having an effect on the retention of its students. While the program is not specifically designed for Latinos, the number of Latinos in the program (one third) make it the most appropriate research site in New Jersey for my study of first-generation Latino student retention.

As a program proven to aid in student retention with higher retention rates than the rest of the student population year-after-year (OSHE, 2012), we can focus on determining how effective the EOF program is for our first-generation Latino students. The results of such an examination lay the foundation for researching and identifying the tools necessary to further increase first-generation Latino student retention.

To that end, this study evaluates the influence of the Rutgers, The State University of New Jersey's EOF program on first-generation Latino students who participated in the program compared to Rutgers University first-generation Latino students with similar characteristics who did not participate in the program. Rutgers University is the largest university system in the state of New Jersey. With three campuses of varying sizes located throughout the state, this system allows for the testing of different college environmental factors. By identifying the factors that increase the probability of retaining first-generation Latino students, we will better understand firstgeneration Latino student experiences and the characteristics that drive them to persist. This knowledge will help universities understand the need for targeted programs to support first-generation Latino student retention.

Purpose of the Study:

The purpose of the study is to reveal how the Educational Opportunity Fund (EOF) program impacts first-generation Latino student retention rates at Rutgers, The State University of New Jersey between the years 2007 and 2017. By determining if retention rates differed among EOF and non-EOF first-generation Latino students who exhibit similar characteristics, we can potentially use such programs as tools to begin to tackle the larger problem of poverty among Latinos. The higher the student retention rates and graduation rates in college, the more educated and capable Latinos become of breaking the cycle of poverty.

The principal question that guides this study: *How does the Educational Opportunity Fund program at Rutgers, The State University of New Jersey impact firstgeneration Latino student retention,* will be broken down in later chapters. Over one-third of the students who participate in the EOF program in New Jersey are Latino and it is documented that the program plays a vital role in retaining students (OSHE, 2015). These factors lead to the deliberate selection of the EOF program as the focus of this study. Vincent Tinto's (1993) student retention framework is the baseline of most retention theories and therefore informs this work. His framework addresses and examines student retention and the social and environmental conditions of students in college. According to Tinto's (1993) framework, the decision to 'drop out' from college arises from a combination of student characteristics and the extent of their academic, environmental, and social integration in an institution. The process of dropout from college can be viewed as a longitudinal process of interactions between the individual and the academic and social systems of the college during the individual's experiences in those systems. Students continually modify their goals and institutional commitments in ways that lead to persistence and/or to varying forms of dropout. Thus, Tinto's (1993) theory of student departure pays close attention to minority students and identifies the reasons why a student may choose to drop out from a university. Therefore, it is appropriately applied to this study of the EOF program, which seeks to address academic, environmental, and social integration to ultimately increase student retention.

Based on Tinto's theories as well as other supporting literature outlined in the next chapter (Reyes & Nora, 2012; Hurtado &Carter, 1997; Nunez & Cuccaro-Alamin, 1998; Terenzini et al., 1996), this study hypothesizes that participation in the EOF program will impact retention positively for first-generation Latinos from first year of college to second year of college and from second year of college to third year of college.

The findings of this study will help administrators address the problem of firstgeneration Latino student retention more effectively by determining what key predictors differentiate first-generation Latino students in the EOF program from first-generation Latino students not in the EOF program. The results will provide insight into the factors contributing to first-generation Latino student retention and thereby enable institutions to implement intervention strategies to ensure the retention of this population of students. Ultimately, by addressing first-generation Latino student retention, we will be able to generalize intervention strategies that affect the U.S. population as a whole, since Latinos make up such a substantial percentage of the population.

The following chapter (Chapter 2) provides a background of first-generation students in general and then specifically of first-generation Latino students and reviews the factors related to retention. Chapter 3 discusses the method of data collection and analysis. Chapter 4 carefully reviews the data collected. Chapter 5, the final chapter, reflects on and concludes the major findings of this study, policy implications, and future research implications.

LITERATURE REVIEW

More than 60 years after *Brown v. Board of Education (1954)*, the debate on how to combat racial inequalities in the nation's school system continues. More often than not, neighborhood effects are intertwined with inequalities based on race in which students of color, particularly Latinos—the largest and fastest growing ethnic minority group in America—have limited resources, which prevents them from reaching college. Of the 19 percent of college-age Latino students who do manage to make it to college, only 36 percent are retained and ultimately graduate (NCES, 2018). This statistic leaves an alarming percentage of the country's population without a college education.

The reasons Latinos struggle to obtain a degree are complex. Latinos are disproportionately poor and live in low-income communities where schools aren't preparing students for the rigor of college courses. As they enter adulthood, many Latinos find themselves supporting their families and they do not have the luxury to focus on schoolwork. In addition, many Latinos are the first in their families to attempt to obtain a degree, which also has distinct disadvantages.

These concerns have influenced a body of research specifically focused on retaining students in college and to persist through graduation. States and individual institutions have taken it upon themselves to create programs geared toward increasing graduation and retention rates. The primary purpose of this review is to understand the complexity of first-generation Latino students and to ascertain whether there is compelling evidence that programs like the Educational Opportunity (EOF) program in New Jersey are the appropriate tool to tackle issues of retention in colleges and universities for first-generation Latino students.

The scope of this review is limited. Most literature on first-generation Latino student retention is intertwined with either general retention theories or first-generation student characteristics and do not focus on the intersectionality of being a first-generation Latino student. What became apparent in the process of this review, however, was that several subsidiary problems, such as schooling, neighborhood, and income, must first be addressed before the problem of first-generation Latino student retention could be tackled. Furthermore, although this review addresses the works of seminal thinkers in student retention, such as Vincent Tinto, there are fewer studies on first-generation Latino student retention and even more limited information about the EOF program's direct impact on first-generation Latino student retention. I have included relevant studies; however, the dearth of such studies creates a gap that is filled by the research outlined in the following chapters.

The review of the literature begins by identifying the background information on first-generation students and first-generation Latino students, followed by the relevant factors that have been identified to predict student retention. The second section focuses on theoretical models of student retention in higher education with a particular emphasis on first-generation Latino students. Ultimately, there is a review of state-funded student support service programs in New Jersey.

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First-generation Students

The first step in understanding first-generation Latino students is to define "firstgeneration." Some of the nuances in the definition affect national, state, and institutional programs aimed at helping students and can be restrictive. Defining "first-generation" has become essential in starting any conversation about first-generation students.

The Department of Education interprets first-generation status in at least three different ways: the legislative definition (no parent in the household has a bachelor's degree); and, the two used most commonly in research, parents in the household have either no education after high school or no degree after high school (Sharpe, 2017). Researchers used data from a longitudinal study that began in 2002 and analyzed eight different definitions for the term. They found that the number of students who could be called first-generation in a 7,800-student sample ranged from 22 percent to 77 percent (Toutkoushian et. al, 2018). Given the number of definitions, it is important to define first-generation before any assumptions are made. In the case of this study, for consistency, first-generation status is determined by parents who did not finish high school or have not had any schooling after high school. However, the EOF program uses the definition loosely among the three universities reviewed.

There are also many assumptions built into first-generation status. One important assumption is that parents of first-generation students have little to no experience navigating the academic, financial, and cultural barriers to higher education, including the application processes (admissions and financial aid), which can be daunting even to those who do have experience. This and other assumptions have led to the term "firstgeneration" being used almost interchangeably with "low-income" or "underprivileged," which may not always be the case. Additionally, for Latinos, there is often the secondary question of whether "first-generation" signifies that the student is a member of the first-generation in their family to arrive in the U.S. This study focuses solely on Latinos without regard of when they or their families arrived in the U.S.

Despite the many definitions of first-generation, there is an extensive body of research that suggests that students who are considered first-generation are at a distinct disadvantage regarding staying in college and experience a unique set of barriers that often prevents them from persisting in college (Horn & Nuñez, 2000; Nuñez & Cuccaro-Alamin, 1998; Warburton, Bugarin, & Nuñez, 2001). First-generation students experience significant obstacles in accessing college, persistence, and overall college readiness and preparedness as well as in succeeding academically once in college (e.g., Choy, 2001; Ishitani, 2006; Pascarella et al., 2004; Stephens et al., 2014; Woosley & Shepler, 2011). In recent years, The National Center for Education Statistics has taken the lead on research for first-generation student attainment. Based on the national research, first-generation students exhibit distinct characteristics:

> Compared with their peers whose parents were college graduates, firstgeneration students were more likely to be Black or Hispanic and to come from low-income families. They were less prepared academically for college as demonstrated by their lower rates of taking higher-level mathematics courses in high school, their lower senior achievement test scores, and their lower college entrance examination scores. They were also more likely to delay postsecondary entry, begin at a 2-year institution, and attend part time and discontinuously. These characteristics, as shown in earlier research, put them at potential risk for not persisting in their postsecondary studies and completing a degree. (Nuñez & Cuccaro-Alamin, 1998)

First-generation students who attend college have a significantly lower probability of being academically prepared than do other demographics. Among 2017's 1.7 million

first-time freshmen who took the Scholastic Aptitude Test (SAT), a national examination that determines college readiness, 44 percent had parents whose education was less than a bachelor's degree. 50 percent of those students did not meet the SAT benchmarks indicating college readiness. Conversely, the higher the level of parental education, the higher the likelihood students met the SAT benchmarks for college readiness (College Board, 2020).

The SAT benchmarks are determined based on the likelihood that a student will be retained in college. Students exceeding the SAT benchmarks have a 75 percent chance of earning at least a C average in the first semester (College Board, 2020). 24 percent of SAT test takers were Latino and only 39 percent of Latino test takers met the SAT benchmarks for college readiness. This sets the stage for the conversation about retention in college. First-generation and Latino students are not meeting the college readiness thresholds; therefore, if and when they do enter college, they are already set up to fail.

Characteristics of the high schools that first-generation Latino students attend can also affect a students' aspirations, expectations, and motivation for college education (Tinto, 1975). A high school's commitment to college placement can be determined by whether the high school is public or private, its ranking within the neighborhood, and college placement levels. Many parents with a college education often live in places with better school districts or can financially afford to send their children to private schools or to public school districts with more funding (Jargowsky, 1997). The ability level of students in the high school and the school's social status composition affect not only a student's perception of his or her own ability but also his or her expectations for future college education (Tinto, 1975). These circumstances directly impact first-generation Latino student retention; if there is no motivation or commitment to attend college initially, then there may be no external motivation to stay.

While certainly not all Latinos are first-generation, 48 percent of Hispanic students are first-generation (PNPI, 2018), compared to 42 percent of Black students and 28 percent of White students. Much of the research is often applicable to Latino firstgeneration students. In addition to a lack of college readiness, first-generation students are more likely to take remedial courses (non-credit bearing) in their first semester of college, which often puts them behind their peers. Nationally, first-generation students have lower median household incomes (\$37,565) compared to students whose parents attended college (\$99,635). The mean amount of unmet financial need to pay for college for low-income, first-generation students was nearly \$6,000 (before loans), which represented half their median income of \$12,100 (PNPI, 2018). As a result, firstgeneration students work and borrow more than their peers, which also carries negative consequences in the attempt to complete college. Lastly, 27 percent of first-generation students come from households making less than \$20,000 a year (PNPI, 2018).

First-generation Latino college students are disproportionately overrepresented in the most disadvantaged racial and income groups and thereby have intersecting sites of oppression that uniquely position them at a disadvantage when attending college. As the first in the family to experience college culture, first-generation students lack the intergenerational benefits of information about college, which makes persisting in college for first-generation students difficult (Lohfink & Paulsen, 2005), and particularly difficult for first-generation Latino students.

First-generation Latino Students

Race and ethnicity are consistently factors in predicting student retention. Gutierrez and Dantes (2009) find that, among minorities, Latino and Black students are the least likely to be retained in college. The National Center of Education Statistics demonstrates that Latino and Black students have a lower rate of bachelor degree attainment when compared to White and Asian students (2012). Specifically, in the year 2012, Hispanic students had a 52 percent bachelor degree attainment rate, compared to 73 percent of White students. In a survival analysis study at Oregon State, Latino students were the group least likely to be retained (Murtaugh, Burns, & Schuster, 1999). However, in colleges and universities where the majority is minorities, the story is different. Hawley and Harris (2005) find that, in predominantly Black community colleges, being Black or Latino was a strong indicator of retention, while being of any other race was a significant indicator of dropout.

Intergenerational Poverty

When addressing matters of first-generation Latino students, it is a complex task to disentangle low-income status or issues of poverty that come with having parents who did not attend college. Intergenerational poverty is poverty induced by the socially- and economically-challenged background of an individual's parents (Wagmiller & Adelman, 2009). Poverty is transmitted from one generation to another—poor parents raise poor children who are more likely to become poor themselves in adulthood. The Chronic Poverty Research Center (2020) associates the intergenerational transmission of poverty with the long-term effects of poor nutrition, inadequate education and health care, and fewer assets or a lack of opportunity. It claims that policies and programs are the primary way to break this cycle.

Latino children who are born poor are likely to remain poor (Bowers, 2011). The National Center for Children in Poverty's panel study of the long-term consequences of growing up poor identify that children growing up in low-income families face many challenges that children from more advantaged families do not, including frequent moves and changes in schools, enrollment in schools that are not as well-funded, and living in neighborhoods that are more disadvantaged (Wagmiller & Adelman, 2009). Parents have fewer resources to invest in their children. Consequently, their homes have less cognitively-stimulating materials and they invest less in their children's education (Wagmiller & Adelman, 2009). Ultimately, individuals who grow up in poor families are much more likely to be poor in early adulthood.

Nearly two-thirds (62 percent) of Latino students live in poverty and less than 20 percent have parents who have attended college. Latinos who do not earn at least a bachelor's degree reflect both the highest level of unemployment and lowest average salary earnings (BLS, 2018). The lack of parents' college education deprives students of critical cultural capital associated with education—such as the knowledge, language, values, experiences, and ways of doing things—that is attributed to students who have at least one parent who has obtained a college education (Hirudayaraj, 2011).

Many researchers have shown that socioeconomic status can predict retention, as well (Benbow, Arjmand, & Walberg, 1991; Braunstein, McGrath, & Pescatrice, 2001; Connell, Aber, & Spencer, 1994; Fike & Fike, 2008; Strauss & Volkwein, 2004). Walpole's (2003) study of 209 four-year colleges and universities across the U.S. sampled more than 12,000 students and found that individuals of lower socioeconomic status were less successful than those of higher socioeconomic status. Even in the U.S. Department of Education's (2006) studies, which use national datasets, results reveal that students of lower socioeconomic status graduated at lower rates than those of higher socioeconomic statuses. Leppel (2002) also finds that, the higher a student's socioeconomic status, the more positive the impact of persistence. Students of a higher socioeconomic status are more likely to have parents who attended college and have access to information and financial resources that are necessary for completing college, as well (Watson, 2015).

