

EXAMINING THE EFFECTS OF THE PRESENTATION AND FRAMING OF  
INFORMATION ON THE PARTICIPATION OF UNDERREPRESENTED  
STUDENTS IN A LARGE URBAN SCHOOL DISTRICT IN AN OPT-IN OR OPT-  
OUT SUMMER COLLEGE BRIDGE PROGRAM

A Dissertation

by

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## **ABSTRACT**

College retention and graduation rates among underrepresented students in large urban school districts across the United States are much lower compared to their counterparts. Large urban school districts have also produced low numbers in terms of graduating underrepresented students from high schools across the country. Colleges and universities have created summer bridge programs in response to the low college retention and graduation rates among underrepresented students. These summer bridge programs target the academic and social needs of the incoming student and provide them with the support needed before their official first day at the university or college.

The purpose of this study was to examine the participation of selected students in college summer bridge programs, specifically whether participation will be affected by presentation and framing of information before the participant makes the decision to enroll into the college summer bridge program. The significance of the presentation and framing of information will provide more insight on how participation can be increased for college summer bridge programs, especially for underrepresented students.

The study included a random selection of 200 participants from one major high school in a large urban school district in the Houston area. Recruited participants possessed similar demographics such as first generation high school graduates, parents with limited English speaking proficiency, underrepresented populations, and economically challenged. Descriptive statistics was used to summarize the characteristics of the general populations at both campuses. From these participants, four separate groups (Group A, Group B, Group C, and Group D) were created to study the relationship between the categorical

variables. A formal presentation was given to two groups of students, while the remaining two groups did not receive a formal presentation regarding the college summer bridge program.

A quantitative method, specifically a nonparametric test, and chi-square was utilized to test the correlation between the categorical variables. The categorical variables were the number of frequencies tabulated for participation in either the automatically enrolled or opt in programs. After the level of significance was obtained, a Cramer's V using crosstabs was used to test the strength of the relationship between the categorical variables.

## **DEDICATION**

This dissertation is dedicated first to my Lord and Savior, Jesus Christ. With Him, anything is possible, and I am grateful for the blessings He has bestowed upon me in my life thus far. I also dedicate this dissertation to my mother, Martha Alicia Tercero, who cared for me and my siblings selflessly, always sacrificing so much to give us what we needed in life to succeed. She taught us many things, but most importantly to work at what we wanted to achieve and to do our very best. My Mother has always been an important role model in my life.

I was born in Tegucigalpa, Honduras, from humble beginnings to a very poor family. My life experiences have truly helped mold and shape the person I am today. Because of my struggles early on in life, I learned to persevere and to forge ahead, paving a pathway to success. I am a firm believer that education is the only way out of poverty and the only way to help our children to succeed. As life has it, I am now blessed to be working in the education profession and to help improve the lives of students, many of whom share the same humble beginnings. I have been an innovative, knowledgeable, focused, and student-oriented educator for more than 19 years in Houston ISD, serving in various roles such as a classroom teacher, campus network specialist, assistant principal, dean of instruction, principal, and finally as an Area Superintendent. I have learned that the students are important above all else and any decisions made must always involve the students' best interests. That is the mark of a true leader. I learned this from my Mother, and I am more than proud to dedicate this accomplishment to her.

To my beloved wife, Anayd Ponce, for her love and guidance throughout my doctoral journey-- thank you for always being by my side and supporting me every step of the way. To my two dear children, Sophia and Jonathan Ponce, for their love and innocence. Life is full of challenges and obstacles, but my children have always taught me to appreciate the simplest things and to love each moment spent with them.

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## **CONTRIBUTORS AND FUNDING SOURCES**

### **Contributors**

This work was supervised by a dissertation committee consisting of Professor Beverly J. Irby and Dr. Marco A. Palma of the Department of Agricultural Economics and Professor Gwendolyn Webb of the Department of Educational Administration and Human Resource Development, and Professor Rafael Lara-Alecio of the Department of Educational Psychology.

The data analyzed for Chapter 3 was provided by Professor Irby. The analyses depicted in Chapter 4 were conducted in part by Lixia Qin, of the Department of Educational Administration and Human Resource Development.

All other work conducted for the dissertation was completed by the student independently.

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## NOMENCLATURE

B/CS	Bryan/College Station
BIF	Baseline Information Form
CHEER	Creating Higher Expectations for Educational Readiness
GPA	Grad Point Average
THECB	Higher Education Coordinating Board
YSP	Young Scholars' Program

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# **CHAPTER I**

## **INTRODUCTION**

### **Background**

Across the nation, college graduation rates among first generation, underrepresented minority students are significantly lower compared to other demographic groups (Mellon, 2010). Education and community advocates, school districts, and policymakers have strived to identify the specific problems, barriers, and variables that affect the college graduation rates for this target population. A variety of factors such as race, family educational level, and socio-economic status have been widely cited as critically important in predicting the likelihood of graduation from a post graduate institution (Tinto, 1975).

In Tinto's 1975 perennial work several characteristics were identified as contributing factors to the likelihood of graduation from a post graduate institution for underrepresented minority groups (Tinto, 1975). Some of these characteristics included personal experiences and background. The concept of academic integration has also been widely discussed in addressing the issue of college retention and graduation for underrepresented minority students. In the same work, Tinto set forth the concept of academic integration and its crucial importance in determining whether a student will graduate from a post graduate institution. Academic integration takes into account the individual student's personal experiences and background and how the academic institution responds appropriately to the student's cognitive and social needs to assist them in becoming fully integrated in the academic environment. (Tinto, 1975)

As a response to the growing concerns over college retention and graduation rates for underrepresented minority groups, several programs and initiatives have developed over the years to close the academic achievement gap between this targeted group and non-underrepresented minority groups (Kallison & Stader, 2012). An example of one of these programs is the college summer bridge program. Summer bridge programs were developed in response to the growing need to academically and socially prepare first-generation and underrepresented minority students (Cabrera, Miner & Milem, 2013).

These programs are offered during the summer prior to the first official semester for the student. Summer bridge programs have standard components which include academic courses tailored to prepare students that are not readily equipped to begin their first official semester at a post graduate institution and social programs that provide an in-depth view on the environment in these institutions as well as information on how to manage their time (Wathington, Pretlow, & Barnett, 2016). Extensive studies of summer bridge programs have also revealed their effectiveness in curbing retention and graduation rates for underrepresented minority students at these post graduate institutions (Wathington, Pretlow, & Barnett, 2016).

### **Statement of the Problem**

Large urban school districts have conducted extensive research on the college retention and graduate rates for underrepresented minority student graduates from their high schools. In particular, Chicago Public Schools launched several research projects to further examine the problem and to compile informative data regarding this targeted population (Healey, Nagaoka, & Michelman, 2014). The most recent study was conducted

in 2014, which revealed that the degree attainment index was 14 percent, which means that out of 100 students that graduate from a high school in the Chicago Public School District, only 14 continue their studies at a post graduate institution and eventually obtain a degree (Healey, Nagaoka, & Michelman, 2014). Similarly, in the Houston Independent School District, a study revealed a degree attainment index of 15 percent, meaning that out of 100 students, only 15 would continue their studies at a post graduate institution and eventually obtain a degree (Mellon, 2010).

These statistics are quite alarming considering the amount of students who graduate each year from large urban high schools and with the additional knowledge that the numbers are bleaker for underrepresented minority groups (Healey, Nagaoka, & Michelman, 2014). I specifically addressed the disparity in college retention and graduation rates between underrepresented minority groups and their counterparts and how college summer bridge programs can narrow this academic achievement gap. I also addressed how college summer bridge programs can modify their recruitment/enrollment process to ensure increased participation amongst students in this targeted population.

### **Need for the Study**

The information from this study should contribute to the growing research in addressing the college retention and graduation rates for underrepresented minority students. Researchers (e.g., Cabrera, Miner & Milem, 2013; Kallison & Stader, 2012; Wathington, Pretlow, & Barnett, 2016) have demonstrated and measured the effectiveness of college summer bridge programs, but the enrollment and participation of targeted students have remained stagnant. In some cases, targeted students are choosing not to

participate in the program, despite becoming aware of the academic and social benefits in helping them to remain in a postgraduate institution and to eventually graduate. There remains a scarcity of research in examining the reluctance of targeted student's participation in summer bridge programs, and this study will help to serve as a catalyst in addressing this issue.

### **Significance of the Study**

Several researchers have conducted numerous studies in terms of measuring the effectiveness of summer bridge programs but the reluctance to participate in a summer bridge program has not been studied extensively. For example, in Texas, an evaluation was conducted on several summer bridge programs that were targeted to help high students to transition to college with more ease (Wathington, Pretlow, & Barnett, 2016). Similarly, in Arizona, the New Start Summer Program was also studied to determine whether there were significant effects on the transition of high school students to college (Cabrera, Miner, & Milem, 2013). Potential summer bridge program participants are aware of the academic and social benefits that can be derived from the completion of a summer bridge program, but some individuals choose not to attend.

As discussed previously, Tinto posited a handful of identifying characteristics that are determinative in the retention and graduation rates of students enrolled in a post graduate institution (Tinto, 1975). These characteristics may explain the outcome determinative nature of a student's academic success in a post graduate institution but does not address the issue of reluctance of participation in summer bridge programs.