Familismo

The role of the family in Latino culture has been documented extensively. Familismo (familism) is considered to be one of the most important cultural values among Latinos (Triandis et al., 1982). It is the concept that Latinos have "(a) perceived obligation to provide material and emotional support to the members of the extended family; (b) reliance on relatives for help and support; and (c) the perception of relatives as behavioral and attitudinal referents" (Santiago-Rivera, 2003). Familismo also indicates a preference for living near immediate and extended family members. Essentially, the value placed on the family involves an obligation to share the responsibility of rearing children, providing financial and emotional support, and making decisions about issues that affect the family. Among first-generation Latinos going to college, there is a duality between succeeding in school and the responsibility of the family. They may not understand their intrinsic role as a student and what it implies once they reach college (Collier & Morgan, 2007). The role they play in their respective families will always come before college persistence (Nunez & Cuccaro-Alamin, 1998; Bonilla Santiago, 2014).

Family has a great deal of influence on both a student's decision to attend college and where to attend college (Freeman, 2012; Stage & Hossler, 1989; Rowe, 1994; Davis-Kean, 2005). Whether it is the inverse relationship between socioeconomic status and dropout rates (e.g., the higher the socioeconomic status, the lower the dropout rates) (Astin, 1964; Eckland, 1964; Lembesis, 1965; McMannon, 1965; Panos & Astin, 1968; Sewell & Shah, 1967; Wegner, 1967; Wolford, 1964) or the positive relationship between persisting in college and having parents with more education (Jaffe & Adams, 1970; Spady, 1971; Tinto, 2012), family will influence any student's behavior and family influence is even more relevant for a Latino student than for other demographics.

Nora (1990) explains that, among first-generation Latino students, family influences student retention but urges that there is a need to identify the extent of that influence. Hernandez (2002) discovers that, for first-generation Latino students, family simultaneously serves as a large support system and as a system that places pressure. Family can place both positive and negative pressure on a student to attend college. Some students experience a sense of responsibility and/or hold the belief that they "owe a debt" to their parents. In many cases, going to college is a student's "contribution" to their families, particularly after witnessing parents struggle (Hernandez & Lopez, 2004). Pressure can come in the form of a family's standards (e.g., dropping out of college is not an acceptable option) or the expectation to go beyond what the family has achieved in careers. Institutions looking to retain students should take the family's positive and negative pressures into consideration and facilitate a way for families to become more involved in the college process through admission and beyond.

First-generation Latino Student Retention

First-generation Latino students are the largest ethnic group without bachelor degrees, despite being the group with growing numbers of college attendance and the highest educational aspirations (PNPI, 2019). Educational aspirations are often a result of the "American Dream" mentality, which carries the idea that opportunity is equally available to any and all Americans and therefore suggests the possibility of achieving the highest educational aspirations. The search for opportunity in the U.S. does not always translate to obtaining a college degree (McCaron et al., 2006). Parents who have not earned a college degree are less likely to transmit the value of higher education to their children in the form of knowledge-based resources, such as guidance with SATs and college applications (McCaron et al., 2006). A first-generation Latino's desire for the credentials (e.g., a college degree) that increase the potential for higher earnings in the future is often unmet because this failure of transmittance leaves them bereft of the tools necessary for success in attending and persisting in college.

Whether first-generation Latino students had influencers before college consistently appeared in the literature as an effect on persistence. Saunders and Serna (2004) research first-generation Latino students participating in the Futures Project using social/cultural capital theory, social reproduction theory, and critical theory. For four years, Futures Project high school students participated in a variety of activities that provided resources, relationships, and critical information for college preparation including mentoring, college field trips, parent information sessions, and assistance with college applications and financial aid. As the Futures Project first-generation Latino students made the transition from high school to college, a reconfiguration of relationships and constructive social ties transpired. First-generation Latino students who participated in the Futures Project demonstrated proficiency reconfiguring social networks, establishing new ones, and seeking resources and assistance to ensure their continued academic success and ultimately applied to college (Saunders & Serna, 2004). The skills first-generation Latino students developed through their participation in the Futures Project guided them through college, whereas first-generation Latino students who did not participate were less likely to succeed.

Many first-generation Latino students require remedial coursework after enrolling in college (NCES, 2005), which reflects their high schools' often-weaker academic preparation. Because these remedial courses are typically not credit bearing, these students are at a distinct disadvantage and now experience a longer timeline to graduation as well as feelings of inadequacy compared to other students. First-generation students earned an average of 18 credits their first year in college compared to the 25 credits earned by students whose parents possessed bachelor degrees (NCES, 2005). Earning fewer credits than their peers puts first-generation students behind their peers; therefore, they may face more issues with social integration. First-generation Latino students also had lower grade point averages (GPAs) and were more likely to withdraw from courses or repeat courses than those Latino students whose parents had bachelor degrees (NCES, 2005).

In a study of remedial education and student attrition, remedial course enrollment is associated with low first-term GPAs and, despite other factors, can be one of the major positive influencers of student retention (Hoyt, 1999). Many studies highlight the importance of having a remedial program of study for academic success (Lau, 2003; McCabe, 2000; Higbee, Arendale, & Lundell, 2005). Some studies even estimate that, with the absence of remedial education, two million students would drop out of college annually (Higbee et al., 2005). Passing a developmental reading course can be the strongest predictor for retention (Fike & Fike, 2008).

First-generation Latino students are also less likely to seek adequate resources to support their academic needs. Often attributed to confidence levels, first-generation Latino students have less contact with faculty members and report fewer hours per week studying. They are less likely to participate in honors programs or programs that highlight their integration and interactions with faculty and staff (Terenzini et al., 1996). They less frequently, if at all, communicate with faculty, including in the classroom, and less frequently assist faculty with research (Kim & Sax, 2009). Since first-generation Latino students hold jobs outside of school and tend to work more hours than their counterparts, they often don't have time to attend office hours (Pascarella & Wolnniak, 2004).

In Torres et al.'s 2006 study of first-generation Latino college students' experiences, researchers find that first-generation Latino students fail to recognize advisors as authority figures, particularly when looking into and attending college. Firstgeneration Latino students consistently relied on information from peers, pamphlets, or staff with whom they had built a personal relationship. First-generation Latino students who did change their patterns of information seeking were often faced with negative experiences. This is particularly important because it highlights that first-generation Latino students value cultural experiences and the importance of building personal relationships within the school, which stems from the foundations of familismo.

Involvement

Alexander Astin's (1984) theory of student involvement states that student involvement creates ties to the university in a social setting and increases retention rates, academic performance, and connection with the university. For first-generation Latino students, it is beneficial to have a peer group that builds a sense of community and a commitment to that community that leads to integration. However, first-generation Latino students often experience difficulty finding peer groups organically (Dennis, Phinney, & Chuateco, 2005) unless the university has explicitly built these groups. The more involved in the college community a first-generation Latino student becomes, the more likely he or she is to be retained (Clayton et al., 2017; Hill & Torres, 2010).

Theoretical Frameworks on Student Retention

Over the years, a vocabulary developed for student retention and includes terms such as: student mortality, college dropouts, student attrition, college retention, and student persistence. Four different types of retention have come to light: institutional, systemic, major, and courses (Seidman, 2005). The most common and researched is institutional retention, which is the measure of the proportion of students who remained enrolled at the same institution year over year. The majority of institutions focus on institutional retention because it has a direct impact on student enrollment and the bottom line for universities. Systemic retention places an emphasis on the student and tracks whether the student is continuing year over year, regardless of institution. The third and fourth types of retention, major and courses, account for students' persistence in their major and in their courses, respectively (Seidman, 2005).

Many researchers associate first-year student retention with their first-year experience (Barefoot, 2004; Craig, & Ward, 2008; Kuh, 2009; Porter & Swing, 2006) and many universities have adopted first-year experience programs to improve student success and increase retention. A growing body of research has also emerged that focuses on sophomore retention as a response to the "Sophomore Slump" (Yu, DiGangi, Jannash-Pennel, 2010; Schreider, 2009), which indicates that sophomore year is one of the toughest years and urges universities to invest in programs that help retain sophomore students. For the purpose of this study, institutional retention from first to second year and from second to third year will be considered. Studies have found that one-third of all students who entered higher education in a given fall semester did not return for a second year (Watson, 2015).

William Spady is one of the first individuals to research student retention. Spady's (1970) model proposes five independent variables (grade performance, intellectual development, normative congruence, friendship support, and social integration) and provides the theoretical rationale for looking at both the academic and social systems of the college experience. He simultaneously linked pre-college experiences to later social and academic outcomes (1970).

Arnold Van Gennep, another known contributor to student retention research, examined people leaving the environments they came from and joining new environments similar to college students leaving their high school friends and meeting new friends in college. He identified three stages a student goes through: separation,

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transition, and incorporation (1960). However, in his research, Van Gannep did not consider external factors, programs, or the environment.

Tinto, along with the two aforementioned theorists, incorporated Emile Durkheim's theory of suicide (1897). Tinto applied Durkheim's theory and introduced the idea that, like suicide, drop out from college is more likely to occur when individuals are insufficiently integrated into the fabric of society (1987). He suggested that departure from college can be understood as a longitudinal process of interactions that take place between individual students and the academic and social systems in the college/university they attend (Tinto, 1987). Durkheim proved that the likelihood of suicide in society increases when there is both insufficient moral integration and insufficient collective affiliation (1897). Similarly, in his original 1975 theoretical model of dropout behavior, Tinto views college as a social system with its own value and social structures and treats dropout from that social system as analogous to that of suicide in the wider society (1987). When comparing the two, one can reasonably expect that the social conditions affecting dropout from the social system of college would resemble those resulting in suicide in a wider society.

Tinto argues that individuals enter college or university with a variety of attributes, family backgrounds, and pre-schooling experiences that affect their goal commitments and institutional commitments to finish college and to stay at their specific college (1987). In 1993, Tinto expanded his model to offer additional explanations of student departure, including externalities such as financial support, adjustment difficulty, incongruence, isolation, learning, and external commitments. The reasons why a student leaves a university entirely can be completely different from the reasons why a student transfers to a different university. Also, in this model, Tinto identifies different student groups—such as Black students and Latino students from low-income families, adult students, and transfer students—with unique experiences requiring group-specific interventions and policies (Demetriou & Scmitz-Sciborski, 2011).

Although Tinto's theory is the most pervasive in student retention literature, many contributors have exposed the lack of depth in his analysis for minority and special populations, such as Latino students. For example, Tierney (1999) suggests that, by placing the onus on students to assimilate to institutional values and norms in order to be more likely to persist, student integration theory encourages students from nontraditional backgrounds to commit a form of cultural suicide, cutting all ties with their home cultures. Instead, Tierney advocates for cultural integrity and places the responsibility on the institution to create a more inclusive culture (1999). Similarly, Rendon (1994) links the expectation of nontraditional students to assimilate into a new, dominant institutional culture to their development of feelings of alienation and intimidation and suggests it may lead to students doubting their ability to succeed in college. She finds that external agents, such as faculty, staff, and administrators, play a role in providing students with academic and interpersonal validation that empowers them to believe in their abilities to be powerful learners (Reyes & Nora, 2012). Hurtado and Carter (1997) also proposed that a sense of belonging is a useful measure for recognizing that students may simultaneously maintain affiliations within multiple communities.

The critiques of Tinto's models almost unanimously point to the idea that educators and institutions must recognize that students from diverse backgrounds will carry with them diverse ways of being and knowing (Reyes & Nora, 2012). Instead of attempting to eradicate these differences, institutions must find ways to help students maintain their sense of identity and develop their differences into unique strengths that contribute to their success in college. This is essential in the examination of how institutions can better serve the first-generation Latino student population as there are cultural differences that may require specificity in retention strategies.

Tinto's student retention theory aligns with the narrative on first-generation Latino student retention. It will help us understand why Latino students remain as the largest group of students dropping out from colleges and universities and assist with identifying the reasons as to why they drop out. Based on his conceptual model (Figure 1), family background, individual attributes, and pre-college schooling determine the goal commitments from a student (to attend a university) as well as an institution's commitment to a student (admission or financial aid). Once the student is admitted, they enter the academic and social system of the university and interactions such as grade performance or peer-group interactions affect their integration and either build their commitments to continue or influence their decision to drop out. Figure 1 A Conceptual Schema for Dropout from College (Tinto, 1975)

There are many institutions that have implemented programs designed to influence both the academic and social systems once a student begins to attend college to create equilibrium between factors that are less controllable. Most programs affecting change at the institutional level will have a direct effect on academic and social integration (Figure 2).

> Figure 2 A Conceptual Model for Dropout from College (Tinto, 1993)

In an attempt to validate Tinto's longitudinal model by using a theoretical model, Pascarella and Terenzini (1980) employed a detailed questionnaire at Syracuse University to a simple random sample of 1,900 incoming students each year and added evidence to retention research that the student-faculty interactions and group dynamics are positively correlated with student retention. However, they suggested that further research is necessary to replicate the investigation on samples from other institutions which trace persistence or dropout behavior past freshman year to further determine the predictive validity of the variables.

State Funded Student Support Programs in New Jersey

Studies show that, despite growing efforts by state governments to improve college success, it is unclear how their actions have helped foster college completion (McLendon, Tuckmayer, & Park, 2009). In the state of New Jersey, there are several precollege programs to promote college readiness, including Gear-Up, College Bound, Governor's School of New Jersey, and College Access Challenge Grants. Colleges and universities across the state host these programs for high school students. The EOF program is the only state-funded program aimed at promoting student retention after a student is admitted to college (OSHE, 2019)

The EOF program was created in 1968 as a response to the previous summer's riots in Newark, New Jersey. Since then, many other states, including New York and California, have adopted similar models. The Chancellor of Higher Education, Ralph A. Dungan, outlined a proposed program to provide special assistance for students from economically- and educationally-disadvantaged backgrounds. The EOF program set the pace for many initiatives that are considered the standard for college life, such as pre-college articulation, basic skills testing and remediation, systematic retention efforts, peer counseling and peer tutoring, academic support courses, multicultural curricula and human relations programming, student leadership development, and outcomes-based program evaluation (OSHE, 2017). Today, the EOF program serves low-income, first-generation students who have demonstrated commitment, motivation, and potential
success in every county of the state of New Jersey. The program requirements have

remained relatively unchanged since its inception.

In order to be admitted into the program, students must apply via a supplemental

application and meet one or more of the requirements:

- 1. Participated in the National School Lunch program.
- 2. Received a College Board fee waiver for financial hardship.
- 3. Is a ward of the court or both parents are deceased.
- 4. Has a sibling in the EOF program.
- 5. Is receiving Welfare of Temporary Assistance to Needy Families (TANF).
- 6. Parents' highest level of education is less than a four-year bachelor degree for both parents.
- 7. Indicated participation in NJ College Bound, Gear Up program, or activities that help prepare disadvantaged students for higher education.
- 8. Home Community: The student attends a District Factor Group (DFG) A or B school or resides in a High Distress Municipality (HDM) (See Appendix 2).

To receive funding, students must also 1) meet the minimum income criteria,

which is 200 percent of the national poverty thresholds based on the previous two years'

taxes and 2) be themselves and have parents or guardian(s) who are New Jersey residents

and U.S. citizens or permanent residents.

Students admitted into the EOF program begin college the summer prior to their

first semester in an intensive residential summer institute where all newly-admitted students are required to live on campus in order to acclimate to college before the rest of the student population arrives on campus. During the summer, students take placement testing, complete remedial coursework, and enroll in a freshman seminar designed to teach students essential skills, such as time management and study skills, before their first semester. Students also participate in inclusive team-building and other activities to acclimate to the campus. After the summer, students in the EOF program receive one-on-one academic coaching and student support services with an assigned EOF counselor, with whom students are required to meet at least once per semester. EOF students attend student-centered workshops to address professional development, academic success, and other educational topics in a setting that is designed specifically for EOF students.