There is an apparent stigma involved with college summer bridge programs for underrepresented minority groups (Robert & Thomson, 1994). Some students that are selected to participate perceive a label being subjected on them, stigmatizing them in a categorical group deemed to be less than their counterparts (Robert & Thomson, 1994). This stigmatizing effect influences their decision making in whether they will participate in the program or not. Potential summer bridge program participants have expressed fear of other's judgments projected on them that may involve their qualifications to attend the post graduate institution and the inherent bias in being selected for the program (Robert & Thomson, 1994). Stigma, in this aspect, plays a powerful role in affecting a potential program participant's decision in whether they should enroll in the program, despite the academic and social benefits that can be derived from the completion of the program.

Similar social and public policy programs have been studied for their stigmatizing effects and the reluctance of individuals to participate in these programs despite their academic, social, or health benefits (Allen, Wright, Harding, & Broffman, 2014). Several experiments have been conducted to examine the powerful nature of stigma and confronting it with programs that can moderate or eliminate these stigmatizing effects. One such program characteristic is the opt-out feature for public policy programs (Junghans, Feder, Hemingway, Timmis, & Jones, 2005). Opting out of a program requires the program participant to expressly provide withdrawal from the program, thereby necessitating an overt act on the part of the program participant. Opt-out programs have witnessed an increase in participation amongst public and social programs in different countries (Davidai, Gilovich, & Ross, 2012).

## **Purpose of the Study**

The purpose of this study was to examine whether the presentation and framing of the information affects a significant difference in participation for automatically enrolled /opt-out or not automatically enrolled/opt-in college summer bridge programs among underrepresented students. Specifically, four groups were studied to determine whether there is a significant difference in program participation and whether the presentation and framing of information before consenting to an automatically enrolled or opt-in feature of a program affects participation. Participants were selected from one major high school within a large urban school district in Houston, Texas. Four groups of participants were created to determine whether the presentation and framing of information had an effect on the participation of students in summer bridge programs. Participants in all groups received the same treatment/procedures except for two of the groups which did not have the opportunity to listen to an oral presentation and framing of information. Results from the experiment were analyzed using descriptive statistics and a nonparametric test, chi square, and also Cramer's V to test the strength of the relationship between the categorical variables.

## **Research Questions**

The following research questions were used to guide the purposes of this study:

1. Does the presentation and framing of information increase or decrease participation in a college summer bridge program for underrepresented students using an automatically enrolled format (opt-out approach)?

2. Does the presentation and framing of information increase or decrease participation in a college summer bridge program for underrepresented students using a not automatically enrolled (opt-in approach)?

### **Theoretical Framework**

Tinto's 1975 work was used to frame the research and the questions for the purposes of this study. According to Tinto, there are four types of students in considering retention and attrition: (a) the persister; (b) the stop-out; (c) the attainer, and (d) the dropout (Tinto, 1975). A persister was a student who continuously enrolled without any interruption. A stop-out was a student who left the institution for a period of time and then returned for additional study. The attainer was the student who dropped out before graduation but after attaining particular goals. The dropout was the one who left the institution and did not return for additional study at any time (Tinto, 1975).

In the same work, Tinto also discussed the rites of passage such as separating from family and childhood support, experiencing transition where they begin to assimilate new values and behaviors, and then fully incorporating these values and behaviors (Tinto, 1975). Students who fail to complete successfully these rites are more likely to leave college. On the same note, as a precursor to attending college, Tinto's attrition model specifies that students entering college bring with them a variety of attributes or precollege experiences and background characteristics that have an impact on educational expectations and commitments (Tinto, 1975). Personal experiences and background shape the way that we learn and frames the way in which we perceive the world. In the same

token, students bring with them a plethora of perspectives, experiences, and opinions that will shape their college going experiences as well (Tinto, 1975).

In his work, *Stigma: Notes on the Management of Spoiled Identity*, Erving Goffman postulated the concept of stigma to explain the apparent differential treatment amongst social classes and groups in society (Goffman, 1963):

The social hierarchal structure of society creates “insiders” and “outsiders”. Insiders are usually perceived as the “normal” ones that project their construct and perception of social reality on the “different” ones, the outsiders. Stigmatization emerges from the dominance of the insiders in projecting their view of what is normal onto the outsiders. Stigmatized individuals are identified through their perceived “difference” and are treated as other by the insiders. A difference in facial and physical attributes, race, religion, sexuality, criminality, and intellectual abilities have come under the umbrella of stigma and is used in society to project the different treatment amongst these individuals. The role of stereotypes in society and its convergence with attributes assist insiders to ideologically police social identity, social intercourse, and social norms (Goffman, 1963,p.4).

Goffman also discussed the interaction between the stigmatized individual and the normal individual. As a consequence of the “normal” projecting their perceived construct of social reality, stigmatized individuals become subjected to their social norms and rules, forced to comply and adhere to them (Goffman, 1963). Stigmatized individuals begin to examine the aspect of themselves that makes them “different” and make efforts to conform with the normal individuals, thereby altering and shaping their outer-selves in order to interact.

Through this process, stigmatized individuals begin to reject the part of themselves that comprise their identity, eschewing it in order to be accepted into mainstream society (Goffman, 1963).

Racial stigma is one of the most prevalent forms of stigma in American society. The differences in race and ethnicity have influenced and shaped many governmental policies, especially in the area of education. The stigmatization of underrepresented minorities, especially students in postsecondary education, has been the focal point of many affirmative action debates for postsecondary education admissions policies. Opponents of affirmative education for race based admissions policies have argued that these policies stigmatize beneficiaries of these programs further, subjecting them to unnecessary scrutiny and harming them (Onwuachi-Willig & Campbell, 2008).

### **Definition of Terms**

#### **Automatically Enrolled**

Automatically enrolled refers to the default option of participants in a particular program, recognizing them as participants with the option of exiting the program by providing explicit consent

#### **Historically Underrepresented Minority**

Historically underrepresented minority is a term used to identify minority groups that are not of Caucasian or Asian ethnicity.

#### **Opt – In**

Opt-in is a term used to identify a program or process that automatically admits and/or enrolls participants without obtaining active prior consent.

### **Opt – Out**

Opt-out is a term used to identify a program or process that requires participants to be admitted and/or enrolled only through obtaining active prior consent.

### **Post Graduate Institution**

Post graduate institution is a term that refers to an institution with a two or four year accreditation degree seeking program after graduation from a high school.

### **Racial Stigma**

Racial stigma is a term created through social norms by a majority race that is subjected on underrepresented minority groups.

### **Socio-economic Status**

Socio-economic status is a term used to identify students based on the federal lunch program. Students who receive free or reduced lunch will represent “low” SES, I use the term economically challenged students.

### **Summer Bridge Program**

Summer bridge program is a term used to identify a summer academic and social program with the purpose of assisting students to transition with more ease into the university life.

### **Delimitations**

I selected an urban high school that included economically challenged students. I examined the effect of presentation and framing of information, whether in a formal or informal format, and its impact on student choice in college summer bridge program, post high school years. In an effort to determine how and why students were choosing to

participate in these programs, I determined that it was best to conduct the study in a large urban high school setting in a major school district. Additionally, in an effort to gain understanding on the willingness/reluctance of first generation high school students in at-risk communities with high low-socioeconomic factors, these characteristics were also sought for the study groups. Specifically, the school used in this study possessed underrepresented student groups demographic information.

### **Limitations**

A few limitations in this study must be addressed. Participants were selected through convenience sampling, meaning no total randomization of selection was implemented. Convenience sampling possesses inherent weaknesses of the difficulty to generalize to other subjects that do not share the same characteristics of the sample size. In effect, the results are dependent upon the unique characteristics of the sample. In this study, only subjects that met qualifying criteria were eligible to participate in the study.

As a result, conclusions drawn from this study may be applied to subjects with similar characteristics, narrowing the generalizations to a specific targeted group. In addition, the study was conducted at only 1 area high school in the Houston area. The sample size may be small compared to future studies that can include a larger sample size.

An additional limitation included the generalizability of the nature of the results in applying it to external school districts. The results in this study were specific to this specific large urban school district with the student demographic information that is unique to this school district. These results may not be applied to another school district without considering the characteristics and demographics of the sample populations used in this

study. Despite these limitations, the study of the information is important to enhance the current knowledge on college retention and graduation, especially for underrepresented student graduates from large urban school districts.

## **CHAPTER II**

### **NARRATIVE REVIEW OF THE LITERATURE**

Higher level education in terms of completion and achievement have always been the end goal for all students in the public school education system. Within the past few decades, an increasing amount of students are graduating from the public education system but the unfortunate reality is that few students proceed after high school graduation to pursue a degree in a four-year university or college and fewer students graduate from high school to obtain their bachelor's degree (Healey, Nagaoka, & Michelman, 2014). Among historically-underrepresented minority students of color/ students, the numbers are bleaker in comparison to their Caucasian counterparts (Healey, Nagaoka, & Michelman, 2014). Many advocates in the public education system have proposed programs and initiatives to close this academic achievement gap especially for the disparity in college graduation rates, but few programs and initiatives exist to adequately address these concerns.