Along with services, the program also provides grant funding ranging from \$200 to \$2,500 annually, depending on a student's financial need, and is renewable based on continued eligibility. This funding is supplemental to federal and state aid, which includes Pell grants, state grants, and full need-based grants. Generally speaking, the EOF grant combined with federal and state funding covers students' entire tuition and fees as well as partial housing costs; therefore, there is a financial aspect that students do not need to worry about. The EOF program intentionally creates a family-like environment to ensure academic success and on-time graduation and encourages students to be active leaders within the campus community.

Because the EOF program is campus-based, the actual number of spaces available at each college is limited and each campus is responsible for student recruitment, selection, program services, and its own specific criteria for EOF admission and program participation (NJ.gov, 2017). The state-level criteria require the student to demonstrate that he or she is from an educationally- and economically-disadvantaged background, has been a New Jersey resident for at least 12 consecutive months prior to receiving the award, has applied and accepted an offer of admission to a participating New Jersey college or university, has filed the Free Application for Federal Student Aid (FAFSA), and meets income criteria. The EOF program is primarily comprised of students of color because of the criteria that specifies low-income and first-generation. The most recent state report (OSHE, 2012) informs that Latinos account for 34 percent (4,136 students) of the total EOF population, making them one of the largest populations of students in the program.

Similar state-funded programs exist in the states of New York and California, each state providing funding to schools across the state to increase the number of firstgeneration, low-income students in the state reaching college and attaining degrees. Because the funding is state-based, these programs are specific to the University of California and the State University of New York systems. In New York, studies have found that New York City Black and Latino males who are in their state's program perform better than those who are not and perceive themselves as having more support (Harper et al., 2014). In California, a study of Black undergraduates in the mathematics workshop program at the University of California, Berkeley showed that students in the EOF program fared better in mathematics courses (Fullilove et al., 1990).

Theory of Educational Opportunity Fund Programs

Theoretically, Tinto's (1975) model, reviewed previously in this chapter, indicates that students' interactions on campus have a direct effect on their likelihood to persist or stay at that particular institution. Terenzini, Spady, Pascarella, and Astin focused their studies on persistence behaviors and contributors to a student's decision to stay. All of their studies indicate that, the more a student is connected to the university socially, the more likely they are to be retained. In social science, Putnam's (1993) social capital theory also indicates that the growth of an individual is impacted by the community linkages to broader resource bases. The EOF program has specifically been shown to

improve retention (Watson, 2015) in a study of community colleges in New Jersey, as well.

By design, the EOF program links students to the university they attend by facilitating small cohorts that encourage connection among students of similar backgrounds. The program also brings students onto campus the summer before they enroll to affiliate them with the physical space and to participate in remedial coursework before other students, allowing them to get acquainted with professors. These fundamental parts of the EOF program are consistent with the theories (Tinto, 1975; Tinto, 1993; Terenzini et. Al., 1996; Spady, 1970; Pascarella et. Al, 2004; Astin, 1993) that students who are connected to their campus are more likely to persist in college and be retained. Therefore, you would expect that participation in the EOF program would impact retention positively.

This study hypothesizes that participation in the EOF program would impact retention positively from first to second year of college and from second to third year of college for first-generation Latino students. In a study by Pascarella and Terenzini in 1980, a survey was created to trace persistence behavior that expanded Tinto's original longitudinal study. Using a triangulated approach, the current study conducts an expanded version of Pascarella and Terenzini's survey and uses a statistical analysis of the survey data along with the longitudinal study to consider what additional factors affect student retention among first-generation Latino students.

First-generation Latino students have much to gain from a college education (Pascarella et al., 2004) yet face significant barriers to college access and success (Choy, 2001; Crisp et al., 2009; Merisotis & McCarthy, 2005; Nunez & Bowers, 2011; Nunez & Cuccaro-Alamin, 1998; Terenzini et al., 1996). It is important to assess the impact state programs have on first-generation Latino student retention as well as how retention contributes to community development. Given that almost half of all Latino students attending college are first-generation students, more research must be done in order to appropriately close the educational gap for a group that will be the largest portion of the nation's future population (Reyes & Nora, 2012). This study provides a meaningful contribution to the literature by exploring the Educational Opportunity Fund (EOF) program in the state of New Jersey and the impact the program has on the retention rates of first-generation Latino students. Understanding the impact of this program will help solve the larger problem of keeping students in college so they can graduate and return to and leave a position impact on their communities.

Chapter 3

METHODOLOGY

This study investigates how the Educational Opportunity Fund (EOF) program impacts first-generation Latino student retention rates at Rutgers, The State University of New Jersey between 2007 and 2017. Analyzing the program's effectiveness for both EOF and non-EOF first generation Latino students allows us to consider the EOF program as a tool for university retention among all populations. Programs designed for first generation students, like the EOF program open the door to tackling the larger problem among Latinos: poverty. Higher Latino student retention rates and graduation rates in college lead to a better educated and therefore a more capable Latino population that is more likely to successfully break the cycle of poverty.

Mixed Methods Research Design

My goal is to develop a holistic understanding of the determinants of retention for first-generation Latino students. Therefore, the most appropriate approach is a mixed methods design that combines both quantitative and qualitative data in a triangulation approach. This specific approach draws on different but complementary data on the same topic to create a more complete understanding of the research problem. By combining generalizations with in-depth knowledge of participants' experiences, this study is more robust than one that relies on quantitative or qualitative data alone (Creswell 1994).

This research uses the Triangulation: validating quantitative model (Creswell, 1999), which specifically uses qualitative data to help provide a better understanding of the students' perspectives from the quantitative model. By first evaluating the quantitative data followed by getting insight from the same population in a survey

approach, we can validate the findings from the first quantitative method. My rationale for selecting mixed methods was to pair a look at aggregate data and patterns of retention with survey data of the EOF program success. Retention is a complex variable to measure quantitatively since there are so many reasons a students can retain, so it is imperative to supplement the findings with qualitative anecdotal evidence.

Research Question

The purpose of the study is to reveal how the Educational Opportunity Fund program impacts first-generation Latino student retention rates. In order to reveal the impact of the program, the principal question that guides this study is: *How does the Educational Opportunity Fund program at Rutgers, The State University of New Jersey impact first-generation Latino student retention.* The answer to this question will provide information that can be utilized by universities across the state of New Jersey and subsequently the United States.

Hypothesis

This study hypothesizes that participation in the EOF program will impact retention positively Sophomore and Junior year of college for first-generation Latinos. The elements of the EOF program, such as mentoring, financial aid, and remedial programming have been researched extensively and are significant predictors of student retention (Astin, 1993; Lau, 2003; McCabe, 2000; Higbee, Arendale, & Lundell, 2005; Singell, 2004; Nora, 1990; Kerkvliet & Nowell, 2005). Therefore, the EOF program, which combines all of these elements, should increase student retention, as well. *Case Selection* Rutgers, The State University of New Jersey, is the largest public university in the state of New Jersey and comprises three campuses: Rutgers University–Camden, Rutgers University–Newark, and Rutgers University–New Brunswick. Rutgers serves the largest number of students in the EOF program in the state; therefore, it was the appropriate site choice for this study. The state of New Jersey also has the highest six-year graduation rates for EOF students in the country at 55 percent (OSHE, 2015). This statistic creates a case for replication in other states, including states that do not have EOF program each fall and approximately one-third of all students in the EOF program are Latino, which mirrors the ratio for the state of New Jersey.

Rutgers University is also influential in the state of New Jersey and the Northeast, and as such, is identified as an influential case. The goal of this style of case study is to explore cases that may be influential for specific reasons (Seawright & Gerring, 2008). The size of its EOF program and multiple campuses of varying sizes and locations present Rutgers as a unique case for this study.

Although each of the campuses share a name, they are vastly different in size, location, and population type. Rutgers University–New Brunswick is the oldest and largest university in the Rutgers system with approximately 50,000 students across 5 locations in the central New Jersey region. As the largest and most recognized of the three campuses, Rutgers University-New Brunswick is the most competitive with the highest academic criteria in order to be admitted for both the EOF program, if applying to the program, and the university itself. Rutgers University–Newark is a mid-size university with approximately 14,000 students and the northernmost university in the Rutgers system approximately 20 minutes away from New York City. Because of its location in Newark, it has more of a city college environment. Rutgers University– Newark has continuously been named the most diverse university in the nation. Rutgers University–Camden is the smallest of the three universities with approximately 8,000 students and a small liberal arts college feel. Rutgers-Camden is the second most diverse college in the system and has a strong emphasis on civic engagement as the southernmost campus across the bridge from Philadelphia. Academically, Rutgers-Camden has the lowest admission criteria threshold. The differences in size, diversity, and programmatic resources provide an important variation that improves the generalizability of the study. Although all colleges are in New Jersey, they are vastly different in the student experience which provided the perfect sites for this study.

Data Collection- Institutional Data

After being approved via the Institutional Review Board (IRB), Rutgers University's office of Data Analytics and Campus Planning at Rutgers University-Camden provided a data file of first-generation Latino students. The data was originally collected as part of the university records through the admissions application, financial aid application, and student record database.

4,532 first-generation Latino Rutgers students were identified and followed through phases of data collection between the years 2007 and 2017. The first phase collected longitudinal data from all three campuses that represented two groups: firstgeneration Latino students in the EOF programs and first-generation Latino students not in the EOF programs. The data request included the pre-determined factors of goal commitments outlined by Vincent Tinto (1993), which include family background, individual attributes, and pre-college schooling, as well as factors attributed to the academic system, such as the academic and social integration of students. The second phase collected similar data via a survey that allowed for the collection of information regarding additional factors that affect student retention among first-generation Latinos not provided by Rutgers.

The Rutgers University–Camden Office of Data Analytics and Campus Planning provided the student-level descriptive data for this study. The dataset consisted of data points for the enrollment periods of the academic years between fall 2007 and fall 2017. To obtain this data, an Institutional Review Board (IRB) application was approved and granted permission to use pre-existing student-level unidentifiable data for research purposes.

The Office of Data Analytics and Campus Planning maintains all university databases. The file they provided for this research was a combination of data from three original data sources: the university application for admission, the Free Application for Federal Student Aid (FAFSA), and the Student Records Database (SRDB). First, the application: On an admission application, students provide self-reported information, which consists of pre-college variables—such as high school GPA, college entrance exam scores (e.g. ACT and SAT)—demographic information, and parent indicators, such as parents' highest education levels. Some of this information, such as high school GPA and exam scores, is audited and verified upon a student's enrollment. Second: When students file the FAFSA, self-reported then verified financial data is collected and stored in the Office of Financial Aid's database. This financial data is verified by federal and state sources. Third: Current student GPA and retention data is stored in the Office of the

Registrar's Student Records Database (SRDB).

The following variables were obtained for this study from each database for first-

generation Latino students:

 NJAS Database (Prior to admission): Gender, Race, City, Zip, SAT comp, ACT comp, Cumulative GPA, DFG (District Factor Group), HDM (High Distress Municipality), HPC (Historic Poverty Criteria), Class Rank, EOF indicator, NJ residency, Father Highest Level of Education, Mother Highest Level of Education, High School, National School Lunch, College Prep program, Ward of Court, Application Fee waiver, Sibling in EOF, School code, Age at point of admission
 FAMS Database (Financial Aid): EFC (Expected Family Contribution),

2. FAMS Database (Financial Alu). EFC (Expected Family Contribution),
Family Gross Income, Household Size, EOF Eligibility
3. SRDB Database (Post Admission): Major, First-to-second-year retention,
second-to-third-year retention, GPA at end of first year fall, GPA at end of first year spring, GPA overall

District Factor Group (DFG) (Appendix 2), High Distress Municipality, and

National School Lunch are variables indicative of poverty. The DFG variable identifies

whether students come from a school in a DFG of A and/or B. Schools in DFGs A and B

are schools with high poverty concentrations (NJ.gov). DFGs were developed by the state

of New Jersey as a way to compare students' performance on statewide assessments

across demographically similar school districts. In one indicator, it evaluates the

percentage of adults with no high school diploma, percentage of adults with some college

education, occupational status, unemployment rate, percentage of individuals in poverty,

and median family income.

Similarly, a High Distress Municipality is an indicator created by the state of New Jersey based on the Municipal Revitalization Index (MRI). The MRI determines whether or not a municipality is considered highly distressed by focusing on neighborhoods and examining children on temporary assistance for needy families (TANF), unemployment rates, poverty rates, high school diplomas earned, median household incomes, percentage of households that participate in the supplemental nutrition assistance program (SNAP) as well as other indicators, such as percentage of population change, non-seasonal housing vacancy rates, property tax rates, and property valuation. For the purposes of this analysis, the High Distress Municipality binary variable indicates whether a student comes from a neighborhood considered highly distressed. Rutgers University calculates this indicator automatically based on applicants' home addresses and is often considered in EOF admission decisions.

The National School Lunch program is a federally-assisted meal program that provides low-cost or free lunches for children every day at public schools, nonprofit private schools, and residential child care institutions (US Department of Agriculture, 2018). This variable indicates whether students participated in this program while in high school. College Prep is a variable indicative of whether students attended a college prep program, such as Rutgers Future Scholars, Gear Up, or any program designed to prepare high school students for college.

The EOF sibling variable notates whether students have siblings who are or were in any EOF program across the state of New Jersey. The household Adjusted Gross Income (AGI) is the student's household's adjusted gross income. Estimated Family Contribution (EFC) is the estimated family contribution to a student's education. This is a federally calculated number to determine how much a family is able to contribute toward their child's education. The SAT Score is a student's score on the national Scholastic Aptitude Test for college admission. Typically, a student takes the SAT or ACT (American College Testing) exam as a requirement for college application. The high school percentile is the student's rank in their high school class. Age at start is the age at which the student started college.

The first term GPA indicates the student's GPA at the end of the first semester. The second term GPA is the student's GPA at the end of the second semester. The first year cumulative GPA is the overall GPA for the student's first year. The third term GPA is the student's GPA at the end of the third semester. Lastly, the second year cumulative GPA is the student's overall GPA at the end of the second year.

Data Collection- Survey Data

This study adapts Terentini et al.'s (1996) validated survey, detailed in Appendix 1. The survey restructures the original questions to reach first-generation Latino students as well as to gauge additional factors that affect first-generation Latino student retention in the EOF program and first-generation Latino students not in the EOF program. This study's survey allowed for the triangulation of the data outlined in the first quantitative approach and matched the data using email addresses provided by institutional research for the purpose of matching. In addition to and following the survey questions, this survey includes a questionnaire of open-ended questions that explicitly ask about influencers of retention. The questionnaire asks the survey-taker what resources they received while in college, whom or what contributed to their decision to persist, and what their experiences were like as a first-generation Latino student. The use of a questionnaire enabled participants to express their views in their own words without the pressures often imposed in a one-on-one interview or focus group while focusing on the themes outlined in the literature specific to first-generation Latino students. The Qualtrics survey (Appendix 3) was distributed via email to all 4,532 firstgeneration Latino students in the population of Rutgers students between 2007 and 2017 (which consisted of 1,158 EOF students and 3,374 non-EOF students). All students were incentivized by a raffle of five \$25 Amazon gift cards. Participants who completed the survey were entered in the raffle to win. The results were then combined with the original dataset and each question coded.