This chapter includes a discussion of the literature review on the relevant topics for this dissertation and is organized as follows: (a) college graduation and retention rates amongst minority students in the public school system; (b) the development of summer bridge programs and their unique characteristics in addressing college retention/graduation rates; (c) the effect of summer bridge programs on underrepresented minority students; (d) a discussion of stigma and how it relates to education especially in terms of academic achievement; (e) a brief examination of the stigmatization of participants in federal/state public programs with the primary purpose of achieving a public good; (f) stigmatization

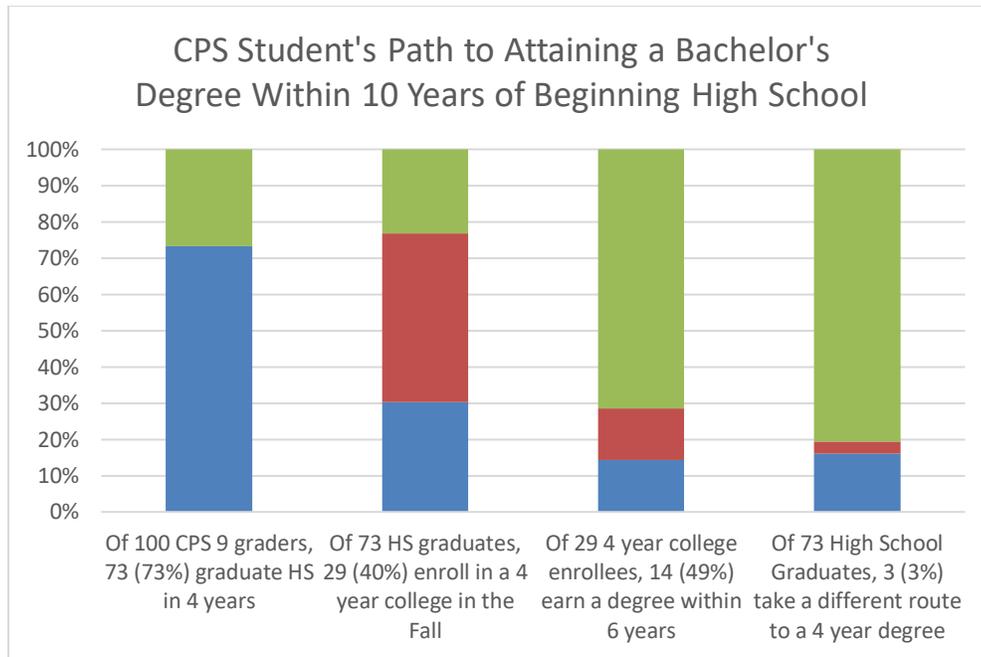
of individuals associated with affirmative action; and (g) the current research on opt-in and opt-out programs how it relates to the study that will be conducted for this dissertation.

### **College Graduation and Retention Rates Among Minority Students**

One of the largest public school districts in the country, Chicago Public Schools (CPS) (Healey, Nagaoka, & Michelman, 2014), has conducted extensive research since 2006 to capture with reasonable certainty, the college graduation rate for high school students that have graduated from the school district. CPS developed a measure of this achievement, called the degree attainment index (Healey, Nagaoka, & Michelman, 2014).

The index is an estimate of the amount of ninth graders that would earn a bachelor's degree by their mid-twenties. In 2006, CPS revealed that the degree attainment index was 8 percent (Healey, Nagaoka, & Michelman, 2014). This meant that out of 100 CPS ninth graders, eight would graduate from high school and go on to obtain a bachelor's degree by their mid-twenties. In 2014, CPS revealed that the degree attainment index was 14 percent, meaning 14 percent would earn their four-year college degree within 10 years of beginning high school (Healey, Nagaoka, & Michelman, 2014).

Figure 1 summarizes CPS' degree attainment index findings (Healey, Nagaoka, & Michelman, 2014):



*Figure 1.* CPS student’s path to attaining a bachelor’s degree within 10 years of beginning high school. Reprinted from Healey, K., Nagaoka, J., & Michelman, V. (2014). *The educational attainment of Chicago Public Schools students: A focus on four-year college degrees.* The University of Chicago Consortium on Chicago School Research.

As illustrated in the figure, of the 29 ninth graders who graduated high school in four years and enrolled in a four-year college in the fall after high school graduation, 49% (or 14 students) earn a bachelor’s degree within six years of high school graduation (Healey, Nagaoka, & Michelman, 2014). Three percent of high school graduates who do not immediately enroll in a four-year college go on to earn a bachelor’s degree within 6 years of high school graduation (Healey, Nagaoka, & Michelman, 2014). In comparison with the national rates, the high school graduation rate is 81%, the four-year college enrollment rate among high school graduates is 38%, and the six-year college

graduate rate among four-year college enrollees is 59% (Healey, Nagaoka, & Michelman, 2014).

Researchers Healey, Nagaoka, & Michelman (2014), also included an explanation of the increase in the degree attainment index from 2006 to 2014 from 8 to 14% as a result of increasing rates at which CPS students are graduating high school and enrolling in four-year colleges. The college graduation rates among students who enroll in a four-year college has increased only slightly, but there are many more students graduating high school and enrolling in college (Healey, Nagaoka, & Michelman, 2014).

The CPS four-year high school graduation rate has increased substantially as evidenced in the Figure 2 (Healey, Nagaoka, & Michelman, 2014):

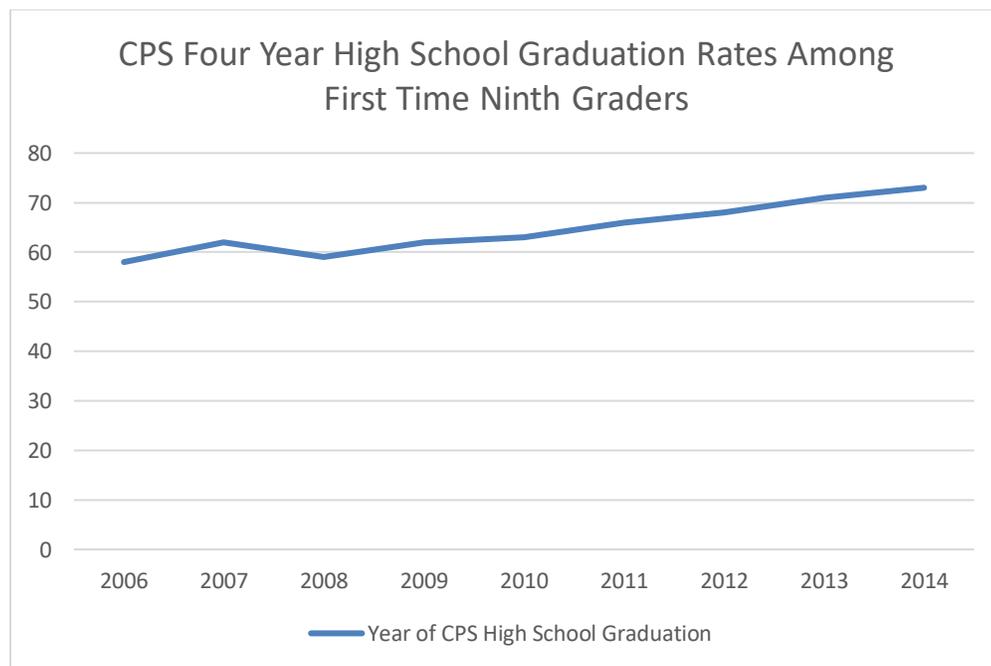
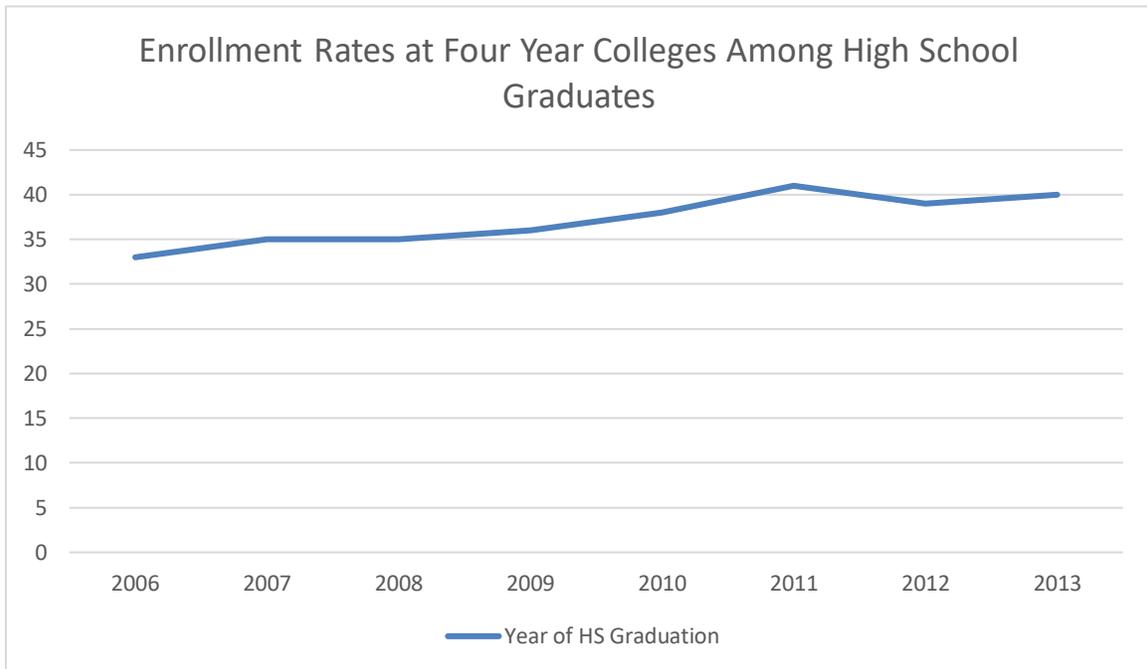


Figure 2. CPS four-year high school graduation rates among first-time ninth graders. Reprinted from Healey, K., Nagaoka, J., & Michelman, V. (2014). *The educational*

*attainment of Chicago Public Schools students: A focus on four-year college degrees.* The University of Chicago Consortium on Chicago School Research.

The four-year college enrollment rate has increased moderately as evidenced in Figure 3 (Healey, Nagaoka, & Michelman, 2014).



*Figure 3.* Enrollment rates at four year colleges among high school graduates. Reprinted from Healey, K., Nagaoka, J., & Michelman, V. (2014). *The educational attainment of Chicago Public Schools students: A focus on four-year college degrees.* The University of Chicago Consortium on Chicago School Research.

CPS also analyzed the graduation data by identifying the varying college graduation rates amongst the different ethnic/minority groups in the public school district from 2006-2014 (Healey, Nagaoka, & Michelman, 2014). High school graduation rates among first time ninth graders for Latino males were 52% in 2006, and 74% in 2014. Four year college enrollment rates among Latino male high school graduates were 21% in 2006 and 30% in

2013. Six year college graduation rates among four year college enrollees among Latino males were 40% in 2009 and 51% in 2012. The degree attainment index for Latino males in 2006 was 4% and in 2014, 11%. High school graduation rates among first time ninth graders for Latino females were 67% in 2006, and 83% in 2014. Four year college enrollment rates among Latino female high school graduates were 26% in 2006 and 37% in 2013. Six year college graduation rates among four year college enrollees among Latino females were 46% in 2009 and 51% in 2012. The degree attainment index for Latino females in 2006 was 8% and in 2014, 16%.

High school graduation rates among first time ninth graders for African-American males were 42% in 2006, and 57% in 2014. Four year college enrollment rates among African-American male high school graduates were 29% in 2006 and 34% in 2013. Six year college graduation rates among four year college enrollees among African-American males were 33% in 2009 and 32% in 2012. The degree attainment index for African-American males in 2006 was 4% and in 2014, 6%. High school graduation rates among first time ninth graders for African-American females were 61% in 2006, and 71% in 2014. Four year college enrollment rates among African-American female high school graduates were 36% in 2006 and 344% in 2013. Six year college graduation rates among four year college enrollees among African-American females were 41% in 2009 and 41% in 2012. The degree attainment index for African-American females in 2006 was 9% and in 2014, 13%.

High school graduation rates among first time ninth graders for White males were 65% in 2006, and 81% in 2014. Four year college enrollment rates among White male

high school graduates were 42% in 2006 and 52% in 2013. Six year college graduation rates among four year college enrollees among White males were 61% in 2009 and 64% in 2012. The degree attainment index for White males in 2006 was 17% and in 2014, 27%. High school graduation rates among first time ninth graders for White females were 76% in 2006, and 88% in 2014. Four year college enrollment rates among White female high school graduates were 48% in 2006 and 59% in 2013. Six year college graduation rates among four year college enrollees among White females were 61% in 2009 and 70% in 2012. The degree attainment index for White females in 2006 was 22% and in 2014, 36%.

High school graduation rates among first time ninth graders for Asian-American males were 80% in 2006, and 89% in 2014. Four year college enrollment rates among Asian-American male high school graduates were 56% in 2006 and 60% in 2013. Six year college graduation rates among four year college enrollees among Asian-American males were 62% in 2009 and 66% in 2012. The degree attainment index for Asian-American males in 2006 was 28% and in 2014, 35%. High school graduation rates among first time ninth graders for Asian-American females were 89% in 2006, and 95% in 2014. Four year college enrollment rates among Asian-American female high school graduates were 60% in 2006 and 67% in 2013. Six year college graduation rates among four year college enrollees among Asian-American females were 67% in 2009 and 69% in 2012. The degree attainment index for Asian-American females in 2006 was 36% and in 2014, 44%.

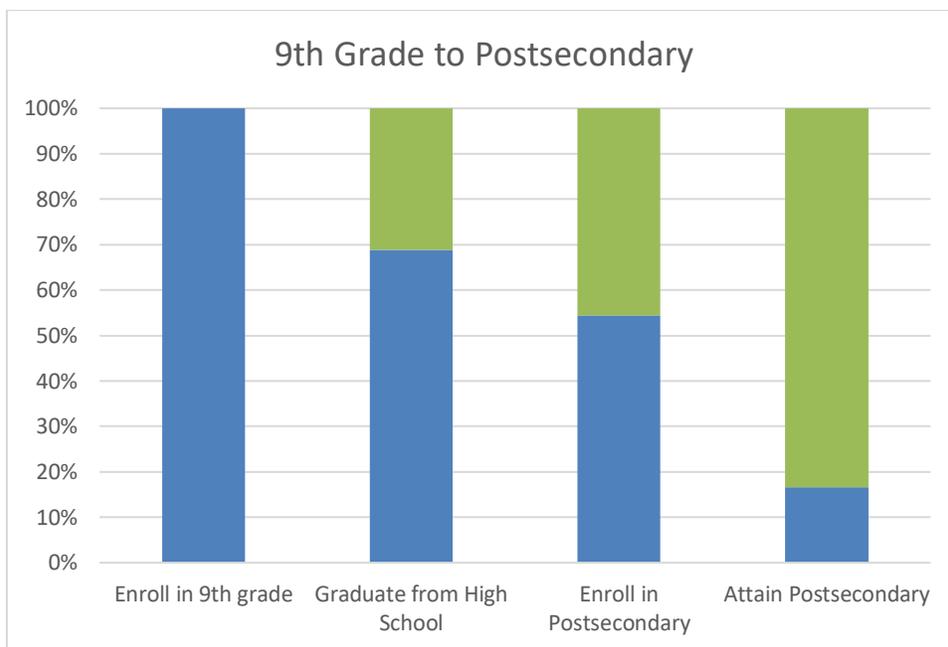
In both 2006 and 2014, white and Asian students had higher high school graduation rates than African American and Latino students (Healey, Nagaoka, & Michelman, 2014). White and Asian students continue to have higher college graduation rates than African

American and Latino students (Healey, Nagaoka, & Michelman, 2014). These numbers highlight the important issue of addressing the achievement gap to adequately remedy the lower high school and college graduation rates amongst Latino and African American students.

CPS also studied the issue of selectivity admission rates amongst several Chicago universities and colleges and the correlation in graduation rates for minority students. Getting accepted to higher learning institution is one achievement, but the ultimate achievement is to graduate from the institution with a bachelor's degree. The CPS research shows that colleges with a high institutional graduate rate is more likely to graduate more students than those with less than a quarter of students graduating (Healey, Nagaoka, & Michelman, 2014). When students attend a college where less than a quarter of all students graduate, chances are they will not graduate either despite having strong qualifications (Healey, Nagaoka, & Michelman, 2014).

In 2010, the Houston Independent School District (HISD) published a degree attainment index of 15% (Mellon, 2010). Figure 6 shows data that were collected to track the high school and college graduation rates for students in HISD, especially the percentage of ninth graders that graduate from high school and obtain degrees within four and a half years (Mellon, 2010). The data cover ninth grade students that graduated from an HISD school in 2005. Of 100 ninth graders for the 2004-2005 school year, 69% graduate from high school, and 52% enroll in a postsecondary institution (either a 2 year or 4-year institution) (Apollo Consulting Group, LLC, 2010). Only 15% of HISD students that

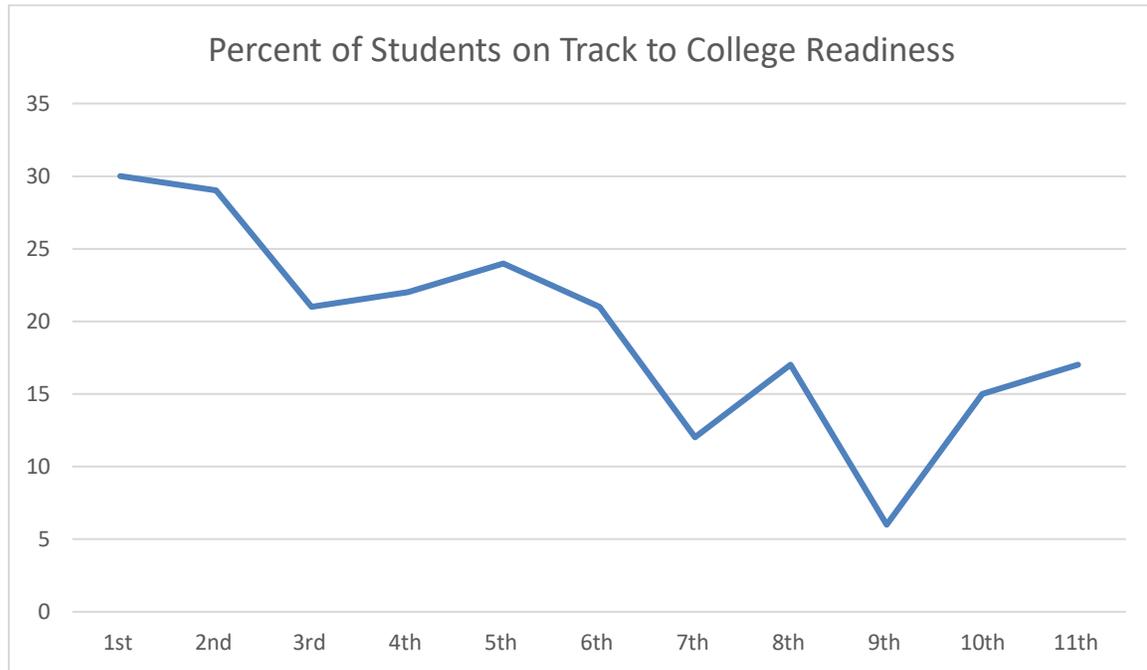
started their ninth-grade year in 2001 would go on to graduate from high school and to obtain a bachelor's degree (Apollo Consulting Group, LLC, 2010).