Of the entire population, 401 students responded, of which: 31 (9.7 percent) attended Rutgers University–Camden; 75 (23.5 percent) attended Rutgers University– Newark; and 213 (66.8 percent) attended Rutgers University–New Brunswick. These proportions mirror the distribution in the sample, which is 8.52 percent Rutgers–Camden, 27.65 percent Rutgers–Newark, and 63.8 percent Rutgers–New Brunswick.

Method of Analysis- Quantitative Analysis

For the quantitative portion of this study, a logistic regression was used to determine if the EOF program has an effect on retention. The selection of this model was influenced by the literature review. Logistic Regression is used in Tinto's model (1987) where he used the dichotomous nature of retention (whether a student was retained (1) or not retained (0) as the dependent variable. Logistic regression is also used in several other studies (Pascarella & Terenzini, 1980; Watson, 2016) when retention was a binary, dependent variable. Generally, logistic regression is well suited for describing and testing hypotheses about relationships between a categorical outcome variable (retention) and one or more categorical or continuous predictor variables (EOF program) (Peng et.al.,2002). Fundamentally, the logistic model predicts the logit of *Y* from *X*. The logit is

the natural logarithm (ln) of odds of *Y*, and the odds are ratios of probabilities (π) of *Y* happening (i.e., a student is retained) to probabilities of *Y* not happening (i.e., a student not being retained).

In this case, the simple logistic model with only the EOF program below is used:

logit (Y) = naturallog(odds) =
$$\ln\left(\frac{\pi}{1-\pi}\right) = \alpha + \beta X$$
 (1)

where *Y* is whether a student is retained (*Y*=1) or not (*Y*=0), and the regression coefficient (β) is the logit (previously explained), and X is being in the EOF program (x=1) or not being in the EOF program (x=0). Taking the antilog of the previous equation, we can arrive at the below equation to predict the probability of student retention as follows:

$$\pi = Probability(Y|X = x) = \frac{e^{\alpha + \beta x}}{1 + e^{\alpha + \beta x}}$$
(2)

where π is the probability of being retained, α is the Y intercept, β is the regression coefficient, and e=2.71828, which is the base of the system of natural logarithms (Peng, et.al., 2002). In this case, X is the predictor, which is being in the EOF program.

Since being in the EOF program is not the only predictor for retention, it is important to extend the logistic regression to include multiple predictors. For this model, the additional predictors of retention (Being in the EOF program= X_0 , gender= X_1 , campus= X_2 , district factor group school= X_3 , high distress municipality= X_4 school lunch program= X_5 , college prep program= X_6 , EOF sibling X_7 , parent education X_8 , household adjusted gross income= X_9 , estimated family contribution= X_{10} , SAT score= X_{11} , high school GPA= X_{12} , high school percentile rank= X_{13} , ACT score= X_{14} , age at start= X_{15} , first term GPA= X_{16} , second term GPA= X_{17} , first year GPA= X_{18} , third term GPA= X_{19} , second year GPA= X_{20}) produce a more complex logistic regression for retention. In this study, retention is evaluated at the beginning of sophomore year, Y_1 , and at the beginning of junior year, Y_2 , and hence, there are two equations. For sophomore retention, the model is represented as follows:

logit (
$$Y_1$$
) = ln $\left(\frac{\pi}{1-\pi}\right)$ = $\alpha + \beta_0 X_0 \dots + \beta_n X_n$ (3)

where:

$$\pi = Probability(Y_1|X_0 = x_0, \dots X_n = x_n,) = \frac{e^{\alpha + \beta_0 X_0 + \dots + \beta_n X_n}}{1 + e^{\alpha + \beta_0 X_0 + \dots + \beta_n X_n}}$$
(4)

For junior retention the same equation applies, but Y denotes whether a student was retained at the beginning of junior year:

logit (Y₂) = ln
$$\left(\frac{\pi}{1-\pi}\right)$$
 = $\alpha + \beta_0 X_0 + \dots + \beta_n X_n$ (5)

where:

$$\pi = Probability(Y_2|X_0 = x_0, \dots X_n = x_n,) = \frac{e^{\alpha + \beta_0 X_0 + \dots + \beta_n X_n}}{1 + e^{\alpha + \beta_0 X_0 + \dots + \beta_n X_n}}$$
(6)

The null hypothesis underlying the models states that all β s equal zero. Rejecting the null hypothesis implies that at least one β is not equal to zero in the population, which means that the logistic regression equation predicts the probability of the outcome (that a student is retained) better than the mean of the dependent variable *Y* (retention) (Peng et. Al., 2002). The interpretation of the results will be rendered in the next chapter using the odds ratio for both categorical and continuous predictors.

Method of Analysis- Qualitative Analysis

To evaluate the results of the questionnaire, this study uses two distinct methods: first, for the closed questions, a cross-tabulation of the results through frequency of occurrence based on campus. For each question response, the mean of the responses is calculated and cross-tabulated based on the campus the student indicated they were from. Second, for the open-ended questions, an inductive content analysis is used to identify themes in the responses that could be coded and subsequently analyzed. According to Erickson (1986), to analyze data from qualitative studies is to "generate empirical assertions, largely through induction" and to "establish an evidentiary warrant" for these assertions by systematically searching for data that confirms or does not confirm the study. Based on this method, the open-ended responses were reviewed in its entirety in order to derive the empirical assertions that were previously mentioned in the literature such as family, mentorship, and finances, all of which are predictors of retention that are not accounted for in the university dataset. These responses were coded using conceptdriven coding. Concept-driven coding is a way of indexing or categorizing the text in order to establish a framework of thematic ideas about it based on the research presented in the literature (Gibbs, 2007). Lastly, as a means of establishing the validity of the assertions made in the inductive content analysis, excerpts from the responses themselves are presented to further illustrate the logic of the analysis (Smith & Shepard, 1988).

Chapter 4 QUANTITATIVE RESULTS

The purpose of this study was to determine whether retention rates differed between first-generation Latino students in the EOF program and first-generation Latino students not in the EOF program at Rutgers University's three campuses. The results revealed that this is a program that is effective and should be mirrored to increase Latino student retention across the state of New Jersey for students that may not have been admitted via the EOF program. Several surveys were conducted using a sample of ten years of first-generation Latino students at Rutgers, The State University of New Jersey. Descriptive statistics were used to determine the program trends; logistic regression, a chi2 test of significance, and anova test was used to analyze the relationship between student retention and factors including demographics, academics, neighborhood, income, and college experience; and lastly, a survey questionnaire was used to develop coded themes that influenced first-generation Latino student retention. Research was conducted on a group of self-identified first-generation Latino students at Rutgers University between the years 2007and 2017 from a dataset provided by Rutgers University.

Rutgers University's three campuses operate as separate university chancellor units with distinct admissions criteria and governing bodies. As such, each university has slightly different criteria for their distinct EOF programs that parallel their admissions criteria for the general population of students. The criteria for admitting an EOF student is usually about 5 percent below the criteria for a non-EOF student regardless of firstgeneration affiliation, race, neighborhood or finances. The analysis in this study examines both the entire population of first-generation Latino students at Rutgers University and the individual campus breakdowns.

Descriptive Analysis

Descriptive statistics for all variables are provided in Table 1 for first- generation Latinos at Rutgers between 2007 and 2017. All students in the dataset are considered first-generation, which means their parents did not complete college or university; however, the parent education indicators specify which parent, if any, attempted to earn a college degree. In table 1, of the first-generation Latinos in Rutgers University EOF programs, 74.7 percent were in New Brunswick, 17.4 percent in Newark and 7.9 percent in Camden. These proportions are consistent with the proportions of the university sizes. Each campus has slightly different criteria to be admitted into the university, which explains the differences in SAT scores, ACT scores, High School GPA, and percentile rank. Other criteria, however, such as adjusted gross income and estimated family contribution are consistent.

Retention was consistent with the involvement literature for all campuses, except Camden. Of the entire population of first-generation Latino students in the EOF program (N=1,158), 91 percent were retained for Sophomore year and 84 percent were retained Junior year. These rates were higher than the first-generation Latino students that were not in the EOF program (N=3,373), of which 86 percent were retained during the sophomore year, and 79 percent were retained in the junior year.

For New Brunswick, of the first-generation Latino students in the EOF program (N=865), 92 percent were retained for Sophomore year and 86 percent were retained Junior year. These rates were higher than the first-generation Latino students not in the EOF program (N=2,028) in New Brunswick. 86 percent were retained during the

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sophomore year, and 84 percent of students not in the EOF program were retained in the junior year.

In Newark, of the first-generation Latino students in the EOF program (N=202), 91 percent were retained for sophomore year and 84 percent were retained junior year. Of the first-generation Latino students that were not in the EOF program, 86 percent were retained during the sophomore year, and 79 percent were retained in the junior year.

In Camden, first-generation Latino students not in the EOF program are retained at slightly higher rates. Of the first-generation Latino students in the EOF program in Camden, 77 percent were retained for sophomore year, and 62 percent were retained their junior year. However, of the first-generation Latino students that were not in the EOF program, 80 percent were retained in the sophomore year, and 69 percent in the junior year. There are many things that contribute to these lower rates including lack of institutional resources and academic support for these students while in college. Students at Rutgers–Camden enter the EOF program less academically prepared than any other population.

Table 1: Descriptive Statistics (Percentages and Means) of first-generation Latino students at All Rutgers Universities, Rutgers University-New Brunswick, Rutgers University-Newark, and Rutgers University-Camden between 2007 and 2017 in the EOF program and not in the EOF program.

University-Camden between 2007 and 2017 in the EOF program and not in the EOF program.									
	A	11	New Br	runswick	New	vark	Car	Camden	
	EOF	Non-	EOF	Non-	EOF	Non-	EOF	Non-	
		EOF		EOF		EOF		EOF	
Percentages									
Retained Yr1 to Yr2	91.02	86.04	91.79	86.04	94.06	82.11	76.92	80.00	
Retained Yr2 to Yr3	83.85	79.16	86.47	84.27	82.67	72.03	61.54	69.49	
New Brunswick	-	-	74.7	60.1	-	-	-	-	
Newark	-	-	-	-	17.4	31.2	-	-	
Camden	-	-	-	-	-	-	7.9	8.7	
Female	62.8	53.7	60.6	52.4	70.8	55.0	65.9	59.0	
DFG School ₁	61.1	42.5	58.4	36.8	73.3	53.0	59.3	44.8	
HDM ₂	85.4	65.4	85.0	58.8	87.6	78.4	84.6	64.8	
NSL ₃	90.6	51.8	89.5	47.0	95.5	60.5	90.1	53.9	
College Prep	21.9	13.6	21.2	12.8	24.3	13.7	23.1	18.6	
EOF Sibling	12.4	2.0	14.0	2.0	7.4	1.6	8.8	3.1	
Parent Education ₄									
Father College	20.8	33.5	19.4	35.3	20.8	29.6	34.1	35.3	
Mother College	13.3	27.3	12.6	29.5	14.9	23.3	16.5	26.4	
Both Parents Col	6.8	17.0	5.9	19.1	8.4	13.2	12.1	15.3	
No Parents Col	72.7	56.1	73.9	54.3	72.8	60.3	61.5	53.6	
Father Only Col.	14.0	16.6	13.5	16.2	12.4	16.4	22.0	20.0	
Mother Only Co	6.5	10.3	6.7	10.4	6.4	10.1	4.4	11.1	
Means									
Household AGI	22442	55353	22533	60637	22419	44004	21643	48830	
Est. Family Cont.	220	6685	231	7978	190	5190	169	4242	
SAT Score	1080	1150	1107	1200	1019	1089	964	1064	
ACT Score	20	23	21	24	19	21	18	20	
HS GPA	3.51	3.58	3.58	3.70	3.36	3.42	3.20	3.34	
HS Percentile	80.18	79.28	82.73	83.60	74.59	74.45	66.28	68.93	
Age at Start	18.03	18.06	18.04	18.02	18.00	18.10	18.08	18.20	
First Term GPA	2.73	2.91	2.76	2.96	2.73	2.85	2.48	2.74	
Second Term GPA	2.83	2.99	2.82	3.01	2.92	2.98	2.77	2.81	
First Year GPA	2.86	2.99	2.85	2.99	2.95	2.99	2.76	2.91	
Third Term GPA	2.92	3.06	2.92	3.09	3.05	3.05	2.65	2.89	
Second Year GPA	2.91	3.03	2.90	3.03	3.02	3.04	2.80	2.97	

DFG School₁ Students in District Factor Group School A or B; HDM₂ High Distress Municipality; NSL₃ National School Lunch Program; Parent Education₄ defined as whether parent attended college regardless of completion.

Although there are observable differences among the three campuses, a chi-square test of independence was performed to examine the relationship between being in the EOF program and being retained, statistically. Overall, the relationship between being in the EOF program and being retained was significant for sophomore year $X^2(1, N = 1,054) = 19.12$, p=0.000 as well as for junior year $X^2(1, N = 971) = 11.89$, p=0.001, meaning that students in the EOF program were more likely to be retained than students

not in the EOF program. When examining the individual campuses, however, there are differences.

There is a significant relationship between being in the EOF program and being retained sophomore year for New Brunswick $X^2(1, N = 794) = 5.33, p=0.021$, but there is no significant association between being in the EOF program and being retained junior year $X^2(1, N = 748) = 2.300, p=0.129$ for this campus. However, for Newark, there is an association between being in the program and being retained for sophomore year, $X^2(1, N = 190) = 17.85, p=0.00$, as well as for junior year $X^2(1, N = 167) = 9.80, p=0.002$. In Camden, there was no association between being in the EOF program and being retained sophomore year $X^2(1, N = 70) = 0.400, p=0.527$ or junior year $X^2(1, N = 56) = 2.00, p=0.156$.

In order to test whether there is a difference in the EOF program itself among the three campuses, an ANOVA test was conducted. The ANOVA, or analysis of variance, tests whether three or more populations are statistically different from each other. In this case, this tests whether there is a statistical difference between the three campuses in order to make appropriate assumptions in the next section. This model tested the null hypothesis of whether the means across the three campuses are equal. Based on table 3, statistically, all variables appear to have equal means with the exception of household income, which has a p-value of 0.008. This indicates that statistically, the mean household income across the three campuses is different. The age at start also appears to be different with a 0.049 p-value, but only slightly.