*Figure 4.* 9<sup>th</sup> grade to postsecondary graduation rates. Reprinted from Apollo Consulting Group, LLC. (2010). *A community effort to transform HISD: Update to the Board of Education.* [PowerPoint slides]. Retrieved from <http://www.sribd.com/doc/33183044/HISD-strategic-plan-update>.

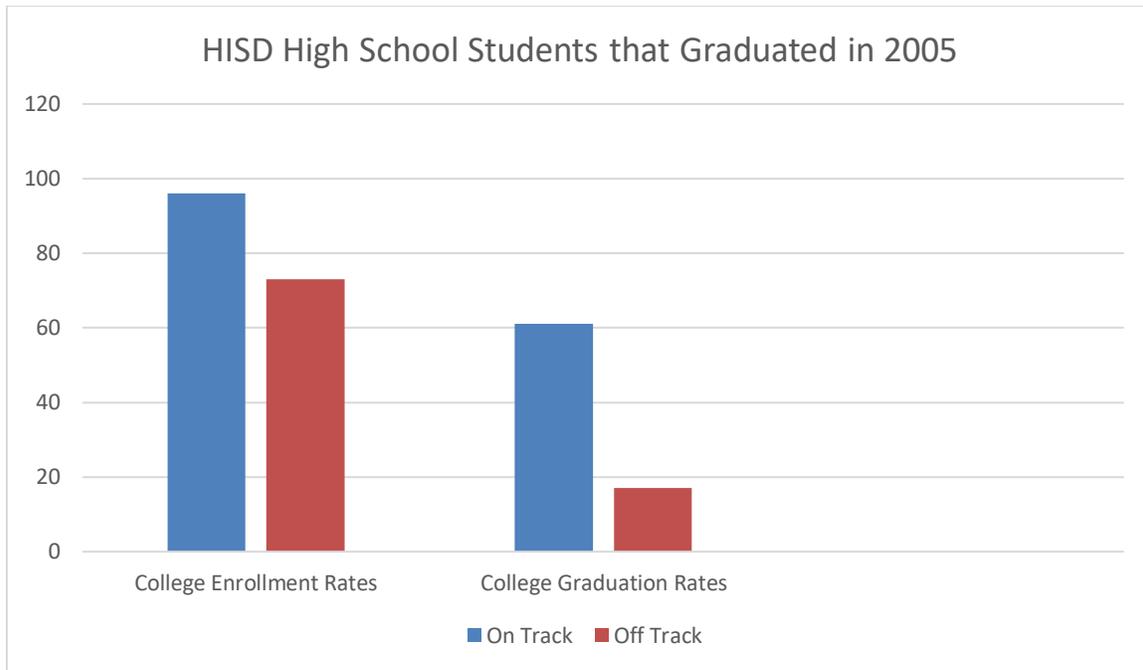
Additionally, HISD identified numerous factors that contributed to the profile of an on-track student that was ready for college. These factors included: having at or above 90% attendance for the school year; reading/English grades were at or above 80%; math grades were at or above 80%; standardized test scores for the Texas Assessment of Knowledge and Skills at or above 2300 for reading, 2300 for math, 3 for written composition; and taking pre-algebra or higher math courses by 8<sup>th</sup> grade (Apollo Consulting Group, LLC, 2010). The percent of students that were on track with college-

college readiness skills declined as the grade level increased (Mellon, 2010). In 2010, HISD reported percentages of students that were on track with the respective grade levels (Apollo Consulting Group, LLC, 2010) as shown in Figure 7:



*Figure 5. Percent of students on track to college readiness. Reprinted from Apollo Consulting Group, LLC. (2010). A community effort to transform HISD: Update to the Board of Education. [PowerPoint slides]. Retrieved from <http://www.sribd.com/doc/33183044/HISD-strategic-plan-update>.*

Students with college readiness skills were deemed to be on track, and were more likely to enroll in a 4-year postsecondary institution and earn a degree as illustrated in Figure 6 (Apollo Consulting Group, LLC, 2010):



*Figure 6.* HISD high school students that graduated in 2005. Reprinted from Apollo Consulting Group, LLC. (2010). *A community effort to transform HISD: Update to the Board of Education.* [PowerPoint slides]. Retrieved from <http://www.sribd.com/doc/33183044/HISD-strategic-plan-update>.

There is an apparent disparity with the college enrollment rates for off track students and their subsequent graduation rates from a postsecondary institution. Off track students are identified in HISD as those students who have not cultivated all of the college readiness factors to aid them in becoming successful in a postsecondary institution and obtaining a degree (Apollo Consulting Group, LLC, 2010). Consequently, postsecondary institutions have begun various programs and initiatives to assist off track students in providing them with the skills, resources, and knowledge required for success in a postsecondary institution. One of these programs that will be discussed more in detail, is the summer bridge program.

Upon graduation from high school, it has been found that minorities adjust to college differently than their nonminority counterparts. In the article, “Minority and Non-Minority Adjustment to College: Differences or Similarities?”, the authors investigated whether there were any differences or similarities between minorities and non-minorities in their adjustment to college (Elmers & Pike, 1997). The authors make note that recruitment of minority students is one thing but to retain those students and assist them in graduating from the institution to obtain their degrees is the ultimate goal. As discussed previously in the statistics provided by large public school districts, the high school graduation rates among minority students are bleak and become bleaker in regards to college graduation rates (Elmers & Pike, 1997).

In order to curb the problem of minority students’ lack of persistence and subsequent failure to graduate from a postsecondary institution, experts have made an effort to compile information regarding specific behaviors and attitudes amongst the minority population (Elmers & Pike, 1997). Some of the observed behaviors amongst underrepresented minority students in regards to persistence in college or academic achievement have been likened to those that contemplate suicide (Elmers & Pike, 1997). The behaviors are similar in that they withdraw from society and lack shared values and normative support. Tinto’s work in 1975 also studied the behaviors of students that contemplate dropping out of school or have dropped out to examine the reasons for that behavior and to contribute to the efforts in assisting students to persist in academia (Tinto, 1975). “Persistence in college is a function of social and academic integration. High levels

of integration in both spheres is more likely to lead to commitment, and commitment is more likely to lead to persistence” (Tinto, 1975, p. 78).

According to Tinto, there are four types of students in considering retention and attrition: (a) the persister; (b) the stop-out; (c) the attainer, and (d) the dropout (Tinto, 1975). As previously mentioned in an earlier chapter, a persister was a student who continuously enrolled without any interruption. A stop-out was a student who left the institution for a period of time and then returned for additional study. The attainer was the student who dropped out before graduation but after attaining particular goals. The dropout was the one who left the institution and did not return for additional study at any time (Tinto, 1975).

In the same work, Tinto also discussed the rites of passage such as separating from family and childhood support, experiencing transition where they begin to assimilate new values and behaviors, and then fully incorporating these values and behaviors (Tinto, 1975). Students who fail to complete successfully these rites are more likely to leave college. On the same note, as a precursor to attending college, Tinto’s attrition model specifies that students entering college bring with them a variety of attributes or precollege experiences and background characteristics that have an impact on educational expectations and commitments (Nora, 1987). Personal experiences and background shape the way that we learn and frames the way in which we perceive the world. In the same token, students bring with them a plethora of perspectives, experiences, and opinions that will shape their college going experiences as well (Nora, 1987).

Elmers and Pike (1997) found that academic integration had a more significant effect on persistence for African Americans than precollege characteristics. Their study consisted of results gleaned from an instrument called The Freshman Survey, which was a self-report tool for students to rate their experiences as a college freshman in a postsecondary institution. Results from the survey revealed that students felt more comfortable in an academic setting if they felt included in the setting (Elmers & Pike, 1997). Academic integration was a measure of students' perceptions of their academic experiences with faculty, counselors, and administrators, as well as perceptions about their career preparation at their institutions (Tinto, 1975). This measure was more about how the individual student perceived their experiences and was sometimes referred to as their individual evaluation (Tinto, 1975). As a result, postsecondary institutions should look for ways in which they can assist incoming minority students in becoming fully integrated in their academic setting.

Academic integration played a key role for minority students in contributing to their academic success. For both minority and nonminority students, academic integration was at least as important as entering ability in predicting academic achievement, and for minority students, academic integration was more important than entering ability in predicting first year achievement. (Elmers & Pike, 1997, p.92)

For non-minorities, a majority of the results reported more positive experiences than their minority counterparts. Minorities reported more feelings of isolation and alienation, less institutional commitment, and less external encouragement (Elmers & Pike,

1997). Minority students also reported the importance of having the encouragement and support of their parents and significant others (Elmers & Pike, 1997). For most minorities, attending college is viewed as a break from tradition, in contrast to their non-minority counterparts where attending college is considered an extension of a tradition. The social emotional aspect of attending college was deemed to be just as important as the academic achievement component (Elmers & Pike, 1997). In a study by Amaury Nora, the author found that encouragement and support by family and significant others represents an attitudinal variable that has been found to have direct effects on dropout (Nora, 1987).

Quality of the institution also played an important role in minority students in deciding whether to return to the campus. Minority students' responses reflected the significance they assigned in an institution in terms of quality especially in how they perceived the quality of the course, academic content and instruction, and social support services provided to them throughout the academic year (Elmers & Pike, 1997). Minority students expressed the higher likelihood that they would return to a campus especially in terms of how they perceived the quality of the institution (Nora, 1987). Students with higher levels of institutional and goal commitments had higher levels of retention and were enrolled in more total semester hours, were more satisfied with their educational goal attainment, and earned some form of credential (Nora, 1987). They also will have higher levels of academic and social integration.