Newark, and Rutgers University-Camden.							
		Num	ber of Obvs=267	R-Squared=0.8519			
		Ro	ot MSE= .57583	Adjusted R-Squared=0.2423			
Source	Partial SS	Df	MS	MS F J			
Model	99.170	214	.4634	1.40	0.0762		
Age at Start	3.3975	4	.8494	2.56	0.0492		
SAT Score	24.537	56	.4382	1.32	0.1558		
ACT Score	8.9842	20	.4492	1.35	0.1888		
Est. fam contr	38.177	128	.2982	0.90	0.6880		
House Inc. (AGI)	2.4754	1	2.475	7.47	0.0086		
First Term GPA	.24653	1	.0246	0.07	0.7862		
Second Term GPA	.21489	1	.2149	0.65	0.4245		
First Year GPA	.03437	1	.0344	0.10	0.7488		
Third Term GPA	.00043	1	.0004	0.00	0.9714		
Second Year GPA	.05665	1	.0567	0.17	0.6811		
Residual	17.24	52	.3315				
Total	116.41	266	.4376				

Table 2: ANOVA test of variance of each of Rutgers University-New Brunswick, Rutgers University-Newark, and Rutgers University-Camden

Regression Results

To predict the odds of being retained sophomore or junior year based on EOF program involvement; four models were applied based on equations 3, 4, 5, and 6 respectively from the previous chapter. The first model tested the odds of being retained sophomore year if a student was in the EOF program. Without controlling for any other variables, students in the EOF program were 53 times more likely to retain using the base comparison to New Brunswick students. This value was obtained by taking the exponent of the coefficient, which was statistically significant. Across all models, compared to students in New Brunswick, students in Camden and Newark are less likely to retain.

The second model included other predictors of retention including high school performance, neighborhood effects such as poverty, and income for sophomore year retention. The EOF program increased the odds of sophomore retention when controlling for other variables, but was not statistically significant. The outcome was similar for junior retention. Students in the EOF program were 23 times more likely to retain using the base comparison to New Brunswick. However, when controlling for other predictors of retention in model 4, the EOF program was not statistically significant. It is important to note that reasons for retention are complex, and are often attributed to a combination of attributes.

Table 3: Logistic Regression Predicting Sophomore Retention and Junior Retention using Rutgers–New Brunswick as the base case.

	Sophomore Retention		Junior Retention		
	(1)	(2)	(3)	(4)	
EOF Program	0.428***	0.220	0.213**	0.084	
	(0.116)	(1.890)	(0.092)	(0.505)	
Newark	-0.463***	-0.880	-0.670***	-0.169	
	(0.100)	(1.737)	(0.083)	(0.438)	
Camden	-0.812***	16.424	-0.981***	0.684	
	(0.140)	(6, 327.740)	(0.121)	(1.173)	
Female		0.590		0.393	
		(1.707)		(0.388)	
DFG School		1.006		-1.313**	
		(1.757)		(0.564)	
HDM		1.062		1.178**	
		(2.108)		(0.575)	
NSL		-1.305		0.007	
		(2.065)		(0.528)	
College Prep		-1.881		0.232	
		(1.640)		(0.504)	
EOF Sibling		19.008		15.868	
		(2,890.793)		(782.599)	
Parent Education		-1.449		-0.286	
		(1.591)		(0.407)	
House Inc. (AGI)		-0.00002		-0.00001**	
		(0.00002)		(0.00000)	
SAT		-0.017		0.004	
		(0.014)		(0.003)	
High School GPA		5.282		-0.200	
		(4.396)		(0.868)	
High School RANK		-0.057		0.013	
		(0.064)		(0.017)	
ACT		0.206		-0.039	
		(0.373)		(0.080)	
Age at start		0.415		-0.088	
		(1.915)		(0.160)	
Constant	2.062***	-5.431	1.669***	-0.576	
	(0.067)	(32.312)	(0.058)	(3.727)	
Observations	4.531	180	4.531	278	
Observations	4,531	180	4,531	278	

*p<0.1; **p<0.05; ***p<0.01

Note: DFG group is Students in District Factor Group School A or B; HDM represents High Distress Municipality; NSL is National School Lunch Program; and parent education is defined as whether parent attended college regardless of completion.

Chapter 5 Survey Questionnaire Results

A survey (Appendix 3) was distributed via Qualtrics to the 4,531 first-generation Latino students represented in the previous studies. Of the entire population, 401 students responded, of which: 31 (9.7 percent) attended Rutgers University–Camden; 75 (23.5 percent) attended Rutgers University–Newark; and 213 (66.8 percent) attended Rutgers University–New Brunswick. These results mirror the distribution in the sample, which is 8.52 percent Rutgers–Camden, 27.65 percent Rutgers–Newark, and 63.8 percent Rutgers–New Brunswick. Overall, 30.55 percent of the students who responded to the survey were in the EOF program. 369 were retained from first to second year and 359 were retained from second to third year. To mirror the previous analyses, the results of the survey have been separated into three categories: Pre-College experience, In-College experiences, and an analysis of the answers to three open-ended questions that aimed to extract some of the topics discussed in the literature specific to first-generation Latino students, such as familismo and ideas of community.

Table 5 represents the student response averages based on each of the three campuses. Overall, family was very involved in students' decision to attend college. For students in Camden, family involvement was lower than that of the other two campuses, which may help explain the lower overall retention. All students have comparable high levels of involvement with high school teachers and counselors. While parents were involved in the decision to attend college, they were less likely to be involved in selection of major. While many first-generation parents want their students to attend college, they may not have the tools to influence decisions such as college major.

Table 4: Pre-College influencers in college attendance for first-generation Latino students.					
	Mean				
Question	Background Characteristics	All	Camden	Newark	NB
Q4	Degree Sought (1=none 4=doctorate)	2.63	2.48	2.55	2.68
Q5	Family involvement in decision to attend (1= not at all 4=very involved)	3.06	2.45	3.23	3.09
Q6	HS Teacher Support (1=not supportive 4=very supportive)	3.60	3.61	3.59	3.61
Q29	HS Counselor Support (1=not supportive 4=very supportive)	3.49	3.32	3.49	3.51
Q7	Out of School Program (1=yes 2=no)	1.82	1.84	1.75	1.84
Q12	Parent Importance in major decision (1= extremely important 5= not at all)	3.66	3.87	3.52	3.68
Q13	Other family major influence (1= extremely important 5= not at all)	4.37	4.35	4.15	4.45

Table 6 represents students' experiences while in college and their association to the university, faculty, and friends. Similar to table 5, which denotes pre-college influencers, most students had strong family involvement in their decision to continue in college after they started. In fact, family was the strongest indicator of influencers of student retention. Family encouragement was overwhelmingly the highest influencer on retention. Most students in the EOF program neither agreed nor disagreed that the program influenced their decision to complete college. Appendix 4 outlines the specific response percentages.

New Brunswick						
	Mean					
Retention Influencers	All	Camden	Newark	NB		
Faculty Interest	5.32	5.45	5.21	5.29		
Faculty encouragement	4.58	4.68	4.88	4.17		
Friends (College) encouragement	5.26	5.32	5.17	5.28		
Friends (Home) encouragement	5.06	5.00	5.25	4.94		
Family encouragement	6.22	5.87	6.44	6.34		
Close Relationships	5.46	5.55	5.13	5.70		
EOF relationships (if any)	3.81	3.81	3.71	3.92		
Discrimination	4.05	4.00	4.16	3.98		

Table 5: College Experience Influencers on retention: All Students: Camden: Newark:

(1=Strongly Disagree 7=Strongly Agree)

The third section of the survey asked three open-ended questions and used qualitative content analysis to evaluate the content of the answers. Qualitative content analysis represents a systematic and objective means of describing and quantifying the data (Downe-Wamboldt, 1992; Schreier, 2012) and it requires that data can be reduced to concepts that describe the research (Cavanagh, 1997; Elo & Kyngäs, 2008; Hsieh & Shannon, 2005) by creating categories, concepts, a model, a conceptual system, or a conceptual map (Elo & Kyngäs, 2008; Morgan, 1993; Weber, 1990).

Inductive content analysis uses the process of abstraction to reduce and group data so that researchers can answer the study questions using concepts, categories, or themes (Elo & Kyngäs, 2008). After a unit of analysis has been chosen, open codes are chosen, which then form themes (Elo & Kyngäs, 2008). The identified concepts, categories, and themes (or main concepts, categories, and themes) serve as the basis for reporting content analysis results. For open-ended Question 17-"What/who were the largest influencers in your decision to continue or complete college?"-and Question 18-"Please specify if there is anything else that contributed to your decision to stay and/or complete college"-

Family/familismo, mentorship, and finances were the three most recurring themes after the coding process.

The responses to Question 17—"What/who were the largest influencers in your decision to continue or complete college?"—were categorized using the most repeated words identified by a text word count: mother, father, son, dad, mom, brother, grandmother, husband, sister, boyfriend, parent, aunt, uncle, and family. These words revealed the theme of family among the responses. 66.2 percent of the students who took the survey discussed family as the largest influencer in their decision to continue or complete college (Q17). Familismo is the concept that Latinos have (a) perceived obligation to provide material and emotional support to the members of the extended. family; (b) reliance on relatives for help and support; and (c) the perception of relatives as behavioral and attitudinal referents (Santiago-Rivera, 2003). These results confirm the analyses in the previous section, where family was the highest indicator in student retention.

The following quotes encompass the recurring sentiments in the responses:

My parents- even though they did not push me to go to college, I wanted to graduate so they can see that coming to the USA was not a waste and that I will financially help them when I get a job. Just like they have been doing for me all my life. Its [sic] time for me to pay them back for everything they do for my brothers and I.–

(Fall 2016 graduate of Rutgers-New Brunswick)

My mother is a huge influence on me continuing and completing college. She got pregnant with me at a very young age leading to her not being able to continue her education and I feel as if I owe it to her to do something and prove that she has made the right decisions with raising me.

(Fall 2015 Rutgers-Camden student)

My family, my parents because they came to this country for me and my brother

to do well and my brother because I saw how ambitious he was with college/education.

(Fall 2012 Rutgers-Newark student)

Although the literature supports the theme of family, the sense of responsibility and obligation were revealed in the responses by words and phrases such as "time to pay," "owe," and "because they came to this country for me to do well."

The responses to Question 24—"Please specify if there is anything else that contributed to your decision to stay and/or complete college"—mirrored Question 17's responses: Family was also the most recurrent and frequent theme with 29.27 percent of respondents in this category. Some of the students' responses introduced the leap from education to having financial stability and being able to support their low-income families:

I want to provide generational wealth, and help contribute to my family. The only way I knew I can do that is by going to college and getting an education. (Fall 2016, Rutgers-Camden student)

My love for knowledge and my want to get my family out of a low income neighborhood.

(Fall 2015 Rutgers-Camden student)

The only way that I could provide for myself and my low income family is to actually get my degree and have a profession. I always remember that my parents raised me in the US in order to have this opportunity to get an education that they could not have.

(Fall 2017 Rutgers-Newark student)

The second most recurring words established themes of mentorship and finances.

The mentorship theme was created and coded using the following recurring words:

faculty, counselor, educator, school, campus, professor, alumna, mentor, eof, carlos,

jackie, christina, george, jason, robinson, ms., mrs., mr, dr, santana, martha, counselor,

director, teacher, program and club. 19.86 percent of respondents to Question 17 and

12.89 percent of respondents to Question 24 mentioned mentorship. The following quotes

represent some of the types of responses from students at each of the campuses:

My family influenced me the most. Also my counselor, close friends, and two professors influenced me to complete college.

(Fall 2017 Rutgers–Camden student)

HLLC [Honors Living Learning Community] and my best friend. (Fall 2016 Rutgers–Newark student)

My SEBS EOF team: Dr. Moore, Dean Sabb, Ms. Damarys, Ms. Ileana, Mrs. Wyatt, Mrs. Jackie and Mrs. Martha. Undoubtedly, they are the best team at Rutgers. Their love for their students and for their students' educations are unmatched anywhere else.

(Fall 2014 Rutgers-New Brunswick student)

The finances theme was created by the following repeated words: scholarship,

cost, pay, finance, financial, aid, job, tuition, and money. 5.23 percent of respondents to

Question 17 mentioned finances:

Money. I needed money to finish. (Fall 2016 Rutgers–Camden student not retained in 2017)

A job with better pay so I do not struggle like my family has. (Fall 2017 Rutgers–New Brunswick student)

However, in Question 24, the finance theme was more pronounced: 16.72 percent

of respondents to Question 24 mentioned finances as a factor in their retention. The

following quotes holistically encompass the sentiment of the finance topic:

When I was forced to start commuting (living about an hour away from campus) and taking on two part time jobs due to financial strain, it was very difficult and I often considered leaving Rutgers.

(Fall 2015 Rutgers-Camden student)

What contributed most against it was the financial burden each semester. (Fall 2013 Rutgers–Newark student) Overall, the responses in the open-ended questions and the coded themes of family, mentorship, and finances mirrored both the literature and the prior quantitative approaches.

The survey helped further explain the quantitative analysis from chapter 4 and introduced additional influences in first-generation Latino student retention such as family and mentorship. While finances did not appear significant in the prior section, it was a recurring theme in the survey responses. This difference is significant because the discrepancy can help explain other factors such as how much a student is struggling in order to be retained even if, in fact, they are retained from one year to the next.

Chapter 6 CONCLUSIONS, IMPLICATIONS, and RECOMMENDATIONS

Conclusions and Recommendations for Future Research

This study revealed how the Educational Opportunity Fund (EOF) program at Rutgers, The State University of New Jersey impacts first-generation Latino student retention and concludes that, although first-generation Latino students in the EOF program retain at slightly higher rates than first-generation Latino students not in the EOF program, the differences are marginally significant. First-generation Latino students who join the EOF program come in to the university less academically prepared and less financially stable than their peers; without the program, these conditions would lead to even lower retention rates. The survey results further revealed that family is the first, most prevalent theme and highest influencer for first-generation Latino student retention who are both in and not in the EOF program. This discovery is consistent with the literature that family is one of the most important cultural values among Latinos. The survey results also revealed that mentorship is the second most prevalent theme for student retention and, by providing mentorship, the EOF program impacts firstgeneration Latino student retention. These items, which were not in the regression, are important factors the EOF program provides that influence retention rates.

Retention rates for first-generation Latino sophomores and juniors in the EOF program were higher than first-generation Latino students not in the program at Rutgers– New Brunswick and Rutgers–Newark, but not at Rutgers–Camden. This disparity can be explained by the lower academic entrance criteria in Camden overall as well as the lower amount of resources and mentorship opportunities between 2007 and 2017. The results of this study provide insights that contribute to our knowledge of student retention and could help institutions implement strategies to promote student success among first-generation Latinos. Specifically, families should be more involved in the college process as their involvement has consistently shown to influence college retention. For Rutgers University–Camden, there were lower retention rates overall, which coincided with lower family involvement, as well.

The components of the program, such as mentorship, are proven to have a higher effect on first-generation Latino student retention. Institutions must look for ways some of the elements of the program, such as one-on-one mentorship, can be replicated for all first-generation Latino students in order to further improve retention. The EOF program is a model that should be replicated specifically to encourage students to attend college who would not have otherwise attended. We begin to make strides toward some of the larger problems of poverty in Latino communities when the higher education community implements proven strategies to improve retention for first-generation Latinos, which will ultimately impact the entire country.

Overall, this study is also intended to inform policy and intervention efforts aimed at achieving equity at Rutgers, the State University of New Jersey among first-generation Latino students by providing empirically and theoretically-based evidence regarding the impact of the EOF program on retention rates and academic preparation, experiences, and success. Two Rutgers University campuses' EOF programs (Newark and New Brunswick) redesigned their institutional culture, teaching practices, and academic support services to be more inclusive of first-generation EOF Latino college students. This can be reflected in the differences of retention rates. Rutgers–Camden's EOF program lacks the financial resources, the diversity-hiring to be inclusive of Latino staff, the physical space to accommodate student needs, the research, and the training necessary to show teaching faculty how to retain and support these students. There is substantial economic disparity of EOF resources and capital between Rutgers–New Brunswick and the other two campuses. Newark and Camden are considered less affluent since they are both located in urban areas where majority of the community of first-generation Latinos is immigrant and poor.