Similarly, in the article, "From Bakke to Hopwood: Does Race Affect College Attendance and Completion?", the authors investigate how whites and minorities differ in their college-going behavior (Light & Strayer, 2002). The authors begin by citing the

disparity in college graduation rates between whites and minorities. In addition, the authors posit that a consequence of this is due to the fact that minorities possess fewer favorable unobserved factors such as the effects of affirmative action (Light & Strayer, 2002). Affirmative action has allowed for some institutions to implement race based admissions policies in order to increase minority student enrollment, but the Supreme Court decisions in Bakke and Hopwood have whittled away at the original intent of the policy, leaving it scarcely beneficial for minority students and in a few extreme cases, obsolete altogether (Light & Strayer, 2002). As an example of the aftermath of these decisions, the University of California Berkeley reported in the fall of 1998 that 57% fewer minorities were offered undergraduate admission, the first-year affirmative action was not used in the admissions process, than for 1997 (Light & Strayer, 2002).

Underrepresented minority students experience various socioeconomic challenges that prevent them from enrolling in a postsecondary institution and graduating to obtain a bachelor's degree at a rate different from their white counterparts. For a while, affirmative action was implemented to remedy these apparent disparities and to provide underrepresented minorities with opportunities to attend and graduate from a postsecondary institution (Light & Strayer, 2002). It has been discovered that race based admission criteria effectively lower the cost of college attendance for minorities relative to Whites, allowing minorities to attend and graduate from a postsecondary institution without placing an economic burden on themselves and their families (Light & Strayer, 2002).

In highlighting the difference between whites and minorities, Light and Strayer found the following:

Almost two thirds of minorities choose the no college alternative (vs. 57.5% of whites), while another 11.3% attend a college in the first (lowest) quartile (vs. 8.6% of whites). Only 5.6% of minorities attend a top-quality college, while 13.1% of whites do so.

Within each attendance category, mean family income among minority respondents is 30% to 40% lower than the corresponding mean for whites. Family income is likely to be a key factor in explaining observed race differences in college going outcomes. (Light & Strayer, 2002, p. 39)

Additionally, the authors found that minorities are under-represented at the better colleges and have lower test scores than their white counterparts, which in part maybe due to the disadvantages that minority students have in terms of school quality and family resources (Light & Strayer, 2002). It has also been reported that minorities are less likely than whites to attend and complete college, especially at high quality colleges. The findings in the study also discovered that if a college's primary objective is to admit students with the highest likelihood of earning a degree, the findings' estimates suggest that postsecondary institutions are more inclined to recruit and enroll white students instead of minority students (Light & Strayer, 2002).

One of the favorable unobserved factors amongst students with a high enrollment and graduation rate is drive. The authors found that minority students were less likely than their White counterparts to possess the drive to attend college and to graduate with a

bachelor's degree (Light & Strayer, 2002). Although affirmative action has the positive effect of enrolling more minority students in postsecondary institutions, without drive, minority students have lower net graduation probabilities than their white counterparts.

### **Summer Bridge Programs**

According to Stolle-McAllister (2011), the goals of summer bridge programs are to remediate academic skills, introduce students to collegiate life, to help establish social networks, assist students in establishing goals, and motivate them to begin college with a positive outlook. This program consists of both academic and social components that bridge the gap from high school to college. The idea of improving academic skills and preparing students for college allows for better mental status, less stress, enhanced grades, and an increased likelihood that students will graduate and earn their bachelor's degree (Stolle-McAllister, 2011). Institutional support programs and activities also influence student success and retention (McCurrie, 2009). Many students who enter college academically unprepared require the immediate attention of the institution. Nitecki (2011) determined that institutional connection gives students a sense of belonging that will encourage persistence, self-efficacy, and ultimately lead to student success and graduation. Most colleges struggle with student retention, and have to be very creative in their efforts to improve student success rates. They often provide support services that are proactively directed at students' personal characteristics (academically and socially) and life challenges that will present during college life (Nitecki, 2011). The more the institution

reaches out and supports the student, the student is more apt to become motivated to persist, remain focused, and graduate (Stolle-McAllister, 2011).

Summer bridge programs offer academic support, social emotional support, fostering of new relationships on campus, and host many other activities that help students begin their transition from high school to their first year of college to begin positively and remain successful throughout. In “Getting Ready for College-An Implementation and Early Impacts Study of Eight Texas Developmental Summer Bridge Programs”, the authors studied the impact of eight developmental summer bridge programs in Texas (Wathington, Barnett, Weissman, Teres, Pretlow, & Nakanishi, 2011). The Texas Higher Education Coordinating Board (THECB) funded 22 colleges to establish developmental summer bridge programs.

The standard components of a summer bridge program involve remedial instruction in math, reading, and/or writing and college preparation content for students entering college with low basic skills. The remedial courses are offered in the summer daily, 3-4 hours per day for about 4-6 weeks prior to students’ enrollment and first day of class at the postsecondary institution (Wathington, Barnett, Weissman, Teres, Pretlow, & Nakanishi, 2011). These remedial courses are offered in an accelerated format to assist students with acquiring the necessary knowledge and skills for a smooth transition into the postsecondary institution and to reduce the need for developmental education in college. The coursework is usually accompanied by tutoring, additional labs, and student support services. A summary of each institution’s academic support services is illustrated in Figure 7 (Wathington, Barnett, Weissman, Teres, Pretlow, & Nakanishi, 2011)

<b>Institution</b>	<b>Academic Support</b>
<b>El Paso Community College</b>	Mentoring program; mentor assigned to each class; structured time with mentors
<b>Lone Star College-Cy Fair</b>	Mentoring, tutor assigned to each class 4 hours per week
<b>Lone Star College-Kingwood</b>	Tutors present for entire time of each class; structured time with mentors
<b>South Texas College</b>	3 tutors and an estimated 3-4 hours per week of lab time
<b>Texas A&amp;M International University</b>	Involvement with mentors, tutors, academic support advisor, and program director
<b>Palo Alto College</b>	Tutors in class, mandatory daily tutoring sessions
<b>San Antonio College</b>	Tutoring and lab time available on a voluntary basis
<b>St. Philip's College</b>	Use of labs and tutoring

*Figure 7. Summary of academic support services. Reprinted from Wathington, H. D., Barnett, E. A., Weissman, E., Teres, J., Pretlow, J., & Nakanishi, A. (2011). Getting ready for college: An implementation and early impacts study of eight Texas developmental summer bridge programs. New York, NY: National Center for Postsecondary Research.*

In addition to remedial courses offered in math, reading, and writing, a college knowledge component is also included that covers various topics such as information about localized college contexts, campus tours, available student services, college expectations such as study skills, faculty norms, time management, and college planning topics such as course taking, plans for transfer; and finally, topics in aligning education goals with career

plans and paying for college (Wathington, Barnett, Weissman, Teres, Pretlow, & Nakanishi, 2011).

College knowledge can be divided into social and academic components. A variety of topics such as study and test taking strategies, time management, career assessment, learning styles, tours of the campus, introduction to college resources, financial aid, and course or degree plans (Wathington, Barnett, Weissman, Teres, Pretlow, & Nakanishi, 2011). Social college knowledge topics included personal financial responsibility, motivation, behavioral expectations, and techniques for dealing with stress (Wathington, Barnett, Weissman, Teres, Pretlow, & Nakanishi, 2011).

The study conducted evaluations on 7 community colleges and one open admissions 4-year university. The eight institutions that were selected for inclusion in this study were: El Paso Community College, Lone Star College Cy-Fair, Lone Star College Kingwood, South Texas College (McAllen TX), Texas A&M International University (Laredo, TX), Palo Alto College (San Antonio, TX), San Antonio College, St. Philip's College (San Antonio). Again, these eight institutions all had four common features: accelerated instruction in math, reading, and/or writing; academic support; a college knowledge component; and the opportunity for participants to receive a \$400 stipend (Wathington, Barnett, Weissman, Teres, Pretlow, & Nakanishi, 2011).

Two types of programs were implemented during the summer bridge program: course based programs were essentially standard developmental courses, modified or condensed to create a shorter, more intensive experience and free-standing programs that were designed to provide students the opportunity to advance multiple skills by offering basic

skills instruction and were not based on a specific course (Wathington, Barnett, Weissman, Teres, Pretlow, & Nakanishi, 2011). The researchers summarized the structure for each of the summer bridge programs at the respective institutions (Wathington, Barnett, Weissman, Teres, Pretlow, & Nakanishi, 2011). At El Paso Community College, 100 hours were offered over a period of 5 weeks and was not course based. All levels were below college level and there were mixed student ability levels. The subjects offered were math, reading, and writing.

At Lone Star Community College Cy-Fair, 67 hours were offered over a period of 4 weeks and was course based. Only one level was below college level and there were no mixed student ability levels. The subjects offered were math, reading, and writing. At Lone Star Community Kingwood, 64 hours were offered in math and 52 hours in English over a period of 4 weeks and was course based (Wathington, Barnett, Weissman, Teres, Pretlow, & Nakanishi, 2011). Only one level was below college level and there were no mixed student ability levels. The subjects offered were math and writing. At South Texas College, 80-100 hours were offered over a period of 4 weeks and was not course based. All levels were below college level and there were mixed student ability levels. The only subject offered was math. At Texas A & M International University, 100 hours were offered over a period of 5 weeks and was not course based. All levels were below college level and there were mixed student ability levels. The only subject offered was math (Wathington, Barnett, Weissman, Teres, Pretlow, & Nakanishi, 2011).