All Rutgers EOF programs need to integrate first-generation Latino students with the rest of the campus community to be inclusive, build a community of learners, allow for diversity of ideas, and end the class divide. All three Rutgers campuses offer required courses in a variety of different formats (hybrid, on-line, face-to-face) and timings (between semesters, during summers). However, the EOF program does not offer first-generation Latino students summer online required courses, only remedial upon entry.

All three Rutgers campuses need to recruit and hire more Latino faculty members to act as role models and show Latino students that it is possible for them to achieve their academic goals. All three Rutgers campuses also need to assign traditional faculty advisors to first-generation Latino students to build sensitivity, cultural awareness, and competence. For example, in Rutgers–Camden, Bridging the Gap, a new program to improve first-generation minority student enrollment, was able to change faculty's bias and low expectations by influencing teaching practices tailored to support first-generation Latino students benefit from the inclusion of diversity practices (Federal Reserve Bank, 2018).

All three Rutgers campuses can benefit from including Latino parents in campus recruitment and retention efforts for first-generation Latino students. Given that Latino families are the number one influencer in Latino student retention at all three Rutgers campuses, as their main indicator for student retention success, there is a need to focus marketing and branding on first-generation Latino students by featuring positive success stories of Latino families in social media and through other forms of communication.

First-generation Latino students who participate in dual enrollment and early college are retained at higher rates, and graduate on time. Rutgers must provide dedicated spaces for first-generation Latino students to socialize into mainstream campus development activities and cultural celebrations. Coaching and mentoring programs, specifically for first-generation Latino students, should be established within each Rutgers campus. Rutgers needs to allocate more monetary incentives in the forms of financial aid and scholarships for first-generation Latino students.

Finally, as a conclusion of this research, there are four recommendations for future research that would strengthen the body of knowledge on first-generation Latino students. The first is to analyze and expand on other public universities retention rates and patterns with EOF programs for comparison of their effectiveness of graduation rates of first-generation Latino students. Second, conduct further research on first-generation Latino student success, retention rates, and graduation rates at all Rutgers campuses. Third, investigate first-generation Latino and non-Latino Rutgers EOF students who transfer to other universities due to the academic, social, and economic challenges they face. Lastly, conduct more research on first-generation Latino students from the K-12 pipelines and

observe their transition to EOF programs to better understand and sustain the effects of early intervention.

Theoretical Implications

This research was based on previous theoretical models of student retention (Tinto, 1975; Tinto, 1993; Astin, 1984; Bean, 1985; Bean & Metzner, 1985; Pascarella, 1985; Cabrera et al., 1992; Braxton et al., 2011) and was developed to focus specifically on first-generation Latino student retention via the EOF program. Although the quantitative study revealed that EOF only had a marginal effect, other aspects, which the EOF program offers, such as family and mentorship, are important determinants of student retention. The limited number of prior studies on first-generation Latino student retention using state-funded programs as a retention tool paired with these findings suggest that additional research is necessary to fully investigate what elements of support service programs would work specifically for first-generation Latinos. This study identifies the EOF program, a state-funded program, as a tool to increase student retention among first-generation Latino students.

Limitations and Challenges

The findings varied among the three Rutgers University campuses. For Rutgers University–Camden, The difference in retention rates between first-generation Latino students in the EOF program versus not in the EOF program at Rutgers University– Camden was significantly smaller than the difference in retention rates between firstgeneration Latino students in the EOF program versus not in the EOF program at Rutgers University–Newark and Rutgers University–New Brunswick. Evaluating the EOF program, staff distribution, and allocation of funds at each of the three campuses could
offer additional insight into the EOF programs at each campus and reveal what they are doing differently at a programmatic level that may be influencing the differences in retention rates. Using program evaluation and interviewing the program leaders at each campus will allow future researchers to gain unique perspectives on retention factors, including in-depth observations, a community capital scan, and focus studies of the social and academic environment of first-generation Latino students in the EOF program.

There were a series of limitations that influenced the outcome of this work. As a staff person researcher in the Rutgers admissions office, I have unique knowledge and access to systems within the three Rutgers Campuses, so I had to remain objective in my research and analysis of the data. On several occasions, this research could have led to changes that would impact its outcomes. However, I needed to remain objective. State archival information and research about EOF programs and first-generation students was limited as well as Rutgers-specific information. For example, Pell grant recipient information and specific Latino group association is not available.

One overall limitation of this study was its sole focus on the retention of firsttime, first-year Latino students. This study did not consider transfer students. Because of the perceived costs associated with a four-year institution, it is most common for firstgeneration students to first attend community college and then transfer to a four-year institution (Watson, 2016). This provides an opportunity for future studies to focus on a student's individual journey and not at one particular university.

The point at which retention is evaluated is another limitation of this study. Retention is a continuous process throughout a student's time at a university. However, in this study, there was a set point in time—the beginning of the second semester and the beginning of the third semester—that retention was measured. This study's set evaluation point makes it impossible to evaluate stop outs, which are students who leave their university, typically due to a life circumstance, but eventually re-enroll and complete their study. Because this study focuses on one institution and does not follow students when they are no longer enrolled, it cannot identify whether students who discontinued their study at Rutgers transferred and ultimately graduated from another university.

The use of a single state and single university system can limit the generalizability of the study. Although the Rutgers system comprises three separate and distinct university campuses—Rutgers University–Camden, Rutgers University–Newark, and Rutgers University–New Brunswick—previous retention studies have indicated that doing retention studies at only one institution or type of institution is a limitation (Kiser & Price, 2008; Leppel, 2002; Nguyen, Hays, & Wetstein, 2010; Reason, 2009; Strauss & Volkwein, 2004). This single case study of Rutgers can be expanded to a comparative study, first to other public universities in the state of New Jersey and later to other states of interest.

The final limitation was selection bias. The EOF program is a voluntary program. Students choose whether to apply to the EOF program when filling out their admissions application and are admitted to the program based on the state's criteria. It is possible that there are students who are qualified for the EOF program but are neither aware of the EOF program's existence nor of their eligibility and therefore neglect to apply. Consequently, students who are inherently more motivated and have looked into their options are more likely to apply to the EOF program; whereas, students who are inherently less motivated and therefore who perhaps need the program more may not have applied to the program. The relationship between motivation and applying to a program like the EOF program can influence retention and cause a fallacy in correlation versus causation for the EOF program's influence on retention. Selection bias can be overcome with better and more extensive outreach in high schools that make the EOF program more well-known as a program of choice. In future research, identifying intent can be a factor for retention.

Discussion

One of the most urgent threats to the American education system is the disproportionate resource allocation based on the exponential Latino population growth. Latinos are the most rapidly growing ethnic minority in the country and are also the least educated. The EOF program can be used as a tool to provide an environment for first-generation Latino students to be able to thrive.

In order to focus on national growth and sustainable community development, there needs to be a substantial national shift in focus to Latino education. Given the high population of Latinos in the program (36 percent) across the state, there is much that can be learned in addressing and preparing these students for success. Evaluation of the EOF program is the first step in changing Latino communities for the better by influencing college-going and ultimately creating a more educated society.

DEFINITION OF TERMS

EOF - Educational Opportunity Fund program in New Jersey created in 1968 to address the disparities of low-income First-generation students meeting High Poverty Criteria (NJ.gov, 2019).

Latino(s) - A person of Latin American origin or descent (used as a gender-neutral or non-binary alternative to Latino or Latina) (Latino, 2019).

First-generation student - A student whose parent(s)/legal guardian(s) have not completed an associate's or bachelor's degree in the United States (Ishitani,2016).

First-generation Latino - A student who is both first-generation and Latino.

Retention - The continuous enrollment of students from one semester to the next

(Swecker et. al, 2013).

NJAS - New Jersey Application System.

FAMS - Financial Aid Merit System.

SRDB - Student Records Database

APPENDIX 1

PRECOLLEGE QUESTIONS:

- What is the highest degree you are hoping to attain? (1=none 2= Bachelors 3=Masters 4=Doctorate)
- 2. How involved was your family in your decision to attend college? (1=not at all 2=somewhat involved 3=very involved)
- 3. How encouraging were your high school teachers and counselors to attend college? (1=no support 4=extremely supportive)
- 4. How much time did you spend talking to teachers outside of class in high school? (1=never 4=very often)
- 5. Will you need extra time to complete your degree? (1=no chance 4=very good chance)
- 6. How Certain are you about your choice of major? (1=not certain 4=very certain)
- 7. How involved were your parents in your decision of your major? (1=not certain 4=very certain)

COLLEGE EXPERIENCES QUESTIONS:

- 1. The faculty I have had contact with are generally interested in students. (1=strongly disagree 5=strongly agree)
- 2. How many hours a week are you employed on campus?
- 3. How many hours per week are you employed off-campus?
- 4. Do you consider yourself a 'provider' for your family financially?
- 5. My friends from college encourage me to continue and finish my degree. (1=strongly disagree 5=strongly agree)
- 6. My friends from home encourage me to continue and finish my degree. (1=strongly disagree 5=strongly agree)
- 7. My family encourages me to continue and finish my degree. (1=strongly disagree 5=strongly agree)
- 8. I have developed close personal relationships with other students at Rutgers (1=strongly disagree 5=strongly agree)
- 9. I have developed close personal relationships with other students in the EOF program (1=strongly disagree 5=strongly agree)
- 10. I have personally experienced discrimination based on race (1=strongly disagree 5=strongly agree)

STAFF

- 1. What are the largest influencers for Latino first-generation EOF students? Elaborate.
- 2. Is the funding allotted to EOF students enough?
- 3. Do Latino first-generation students in the EOF program receive enough resources to influence graduation?

Note: Adapted from below source:

Terenzini, P., Springer, L., Yaeger, P., Pascarella, E., & Nora, A. (1996). First-Generation College Students: Characteristics, Experiences, and Cognitive Development. *Research in Higher Education*, *37*(1), 1-22. Retrieved from http://www.jstor.org.proxy.libraries.rutgers.edu/stable/40196208

APPENDIX 2

Historic Poverty Criteria (HPC) Code Overview: All EOF Eligible Students Must Have at Least One

HPC codes are automatically programmed and codified for all of our applicants on the NJAS system. Once applicant data appears on NJAS/IMS, an HPC code is automatically displayed. The data is displayed based on pre-programmed system logic with NJAS/IMS as follows:

- _**HPC** = 1: District Factor Group (DFG) A or B based on High School CEEB Code.
- _**HPC** = 2: High Distress Municipality (HDM), Labor Surplus, EUAM based on zip code.
- _HPC = 3: Pocket of Poverty based on a combination of factors not formally identified by NJ Dept. of Education.
- _**HPC** = **4**: Sibling EOF Self-reported by applicant. Not preprogrammed to map coding.
- _HPC = 5: First-generation College Student and family eligible for Government Assistance based on parents' education level being less that a bachelor's degree AND National School Lunch Program (NSLP) = Yes or parents' education level being less than bachelor's degree AND Welfare = Yes.
- _**HPC** = 6: Successful completion of NJ GEAR UP or NJ College Bound Grant program -

Self-reported by applicant. Not pre-programmed to map coding. Can be manually input. This system of pre-programmed HPC logic was put into place by undergraduate admissions when the state mandated this requirement for all EOF students pursuant to NJAC 9A:11-2.2 (NJ OSHE/EOF Regulations) or they would not receive the EOF Grant payment (Article III). We have been in compliance with the state requirement since its inception.

The Office of Financial Aid and EOF Directors at each respective EOF Program ensure every year that when the data for EOF enrolling students is submitted to the State the HPC data field is included so this required and important information stays is present on all Rutgers EOF lists/rosters/applicant directories. We code HPC code on the NJAS/IMS mainframe, element 9377 located on the NJAS/IMS FA-E Screen.

District Factor Group (DFG) A & B (Public and Non-Public) Secondary Schools by County

ATLANTIC COUNTY Atlantic City HS Buena Regional HS Hammonton HS Pleasantville HS St. Joseph's HS

BERGEN COUNTY Cliffuide Park HS Garfield HS Immaculate Conception HS Lodi HS Wallington HS

BURLINGTON COUNTY

Budington City HS Pemberton Township HS Rancocas Valley Regional HS Riverside HS Washington Township HS - Sewell

CAMDEN COUNTY

Camden Academy Charter HS Camden City Creative Arts HS Camden HS Dr. Charles E. Brimm Med Arts HS Gloucester Catholic HS Gloucester Catholic HS LEAP Academy-Camden Lindenwold HS Overbrook Regional HS-Fine Hill Thiton Regional HS-Runnemede Woodrow Wilson HS-Camden

CAPE MAY COUNTY

Cape May County Tech HS Lower Cape May Regional H5 – Cape May Middle Township HS Wildwood Catholie HS Wildwood HS

CUMBERLAND COUNTY

Bridgeton HS Cumberland Regional HS Millville HS Sacred Heart HS Vineland HS ESSEX COUNTY Arts HS - Newark Barringer HS-Newark Bishop Francis Essen Catholie-E.O. Central H5-Newark Chad Science Academy-Newark Cicely Tyson Performing/Fine Arts HS-E.O. Clifford J. Scott HS-E.O. East Orange HS East Side HS-Newark Essex County Vo-tech (13th) -Newark Essex County Vo-tech (W. Market)-Newark Irvington HS-Frank Morrell Malcom X. Shabazz-Newark North Star Academy Charter School - Newark Orange HS Our Lady of Good Counsel HS-Newark Science HS-Newark St Benedict's HS-Newark St. Vincent Academy-Newark Technology HS-Newark University HS - Newark Weequahic HS-Newark West Side HS-Newark

GLOUCESTER COUNTY Glassboro HS Paulsboro HS West Deptford HS - Westville

Woodbury HS HUDSON COUNTY Academy of St. Aloritur-J.C. CREATE Charter High School-J.C. Emerson HS-Violan City Hardson HS High Tech HS-North Bergen Heary Suyder-J.C. Hudson Catholic HS - J.C. Hudson County Schools of Technology – J.C. James Ferris HS -J.C. Keamy HS Liberty HS - J. C. Lincoln HS - J.C. MeNair Academic HS - J.C. Miftaahul Uloom Learning Center Memorial HS - West New York North Bergen HS St Aloysius HS - J.C. St. Anthony's HS - J.C. St. Dominic's Academy - J. C. St. Joseph's of the Palisades - West New York St. Mary's HS - J.C. St. Peter's Prep - J.C. Union City HS - Union City (merger of Emerson and Union Hill ÌHS) Union Hill HS - Union City William Dickinson HS - J.C. MERCER COUNTY

Trenton Central HS

MIDDLESEX COUNTY Carteret H5 Middlesex County Vo-tech H5-N.B. Middlesex County Vo-tech H5-P.A. New Bannswick H5 Perth Amboy H5 S. Feter's H5 - N.B.