At Palo Alto College, 60-76 hours were offered over a period of 4 weeks and was course based. 2 and 3 levels were below college level and there were no mixed student

ability levels. The only subject offered was math. At San Antonio College, approximately 97 hours were offered over a period of 5 weeks and was not course based. All levels were below college level and there were mixed student ability levels (Wathington, Barnett, Weissman, Teres, Pretlow, & Nakanishi, 2011). The subjects offered were math, reading, and writing.

In terms of recruitment, all colleges reached out to students who were likely to enroll (or were already registered) in the fall. They also devoted significant efforts to recruiting students who were undecided about college attendance in hopes that the summer bridge program could provide motivation for them to sway their decision in attending in the fall (Wathington, Barnett, Weissman, Teres, Pretlow, & Nakanishi, 2011). Students in the summer bridge programs were predominantly Latinx, recent graduates of high school, and willing to spend long hours in the summer studying to prepare themselves to enter college in the fall (Wathington, Barnett, Weissman, Teres, Pretlow, & Nakanishi, 2011). In terms of race and ethnicity, El Paso Community College, San Antonio College, Pal Alto College, South Texas College, and Texas A&M International University served more than 90 percent Hispanic students. At both Lone Star College Kingwood and Lone Star College Cy Fair, fewer than half of students were Hispanic (Wathington, Barnett, Weissman, Teres, Pretlow, & Nakanishi, 2011).

Several data sources were used for the analyses such as a baseline information form (BIF) prior to the random assignment process. The BIF collected basic data such as age, ethnicity, and gender. The eight colleges also provided student level transcript data for the same members participating in the study (Wathington, Barnett, Weissman, Teres, Pretlow,

& Nakanishi, 2011). Data were also collected from the THECB such as student enrollment and aggregate academic measures such as developmental courses attempted and passed. Interviews and observations were also conducted during a two day visit to each of the institutions (Wathington, Barnett, Weissman, Teres, Pretlow, & Nakanishi, 2011).

The results of the study found that program students did not enroll in either the fall or spring semester at significantly different rates than control group students; enrollment rates were high for both students. Also, while the eight developmental summer bridge programs examined had no effect on college enrollment rates, they appear to have improved student success rates in entry level college courses in math and writing (Wathington, Barnett, Weissman, Teres, Pretlow, & Nakanishi, 2011).

It was also found that the programs did not have any impact on fall 2009 registration rates; students in the program group registered for courses in the fall 2009 semester at a rate that is statistically indistinguishable from the registration rate of the control group. In terms of attempting college level courses, the study found that students who participated in a developmental summer bridge program went on to attempt the first college level math course at a significantly higher rate than students in the control group (Wathington, Barnett, Weissman, Teres, Pretlow, & Nakanishi, 2011)

The authors concluded the article by outlining four reasons why summer bridge was effective:

- (a) accelerated instruction because it provides at-risk students with the opportunity to enhance or improve upon their skills in a compressed time frame prior to their first semester in a postsecondary institution;
- (b) offer an array of support services to ease

the transition, both academically and socially, from high school to college; these support services allow for the students to develop relationships amongst their peers, college staff and personnel, tutors and mentors, and professors in fostering a long lasting relationship that will provide them with the boost and motivation to achieve their postsecondary academic goals; (c) help participants become accustomed to their new environment; the college knowledge component addressed some of the topics and issues that students may encounter their first time in a postsecondary institution such as making an appointment with academic advisors, understanding courses and credit structure, and financial knowledge in terms of academic and personal budgets; (d) students who successfully completed the program were provided a \$400 stipend. In making the stipend part of the program model, it enabled students to devote more time to their studies by reducing their need to work. (Wathington, Barnett, Weissman, Teres, Pretlow, & Nakanishi, 2011, p. 59).

The proponents for Summer Bridge programs also emphasize the economic repercussions in the failure to address the college retention/graduation rates for underrepresented minority students. With an increasing population in the United States, the education system must respond to an increasing workforce that must be academically prepared to create jobs in the future (Kallison & Stader, 2012). The effects of having a large percentage of high school graduates that are not prepared for college level work not only effects the graduates themselves, but also to their parents, institutions, governmental entities, and society at large. In essence, having a large number of high school graduates

not college ready creates a ripple effect with financial repercussions (Kallison & Stader, 2012).

The authors in the article, “Effectiveness of Summer Bridge Programs in Enhancing College Readiness,” set forth several consequential results that the country experiences economically as a result of not having high school graduates prepared to attend a postsecondary institution (Kallison & Stader, 2012). For example, postsecondary institutions offer developmental and remedial courses annually for high school graduates that are not academically prepared for postsecondary institutions. If the state of Texas would eliminate developmental education, the state would save at least \$88.5 million per year (Kallison & Stader, 2012). In the same article, the authors made note that 98% of all public U.S. community colleges offer developmental education course while 80% of four-year institutions offer developmental education. The cost in savings to the individual states and especially nationwide in reducing the need for developmental education requires an alternative initiative that can properly address the college graduation/retention issue for underrepresented minority students such as the Summer Bridge program (Kallison & Stader, 2012).

### **Summer Bridge Program Effects on Minorities**

As discussed in the prior section of this literature review, the summer bridge program was developed in response to a growing need among high school graduates that enroll and attend a postsecondary institution without the required skills for persistence and graduation. The following section will discuss summer bridge programs and how they have specifically responded to the needs of minority undergraduate students in postsecondary

institutions. One of the earliest studies of Summer Bridge programs for minorities was conducted by Philip R. and Barbara M. Newman in 1999 (Newman & Newman, 1999). The authors evaluated the effects of a summer bridge program in Ohio called the Young Scholars' Program (YSP). Since its inception in 1988, YSP was developed in response to a growing number of underrepresented minority high school graduates that were transitioning to postsecondary institutions. The authors cited the apparent disparity amongst African Americans, Hispanics, and Native Americans in college enrollment and graduation rates compared with their white counterparts (Newman & Newman, 1999).

YSP is unique in its programming characteristics in terms of its initial recruitment and involvement of program participants. The program begins the recruitment process during the 6<sup>th</sup> grade in middle school (Newman & Newman, 1999). To be eligible for the program, students must be members of an underrepresented minority group and be a first-generation college student from a low-income family. Nominations are submitted on behalf of the student by teachers, parents, counselors, community leaders, and are based on academic performance, and promise, and leadership (Newman & Newman, 1999). The original intent of the program to begin as early as 6<sup>th</sup> grade stems from the importance of developing and fostering long lasting relationships between program participants, program personnel and staff, and academic personnel and staff. This provides program participants with the opportunity to establish a social support system that will be in place throughout the academic career in the postsecondary institution (Newman & Newman, 1999).

The authors also discussed factors that influence college retention and graduation:

(1) Move over factors that precede college enrollment, such as attendance at a college oriented high school, parents' educational background, family's educational values and goals, the intention to attend college, clarity of career goals, and high school course work and grades

(2) factors related to the college or university, including availability of financial aid or other financial support, academic climate, availability of tutoring, student orientation of the faculty, acceptance into a degree granting program, availability of required courses, housing and roommate arrangements, and access to a mentor/and or academic advisor; and

(3) factors related to personal development, such as level of identity resolution, the ability to balance various demands (emanating from work, classes, extracurricular activities, social life, and family), degree of homesickness, feelings of alienation or social isolation, academic self- concept and academic self - efficacy, and the ability to seek out and obtain social and academic support.

(Newman & Newman, 1999, p.484)

These factors are also consistent with other studies and research that have analyzed the characteristics and behaviors of students who persist throughout their postsecondary institution experience and eventually obtain a bachelor's degree.

During the year the evaluation was conducted, program participant demographics included approximately 1500 students ranging from 7<sup>th</sup> graders to college juniors; composition was 78% African American, 6% Appalachian, 2% Asian American, 8% Latino/Hispanic, 1% native American, and 5% other or mixed ethnicity (Newman &

Newman, 1999). The program components of YSP are standard in comparison with other Summer Bridge programs. Academic coursework, social and cultural activities, and academic support services such as mentoring and tutoring are provided to program participants throughout the duration of the program. (Newman & Newman, 1999)

The authors concluded the evaluation by discussing elements of the program that may have contributed to its success, especially the retention YSP program participants in college. The recruitment process initiated in 6<sup>th</sup> grade during middle allowed for program participants to develop and foster relationships that were became integral in the social support network (Newman & Newman, 1999). YSP program participants felt more comfortable asking for assistance from program staff and personnel and especially from academic staff and personnel assisting them to become further integrated academically. The financial aid package also provided an incentive for underrepresented low-income minority students that would otherwise not have the financial means to attend a postsecondary institution (Newman & Newman, 1999).

A more recent study on the effects of a summer bridge program on African American students was conducted by Bir and Myrick in 2015 in which they examined whether there was a significant long term difference on this specific student population. The CHEER (Creating Higher Expectations for Educational Readiness) program was studied at a mid-size regional Historically Black College/University. The following standard program components were observed: 4-5 week span in the summer: offering of English composition and math courses that were credit bearing; daily lab sessions with faculty and staff support; and mentors such as CHEER alumni to provide additional

academic support (Bir & Myrick, 2015). The social component of the program included weekend sessions on a variety of topics such as conflict resolution, financial literacy, gender relations, and social networking. Students were encouraged to develop and relationships with one another as additional social support at the postsecondary institution (Bir & Myrick, 2015).