MONMOUTH COUNTY Asbury Park HS Freehold Borough HS Keansburg HS Long Branch HS MORRIS COUNTY

Dover HS

OCEAN COUNTY Central Regional HS – Bayville Lakewood HS Manchester Township HS - Lakehurst Finelands Regional HS - Tuckerton

PASSAIC COUNTY

Eastride HS – Paterson International HS - Paterson JFK HS - Paterson Passaic Co Manchester Regional HS-Haledon Passeir HS Paterson Catholic Rosa Parks HS - Paterson

<u>SALEM COUNTY</u> Penns Grove HS Salem HS St. James HS- Carney's Point

SOMERSET COUNTY Bound Brook HS

UNION COUNTY

Ontor Gootk H5 - Roselle Benedictine Academy - Elizabeth Elizabeth H5 & Academie - (Dwyer Technology, Edicon Career & Technical, Elizabeth H5, Halsey Leadership, Hamilton Preparatory, and Jefferson Arts) Linden H5 Plainfield H5

St. Mary Assumption – Elizabeth St. Patrick's HS- Elizabeth

WARREN COUNTY Phillipsburg HS

The State of NJ Department of Education is working to update the DFGs using the latest available census data. The current DFGs are based on the 2000 Census. A district list and description of the calculations can be found <u>here</u>.

Educationally Disadvantaged Areas 2018

(HPC=1) DFG A & B - Designated by NJ Dept of Education based on 2000 census data. (HPC=2) High-Distress/Labor Surplus Areas: Designated by NJ Dept of Labor, effective 10/1/2004. (HPC=2) Eligible Urban Aid Municipality (EUAM): Designated by NJ Dept of Community Affairs & NJ Redevelopment Authority (NJRA).

Town	County	Town	County	Town	County	Town	County	Town	County
Alpha Boro(1)	Warren	Deerfield		Hoboken City(2)	Hudson	Newark City(1,2)	Essex	Seaside Park Boro(2)	Ocean
Asbury Park		Twp(1,2)	Cuntterikadi	Hillside Twp(2)	Union	New Brunswick		Shiloh(1,2)	Cumberland
City(1,2)	Monmouth	Dennis Twp(2)	(Gape:Way	Irvington Twp(1,2)	Essex	City(1,2)	Middlesex	Somerdale Boro(2)	Camden
Atlantic Cit (1,2)	Atlantic	Deptiond Twp(2)	Gloucester	Kearny(1,2)	Hudson	New Hanover	Dellaster	Somerspoint City(2)	Atlantic
Bayonne(2)	Hudson	Dover(1,2)	Morris	Keyport Boro(2)	Monmouth	Twp(1,2) Mosth Wildwood	Burington	Somerville Boro(2)	Somerset
Belleville(2)	Essex	Downe Twp(1,2) Replacement	Cumbertand	Lakehurst Boro(1,2)	Ocean	City(1.2)	Cane Max	South Amboy City(2)	Middlesex
Bellmawr	Constant	Two(1.2)	Ocean	Lakewood Twp(2)	Ocean	Ocean City(2)	Cape May	South Bound	
Boro(1,2)	Camden	East Newark	(recain	Lawnside Born/1 2)	Canden	Ocean Gate Boro(1.2)	Ocean	Brook(1)	Somerset
Deimar(2)	Monmouth	Boro(1,2)	Hudson	Lawrence Twp(1.2)	Cumberland	Old Bridge Twp.(2)	Middlesex	Stow Creek(2)	Cumberland
Berkeley Twp(1) Berkeley Twp(7)	Condea	East Orange(1,2)	Essex	Linden City(1.2)	Union	Orange City(1.2)	Fasey	Swedesboro- Weedwich (2)	Character
Bern Twp(2)	Carnoen	Edgewater Boro(2)	Bergen	Linderwold(1.2)	Canden	Passaic City(1.2)	Passaic	Wootwich(2)	Gioucester
Bloomfield	Durington	Edgewater Park		Little Egg Harbor	Carlore	Passaic Co Manchester		Trenton City(1,2)	Mercer
Twp(2)	Essex	Twp(2)	Burlington	Twp(1,2)	Ocean	Regional(1)	Passaic	Tuckerton Boro(2)	Ocean
Bound Brook		Egg Harbor	Adverte	Lodi Boro(1,2)	Bergen	Paterson City(1.2)	Passaic	Union Deach(2)	Hudeon
Boro(1,2)	Somerset	City(1,2) Elizabeth Cit (1,0)	Atlantic	Long Branch		Paulsboro Boro(1.2)	Gloucester	Unper Deerfield	Huuson
Bradley Beach		Elizabeth Cit (1,2)	Character	City(1,2)	Monmouth	Pemberton Boro(2)	Burlington	Twp(1.2)	Cumberland
Boro(2)	Monmouth	Enclosed Circle	Busser	Lower Cape May	Constant	Pemberton Two(1.2)	Burlington	Ventor City(1,2)	Atlantic
Brick Twp(2)	Ocean	Englewood City(2)	Dergen	Legental(1,2)	Cape May	Penns Grove-Carney's		Vineland City(1,2)	Cumberland
Bridgeton Circ(1.2)	Combushed	Ewing(2) Existent True (1.7)	Cumbedond	Lower Twp(1,2)	Cape May	Point Regional(1,2)	Salem	Wallington Boro(1)	Bergen
Brooklawn	Cumoerana	Painted Twp(1,2)	Ressee	Magnona(2) Magnona(2)	Canoen	Pennsauken(2)	Camden	Washington Twp(1)	Burlington
Boro(1.2)	Camden	Falview Boro(1,2) Rolsom Boro(2)	Atlantic	Manchester Tw (1,2) Manchester Twn(2)	Salam	Perth Amboy City(1,2)	Middlesex	Weehawken Twp(2)	Hudson
Buena		Feeklin Two?	Somerset	Maurice River	Jacin	Phillipsburg Twp(1,2)	Warren	West Cape May	
Regional(1,2)	Atlantic	Reschold Boro(1.2)	Monmouth	Twp(1,2)	Cumberland	Pine Hill Boro(1,2)	Camden	Boro(2)	Cape May
Burlington		Garfield City(1.2)	Bergen	Merchantville		Pinelands Regional(1)	Ocean	West New York	
City(1,2)	Burlington	Glasshoro/1 7)	Gloucester	Boro(2)	Camden	Plainfield Twp(1,2)	Union	Town(1,2)	Hudson
Camden City(1,2)	Camden	Gloucester City(1.7)	Conden	Middle Twp(1,2)	Cape May	Pleasantville City(1,2)	Atlantic	West Wildwood(2)	Cape May
Cape May Cit (2)	Cape May	Gloucester Two(2)	Canden	Millville City(1,2)	Cumberland	Prospect Park(1,2)	Passaic	Westville Boro(1,2)	Gloucester
Carteret(1,2)	Middlesex	Greenwich Two(7)	Cumberland	Monroe Twp(2)	Gloucester	Quinton Twp(1,2)	Salem	weymouth 1wp(1,2)	Atlantic
Regional(1)	Ocean	Guttenberg	Connoctiand	Montague Twp(1)	Sussex	Rahway City(2)	Union	Wharton Boro(2)	Morns
Chesilhurst (1.2)	Camden	Town(1,2)	Hudson	Moonachie Boro(1)	Bergen	Red Bank(2)	Monmouth	Wildwood City(1,2) Wildwood City(1,2)	Cape May
Charton Bor (2)	Gloucester	Hackensack City(2)	Bergen	Mount Holly(1,2)	Burlington	Ridgefield Boro(2)	Bergen	Boro(1.2)	Cape May
Clementon	Chouceana	Haledon Boro(1,2)	Passaic	Mullica Twp(1,2)	Atlantic	Riverside(1,2)	Burlington	Willingboro Twp(2)	Burlington
Boro(1,2)	Camden	Hamilton Twp(2)	Atlantic	National Park	C1	Roselle Boro(1,2)	Union	Winfield Twp(1)	Union
Cliffside Park	-	Hamilton Twp (2)	Mercer	Neonupe City	Gioucester	Runnemede(1,2)	Camden	Winslow Twp(2)	Camden
Boro(1,2)	Bergen	Hammonton		Boro(2)	Monmouth	Salem City(1,2)	Salem	Woodbine Boro(1.2)	Cape May
Clifton City(2)	Passaic	Twp(1,2)	Atlantic	Neptune Twp(2)	Monmouth	Sea Isle City(1,2)	Cape May	Woodbridge Twp(2)	Middlesex
Commercial	Contration	Harrison Twp(1,2)	Hudson	colour colta		Seaside Heights		Woodbury City(1,2)	Gloucester
Twp(1,2) Cumberland	Cumbertand	Highland Park Boro(7)	Middlesor			Boro(1,2)	Ocean	Woodlynne Boro	
Regional(1.2)	Cumberland	Doro(2) Hisblands/2	Moomouth					(1,2)	Camden
and and a second a se		rignanus(2)	Monmouth						
								i	

APPENDIX 3 Survey

first-generation Latino Student Retention Start of Block: SURVEY INSTRUCTION

Display This Question: If Survey Instruction Is Displayed

Q21 I identify my ethnicity as:

○ Asian

O Black/African American

O Caucasian

O Hispanic/Latinx

O Native American

O Pacific Islander

O Prefer not to answer

Display This Question: If Q21 = Hispanic/Latinx

Q22 If Hispanic/Latinx, please provide details below:

Mexican
Salvadorean
Puerto Rican
Dominican
Cuban
Colombian
Other

Display This Question: If Q22 = Other Q23 If other, please specify:

Q20 first-generation student is identified as students whose parents did not complete college. Do you consider yourself a first-generation student? ○ Yes O No Q32 Which university did you attend? O Rutgers University-Camden O Rutgers University-New Brunswick O Rutgers University-Newark Q26 What year did you begin college? Q25 What is the highest level of college you have completed? O Associate's Degree O Bachelor's Degree O Master's Degree O Doctoral Degree

○ Some College, not graduated yet

Q3 The following questions refer to the experiences you had before college. Please recall your time before you applied to college.

Q4 What is the highest degree you were hoping to attain when you applied to college?

0	No	Degree
---	----	--------

O Bachelor's Degree

- O Master's Degree
- O Doctoral Degree
- O Other

Q5 How involved was your family in your decision to attend college?

- \bigcirc Not at All
- Somewhat Uninvolved

O Somewhat Involved

○ Very Involved

Q6 How encouraging were your high school teachers to attend college?

- Not Supportive
- O Somewhat Unsupportive
- Somewhat Supportive
- Very Supportive

Q29 How encouraging were your high school counselors to attend college?

Not Supportive
Somewhat Unsupportive
Somewhat Supportive
Very Supportive

Q7 Did you attend a program outside of your high school that encouraged you to apply to college such as UpwardBound, Gear Up, or an After-School program?

○ Yes

○ No

Display This Question: If Q7 = Yes

Q8 Which program?

Q9 How certain were you about your choice in major?
Not Certain
Somewhat Uncertain
Somewhat Certain
Very Certain

Q10 Did you change your college major after starting college?

Yes
No

Disp	lay Thi	s Questi	on:
j	If Q10 =	= Yes	
*			

Q11 Why did you change your major?

Q12 How important were your parents in your decision of your major?

O Extremely important

○ Very important

 \bigcirc Moderately important

○ Slightly important

 \bigcirc Not at all important

Q13 How important were other family members in deciding your major?

O Extremely important

○ Very important

O Moderately important

○ Slightly important

 \bigcirc Not at all important

Q30 What is your current occupation?

77

Q14 The following questions will give you the opportunity to tell us more about your experiences in college. Please answer openly and truthfully.

2.0	Strongl y Disagre e	Disagre e	Somew hat disagre e	Neither agree nor disagre e	Somew hat agree	Agree	Strongl y agree
The faculty I have had contact with are generally intereste d in students.	0	0	0	0	0	0	0
A professor in college influence d my decision to continue my college career.	0	0	0	0	0	0	0
My friends from college encourag ed me to continue and finish my degree.	0	0	0	0	0	0	0

Q15 Please indicate your level of agreement with each of the statements below:

My 0 0 0 0 0 \bigcirc \bigcirc friends from home encourag ed me to continue and finish my degree. My \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc family encourag ed me to continue and finish my degree. I have \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc develope d close personal relations hips with other students at Rutgers. I have \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc develope d close personal relations hips with other students in the EOF program (if applicabl e).

I have personall O O O O O O O y experien ced discrimin ation based on race.

Q16 I was in one of the following state or federally funded programs throughout college to help me graduate.

🔿 TRiO

O Educational Opportunity Fund (EOF)

 \bigcirc Other program

O Not funded

Display This Question: If Q16 = Other program

Q27 If other, which program?

Q19 Did this program influence your decision to continue in college?

○ Yes

🔿 No

Q28 If yes, how? If no, why not?

Q18 What resources did you receive from your college?

Q17 What/who were the largest influencers for you to continue or complete college?

Q24 Please specify if there is anything else that contributed to attending college or staying in college.

Q33 Please share anything else about your experience that would contribute to the topic of first-generation Latinx students.

APPENDIX 4 Survey responses

FIELD	Strongl y Disagre e	Disagre e	Somew hat Disagre e	Neither	Somew hat Agree	Agree	Strongl y Agree
Faculty Interest	0.6%	3.5%	5.1%	9.6%	31.7%	37.2%	12.2%
Faculty encouragem ent	10.3%	13.8%	4.5%	21.5%	13.8%	20.5%	15.7%
Friends (College) encouragem	4.8%	5.1%	2.6%	15.4%	17.9%	27.6%	26.6%
ent Friends (Home) encouragem	5.1%	7.4%	3.5%	22.8%	11.5%	24.7%	25.0%
ent Family encouragem	0.3%	0.6%	1.9%	4.8%	9.9%	20.8%	61.5%
ent Close Relationshi	5.8%	2.9%	6.1%	7.4%	14.7%	20.2%	42.9%
ps EOF relationship	21.2%	9.3%	3.2%	34.0%	8.7%	9.0%	14.7%
s (if any) Discriminat ion	12.8%	17.9%	7.4%	16.3%	17.9%	16.3%	11.2%

Table S1: College Experience Influencers on retention: All Students

Table S2: College Experience Influencers on retention: New Brunswick

FIELD	Strongl	Disagre	Somew	Neither	Somew	Agree	Strongl
	у	e	hat		hat		y Agree
	Disagre		Disagre		Agree		
	e		e				

Faculty	0.5%	3.9%	4.4%	9.7%	32.0%	38.3%	11.2%
Interest							
Faculty	13.1%	15.0%	4.4%	21.4%	14.1%	19.4%	12.6%
encourage							
ment							
Friends	5.3%	5.3%	1.9%	17.0%	14.1%	26.7%	29.6%
(College)							
encourage							
ment							
Friends	5.3%	9.2%	3.4%	23.8%	10.2%	22.3%	25.7%
(Home)							
encourage							
ment							
Family	0.5%	0.5%	1.9%	5.3%	6.8%	22.8%	62.1%
encourage							
ment							
Close	5.3%	1.9%	4.9%	6.3%	16.0%	18.0%	47.6%
Relationshi							
ps							
EOF	22.3%	8.3%	2.9%	32.5%	6.8%	10.2%	17.0%
relationshi							
ps (if any)							
Discrimina	12.6%	18.0%	9.2%	16.5%	17.5%	15.0%	11.2%
tion							

 Table S3: College Experience Influencers on retention: Newark

FIELD	Strongl	Disagre	Somew	Neither	Somew	Agree	Strongl
	У	e	hat		hat		y Agree
	Disagre		Disagre		Agree		
	e		e				
Faculty	1.3%	2.7%	9.3%	8.0%	30.7%	34.7%	13.3%
Interest							
Faculty	4.0%	14.7%	4.0%	17.3%	13.3%	20.0%	26.7%
encourage							
ment							
Friends	5.3%	2.7%	4.0%	14.7%	25.3%	26.7%	21.3%
(College)							
encourage							
ment							
Friends	5.3%	2.7%	2.7%	20.0%	14.7%	29.3%	25.3%
(Home)							

encourage ment							
Family	0.0%	1.3%	0.0%	1.3%	12.0%	21.3%	64.0%
encourage							
ment							
Close	8.0%	6.7%	8.0%	9.3%	12.0%	21.3%	34.7%
Relationshi							
ps							
EOF	20.0%	10.7%	2.7%	38.7%	10.7%	8.0%	9.3%
relationshi							
ps (if any)							
Discrimina	14.7%	16.0%	2.7%	16.0%	20.0%	17.3%	13.3%
tion							

Table S4: College Experience Influencers on retention: Camden

FIELD	Strongl y Disagre e	Disagre e	Somew hat Disagre e	Neither	Somew hat Agree	Agree	Strongl y Agree
Faculty Interest	0.0%	3.2%	0.0%	12.9%	32.3%	35.5%	16.1%
Faculty encourage ment	6.5%	3.2%	6.5%	32.3%	12.9%	29.0%	9.7%
Friends (College) encourage ment	0.0%	9.7%	3.2%	6.5%	25.8%	35.5%	19.4%
Friends (Home) encourage ment	3.2%	6.5%	6.5%	22.6%	12.9%	29.0%	19.4%
Family encourage ment	0.0%	0.0%	6.5%	9.7%	25.8%	6.5%	51.6%
Close Relationshi ps	3.2%	0.0%	9.7%	9.7%	12.9%	32.3%	32.3%
EOF relationshi ps (if any)	16.1%	12.9%	6.5%	32.3%	16.1%	3.2%	12.9%
Discrimina tion	9.7%	22.6%	6.5%	16.1%	16.1%	22.6%	6.5%

APPENDIX 5 Cross-Tabulations

	Retained Fall YR2					
All	SAMPLE	EOF	NON-EOF			
Female	0.888	0.923	0.874			
Male	0.854	0.888	0.845			
New Brunswick	0.898	0.918	0.890			
Newark	0.840	0.941	0.821			
Camden	0.793	0.769	0.800			
District Factor Group	0.866	0.905	0.847			
High Distress Municipalit	y 0.871	0.912	0.853			
National School Lunch	0.876	0.911	0.855			
College Prep Program	0.882	0.897	0.873			
EOF Sibling	0.933	0.951	0.894			
Parent Education*						
Father College	0.861	0.892	0.854			
Mother College	0.863	0.903	0.856			
Both Parents College	0.862	0.899	0.857			
Neither Parents College	0.881	0.916	0.865			
Father Only College	0.860	0.889	0.852			
Mother Only College	0.863	0.907	0.854			

Table A1: Cross-Tabulations for Student Characteristics and Retention: All

Retained Fall YR3						
All	SAMPLE	EOF	NON-EOF			
Female	0.825	0.856	0.813			
Male	0.777	0.810	0.768			
New Brunswick	0.849	0.865	0.843			
Newark	0.737	0.827	0.720			
Camden	0.676	0.615	0.695			
District Factor Group	0.785	0.826	0.764			
High Distress Municipalit	y 0.796	0.838	0.777			
National School Lunch	0.808	0.837	0.791			
College Prep Program	0.810	0.802	0.814			
EOF Sibling	0.886	0.896	0.864			
Parent Education*						
Father College	0.792	0.801	0.790			
Mother College	0.800	0.851	0.792			

Both Parents College	0.797	0.823	0.794
Neither Parents College	0.810	0.846	0.794
Father Only College	0.786	0.790	0.785
Mother Only College	0.804	0.880	0.788

		Retained Fall YR2	
Al	I SAMPLE	EOF	NON-EOF
Female	0.911	0.922	0.905
Male	0.883	0.912	0.873
District Factor Group	0.899	0.915	0.887
High Distress Municipali	ty 0.900	0.921	0.887
National School Lunch	0.903	0.917	0.892
College Prep Program	0.903	0.907	0.900
EOF Sibling	0.944	0.959	0.900
Parent Education*			
Father College	0.888	0.935	0.877
Mother College	0.895	0.927	0.890
Both Parents College	0.884	0.941	0.876
Neither Parents College	0.901	0.914	0.893
Father Only College	0.892	0.932	0.878
Mother Only College	0.914	0.914	0.914

Table A2: Cross-Tabulations for Student Characteristics and Retention: New Brunswick

		Retained Fall YR3	
All	SAMPLE	EOF	NON-EOF
Female	0.875	0.880	0.873
Male	0.818	0.842	0.810
District Factor Group	0.831	0.854	0.816
High Distress Municipality	y 0.843	0.865	0.830
National School Lunch	0.855	0.862	0.850
College Prep Program	0.837	0.836	0.838
EOF Sibling	0.894	0.901	0.875
Parent Education*			
Father College	0.843	0.863	0.838

Mother College Both Parents College	0.854 0.838	0.908 0.902	0.845 0.830
Neither Parents College	0.848	0.861	0.840
Mother Only College	0.847	0.914	0.848

	Retained Fall YR2		
All	SAMPLE	EOF	NON-EOF
Female	0.858	0.972	0.830
Male	0.816	0.864	0.810
District Factor Group	0.840	0.950	0.811
High Distress Municipalit	ty 0.836	0.940	0.814
National School Lunch	0.844	0.938	0.816
College Prep Program	0.871	0.959	0.840
EOF Sibling	1.000	1.000	1.000
Parent Education*			
Father College	0.830	0.881	0.823
Mother College	0.822	0.933	0.808
Both Parents College	0.840	0.882	0.835
Neither Parents College	0.852	0.952	0.828
Father Only College	0.822	0.880	0.814
Mother Only College	0.798	1.000	0.774

Table A3: Cross-Tabulations for Student Characteristics and Retention: Newark

		Retained Fall YR3	
All S	SAMPLE	EOF	NON-EOF
Female	0.751	0.846	0.728
Male	0.720	0.780	0.713
District Factor Group	0.747	0.831	0.725
High Distress Municipality	0.734	0.819	0.716
National School Lunch	0.750	0.819	0.730
College Prep Program	0.814	0.837	0.806
EOF Sibling	0.938	0.933	0.941
Parent Education*			
Father College	0.720	0.714	0.720

Mother College	0.720	0.767	0.714
Both Parents College	0.737	0.706	0.741
Neither Parents College	0.752	0.857	0.727
Father Only College	0.706	0.720	0.704
Mother Only College	0.698	0.846	0.679

		Retained Fall YR2	
All	SAMPLE	EOF	NON-EOF
Female	0.825	0.817	0.828
Male	0.743	0.677	0.760
District Factor Group	0.747	0.704	0.765
High Distress Municipality	0.799	0.766	0.812
National School Lunch	0.793	0.793	0.793
College Prep Program	0.790	0.667	0.836
EOF Sibling	0.706	0.750	0.667
Parent Education*			
Father College	0.763	0.677	0.789
Mother College	0.731	0.667	0.744
Both Parents College	0.750	0.727	0.756
Neither Parents College	0.827	0.839	0.823
Father Only College	0.772	0.650	0.814
Mother Only College	0.703	0.500	0.727

Table A4: Cross-Tabulations for Student Characteristics and Retention: Camden

		Retained Fall YR3	
All S.	AMPLE	EOF	NON-EOF
Female	0.709	0.667	0.724
Male	0.625	0.516	0.653
District Factor Group	0.613	0.556	0.636
High Distress Municipality	0.683	0.623	0.707
National School Lunch	0.672	0.646	0.686
College Prep Program	0.645	0.429	0.727
EOF Sibling	0.706	0.750	0.667
Parent Education*			
Father College	0.644	0.581	0.664
Mother College	0.624	0.600	0.628

Both Parents College	0.642	0.636	0.644
Neither Parents College	0.710	0.643	0.734
Father Only College	0.646	0.550	0.678
Mother Only College	0.595	0.500	0.606

		Retained Fall YR2	
Al	I SAMPLE	EOF	NON-EOF
Female	0.911	0.922	0.905
Male	0.883	0.912	0.873
District Factor Group	0.899	0.915	0.887
High Distress Municipali	ty 0.900	0.921	0.887
National School Lunch	0.903	0.917	0.892
College Prep Program	0.903	0.907	0.900
EOF Sibling	0.944	0.959	0.900
Parent Education*			
Father College	0.888	0.935	0.877
Mother College	0.895	0.927	0.890
Both Parents College	0.884	0.941	0.876
Neither Parents College	0.901	0.914	0.893
Father Only College	0.892	0.932	0.878
Mother Only College	0.914	0.914	0.914

Table A2: Cross-Tabulations for Student Characteristics and Retention: New Brunswick

		Retained Fall YR3	
All S	AMPLE	EOF	NON-EOF
Female	0.875	0.880	0.873
Male	0.818	0.842	0.810
District Factor Group	0.831	0.854	0.816
High Distress Municipality	0.843	0.865	0.830
National School Lunch	0.855	0.862	0.850
College Prep Program	0.837	0.836	0.838
EOF Sibling	0.894	0.901	0.875
Parent Education*			
Father College	0.843	0.863	0.838
Mother College	0.854	0.908	0.845

Both Parents College	0.838	0.902	0.830
Neither Parents College	0.848	0.861	0.840
Father Only College	0.847	0.846	0.848
Mother Only College	0.880	0.914	0.871

		Retained Fall YR2	
All	SAMPLE	EOF	NON-EOF
Female	0.858	0.972	0.830
Male	0.816	0.864	0.810
District Factor Group	0.840	0.950	0.811
High Distress Municipali	ty 0.836	0.940	0.814
National School Lunch	0.844	0.938	0.816
College Prep Program	0.871	0.959	0.840
EOF Sibling	1.000	1.000	1.000
Parent Education*			
Father College	0.830	0.881	0.823
Mother College	0.822	0.933	0.808
Both Parents College	0.840	0.882	0.835
Neither Parents College	0.852	0.952	0.828
Father Only College	0.822	0.880	0.814
Mother Only College	0.798	1.000	0.774

Table A3: Cross-Ta	bulations for Studen	t Characteristics and	d Retention: Newark
1 abic 115. C1055-1 a	bulations for Studen	character istics and	

		Potoinad Fall VD2	
		Retained Fall TRS	
All S	AMPLE	EOF	NON-EOF
Female	0.751	0.846	0.728
Male	0.720	0.780	0.713
District Factor Group	0.747	0.831	0.725
High Distress Municipality	0.734	0.819	0.716
National School Lunch	0.750	0.819	0.730
College Prep Program	0.814	0.837	0.806
EOF Sibling	0.938	0.933	0.941
Parent Education*			
Father College	0.720	0.714	0.720
Mother College	0.720	0.767	0.714
Both Parents College	0.737	0.706	0.741
Neither Parents College	0.752	0.857	0.727
-			

Father Only College	0.706	0.720	0.704
Mother Only College	0.698	0.846	0.679

		Retained Fall YR2	
All	SAMPLE	EOF	NON-EOF
Female	0.825	0.817	0.828
Male	0.743	0.677	0.760
District Factor Group	0.747	0.704	0.765
High Distress Municipality	0.799	0.766	0.812
National School Lunch	0.793	0.793	0.793
College Prep Program	0.790	0.667	0.836
EOF Sibling	0.706	0.750	0.667
Parent Education*			
Father College	0.763	0.677	0.789
Mother College	0.731	0.667	0.744
Both Parents College	0.750	0.727	0.756
Neither Parents College	0.827	0.839	0.823
Father Only College	0.772	0.650	0.814
Mother Only College	0.703	0.500	0.727

Table A4: Cross-Tabulations for Student Characteristics and Retention: Camden

*Parent Education defined as whether parent attended college regardless of completion.

	Retained Fall YR3						
Al	I SAMPLE	EOF	NON-EOF				
Female	0.709	0.667	0.724				
Male	0.625	0.516	0.653				
District Factor Group	0.613	0.556	0.636				
High Distress Municipali	ty 0.683	0.623	0.707				
National School Lunch	0.672	0.646	0.686				
College Prep Program	0.645	0.429	0.727				
EOF Sibling	0.706	0.750	0.667				
Parent Education*							
Father College	0.644	0.581	0.664				
Mother College	0.624	0.600	0.628				
Both Parents College	0.642	0.636	0.644				
Neither Parents College	0.710	0.643	0.734				
Father Only College	0.646	0.550	0.678				
Mother Only College	0.595	0.500	0.606				

APPENDIX 6 IRB Approval



Health Sciences IRB -New Brunswick/Piscataway 335 George Street Suite 3100, 3rd Floor New Brunswick, NJ 08901 Phone: 732-235-9806

Health Sciences IRB -Newark 65 Bergen Street Suite 511, 5th Floor Newark, NJ 07107 Phone: 973-972-3608

DHHS Federal Wide Assurance Identifier: FWA00003913 IRB Chair Person: Beverly Tepper IRB Director: Michelle Watkinson Effective Date: 7/23/2019 Approval Date: 7/15/2019 Expiration Date: N/A

eIRB Notice of Approval for Initial Submission # Pro2019000700

STUDY PROFILE

Study ID:	Pro2019	000700					
Title:	The Impa Retention	act of the n at Rute	e Edu gers,	cational Opportunity Fund The State University of Nev	Progra v Jers	am on First Generatio ey	n Latinx Student
Principa	l Investig	jator:	Yosr	meriz Roman	Stud	y Coordinator:	Gloria Bonilla
Co-Inve	stigator(s	;):	Glor	ia Bonilla	Othe	r Study Staff:	Gloria Bonilla
Sponso	r:		The	re are no items to display	Appr	oval Cycle:	Not Applicable
Risk Det	terminati	on:	Mini	mal Risk	Devi	ce Determination:	Not Applicable
Review	Туре:	Exem	ipt	Expedited Category:	N/A	Exempt Category:	2 4
Subjects	s:	Unlimit	ed	Specimens:	N/A	Records:	Unlimited

1

CURRENT SUBMISSION STATUS

Submission Type:		Resear	rch		Submission S	Sta	atus:	Approved
Approval Date: 7/15/2		7/15/20	01/Study 019		Expiration Da	Expiration Date: N/A		N/A
Pregnancy Code:	No Pregnant \ as Subjects	Vomen	Pediatr Code:	ic	No Children As Subjects	s	Prisoner Code:	No Prisoners As Subjects
Protocol: S II Protocol: S	lon- nterventional Template.pdf Survey Question ntro.pdf	C	onsent:	Ci Fo	onsent orm.pdf	Ot	ther Materials	Email Introduction.pdf

* Study Performance Sites:

Rutgers, The State University of New Originating site but no contact with students all will be via e-Jersey, Camden mail or review of existing data.

There are no items to display

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