Bir and Myrick found that participants in the CHEER program had significantly higher GPAs first and second year retention rates in comparison with non-program participants. Program participants also had higher graduation rates but not significantly higher than those of non-program participants. The authors found that across the domains of GPA, retention, and graduation from the postsecondary institution, female African American program participants had higher rates than male African American participants. This may be in part due to the perceived negative stereotype amongst African American males in the postsecondary education system and feelings of marginalization in the system (Bir & Myrick, 2015).

Similarly in the longitudinal study by authors Cabrera, Miner, and Milem (2013), the New Start Summer Program based on the campus of the University of Arizona studied the program's long term effects and tracked program participants from 1993 to 2009 using data from the university that met specific criteria such as being a member of an underrepresented minority group (African American, Native American, or Latino); recipient of financial aid assistance; high school preparation information; and socioeconomic status (Cabrera, Miner, & Milem 2013). The study included 6,750 students who met the aforementioned criteria and completed surveys that asked various questions

about college choice process, high school activities, college goals, aspirations, and anticipated involvement, collegiate involvement, and perceptions of campus climate (Cabrera, Miner, & Milem 2013). As part of this study, researchers determined that non-responsiveness amongst study participants was not a significant issue. On the other hand, it was discovered that program participants had relationships with program staff and personnel, which allowed for a more fluid data collection without the need for multiple follow-ups.

Cabrera, Miner, and Milem found that participation in the New Start Summer Program was a significant, positive predictor of both first-year retention and GPA). Participation in the program also demonstrated an improved likelihood of retention with positive effects on academic performance and persistence. The authors did highlight the importance for future similar studies to be conducted to adequately investigate summer bridge programs' benefits for low income and underrepresented minority students (Cabrera, Miner, & Milem 2013).

Quality of the institution and an individual student's commitment to the institution are significant factors that influence the persistence and eventual graduation from a postsecondary institution. Selective universities tend to report higher graduation rates than their non-selective counterparts (Murphy, Gaughan, Hume, & Moore, 2010). The Challenge Program at Georgia Tech was created in response to the enrollment of underrepresented minorities to assist them with persistence and graduation from the university's prestigious institution. The accelerated bridge program has been serving underrepresented minority students since 1981 and provides a variety of academic and

social support services similar to other summer bridge programs previously discussed in this literature review (Murphy, Gaughan, Hume, & Moore, 2010).

The Challenge Program shares standard program components such as courses in calculus, chemistry, computer science, and English composition. The courses are non-credit but provide students with a preview of the content and pacing of freshmen coursework at Georgia Tech (Murphy, Gaughan, Hume, & Moore, 2010). The social component of the program invites parents of these first-generation students to attend various presentations and workshops targeted to provide additional support to the student. Parents have the opportunity to learn about university life such as housing arrangements, food plans, and co-ed visitation. The inclusion of parents in the program reinforces the significance of having a strong social support system for underrepresented first-generation minority students (Murphy, Gaughan, Hume, & Moore, 2010). One different characteristic of the Challenge Program is the financial stipend for participation. In other summer bridge programs, financial stipends are offered as an incentive to attend the program. In the case of Challenge, program participants are charged a nominal fee for participation to emphasize the value and importance of the program and its benefits for program participants (Murphy, Gaughan, Hume, & Moore, 2010).

The researchers Murphy, Gaughan, Hume, and Moore (2010) found that there was a positive association between participation in the summer bridge program and the likelihood for graduation. Programs such as the Challenge Program at a selective technical university attracts underrepresented minorities to attend and to pursue a bachelors' degree. Enrollment and graduation rates amongst underrepresented minorities at postsecondary

institutions in the areas of science, technology, engineering, and math are significantly low compared to their white counterparts. The Challenge Program provides the opportunity to close the achievement gap in these specialized areas and to encourage more underrepresented minority students to obtain their bachelor's degree at these selective universities (Murphy, Gaughan, Hume, & Moore, 2010).

### **Stigma and Its Effects on Program Participants**

In this section, I discuss stigma and its development as a social construction theory that has been used to explain the phenomenon between specific social groups in society. After this brief discussion, the section will proceed in citing various examples of the stigmatization of certain social groups and classes in affirmative action programs and healthcare programs. Finally, the section will conclude with a brief discussion on the unintended consequences of stigma-free remedial education and how the social construct of stigma relates to underrepresented minorities in summer bridge programs.

In his work, *Stigma: Notes on the Management of Spoiled Identity*, Erving Goffman postulated the concept of stigma to explain the apparent differential treatment amongst social classes and groups in society. The social hierarchal structure of society creates “insiders” and “outsiders” (Goffman, 1963). Insiders are usually perceived as the “normal” ones that project their construct and perception of social reality on the “different” ones, the outsiders. Stigmatization emerges from the dominance of the insiders in projecting their view of what is normal onto the outsiders (Goffman, 1963). Stigmatized individuals are identified through their perceived “difference” and are treated as other by the insiders. A difference in facial and physical attributes, race, religion, sexuality, criminality, and

intellectual abilities have come under the umbrella of stigma and is used in society to project the different treatment amongst these individuals (Goffman, 1963). The role of stereotypes in society and its convergence with attributes assist insiders to ideologically police social identity, social intercourse, and social norms (Goffman, 1963).

Goffman also discussed the interaction between the stigmatized individual and the normal individual. As a consequence of the “normal” projecting their perceived construct of social reality, stigmatized individuals become subjected to their social norms and rules, forced to comply and adhere to them (Goffman, 1963). Stigmatized individuals begin to examine the aspect of themselves that makes them “different” and make efforts to conform with the normal individuals, thereby altering and shaping their outer-selves in order to interact. Through this process, stigmatized individuals begin to reject the part of themselves that comprise their identity, eschewing it in order to be accepted into mainstream society (Goffman, 1963).

Racial stigma is one of the most prevalent forms of stigma in American society. The differences in race and ethnicity have influenced and shaped many governmental policies, especially in the area of education. The stigmatization of underrepresented minorities, especially students in postsecondary education, has been the focal point of many affirmative action debates for postsecondary education admissions policies (Onwauchi-Willig, Houh, & Campbell, 2008). Opponents of affirmative education for race based admissions policies have argued that these policies stigmatize beneficiaries of these programs further, subjecting them to unnecessary scrutiny and harming them (Onwauchi-Willig, Houh, & Campbell, 2008).

In the article, “Cracking the Egg: Which Came First: Stigma or Affirmative Action?” the authors explored whether there was a causal connection between stigma and affirmative action (Onwauchi-Willig, Houh, & Campbell, 2008). In referencing Goffman’s theory of stigma, it is evident that racial stigma predates the implementation of affirmative action policies and programs in the United States. The article discusses the history of racial stigma and especially cites the establishment of the Freedman’s bureau in the late 1800s (Onwauchi-Willig, Houh, & Campbell, 2008). Many Congressional opponents argued that the establishment of the Bureau would only further stigmatize the newly emancipated African Americans. The lack of historical context and attempt to propose color blind policies were and still are detrimental to the social status of African Americans, women, and other minority groups (Onwauchi-Willig, Houh, & Campbell, 2008).

Individuals that are stigmatized by society experience two types of stigma: internal and external. Internal stigma are feelings of dependency, inadequacy, and at times, guilt that can strike those who believe themselves to be beneficiaries of affirmative action (Onwauchi-Willig, Houh, & Campbell, 2008). A typical response: Sometimes I wonder, did I get this job because of my abilities or because they needed to fill a quota? External stigma is the burden of being treated or viewed differently by others, or as though one is unqualified, based on the assumption that one is a beneficiary of affirmative action (Onwauchi-Willig, Houh, & Campbell, 2008). These two types of stigma are vitally important in understanding how the stigmatized individual attempts to function in a “normalized” society and especially as participants in public policy program that are

intended to benefit rather than harm them (Onwauchi-Willig, Houh, & Campbell, 2008). To determine whether there was a causal connection between stigma and affirmative action, the study collected survey responses from both White students and students of color in the Class of 2009 at seven high ranked public law schools. The law schools were: (a) University of California Berkeley; (b) University of California, Davis; (c) University of Cincinnati; (d) University of Iowa; (e) University of Michigan, (f) University of Virginia, and (g) University of Washington (Onwauchi-Willig, Houh, & Campbell, 2008). An anonymous web based survey was conducted that asked students a range of topics. These topics included the following: whether they believed that they were eligible for affirmative action, whether they thought that they were viewed differently because of any perceptions of them as affirmative action beneficiaries, and what proportion of students from different races they believed had been admitted because of affirmative action (Onwauchi-Willig, Houh, & Campbell, 2008).

Onwauchi-Willig, Houh, and Campbell (2008) found that there was no statistically significant difference in internal stigma between students of color at the four law schools that do have affirmative action programs and the three that do not have such programs. They also showed that there are no significant harms resulting from internal stigma at these law schools, regardless of whether or not they had affirmative action programs in their admissions. In regards to external stigma, there was no significant impact on students surveyed students at both types of law schools (Onwauchi-Willig, Houh, & Campbell, 2008). Finally, students who attended schools without affirmative action repeatedly

expressed in their comments that viewed the lack of racial diversity as detrimental to their overall education (Onwuachi-Willig et al, 2008).

Besides education, affirmative action policies have also been implemented in the work force, especially in the private and public sector. In the article, “The Affirmative Action Stigma of Incompetence: Effects of Performance Information Ambiguity:”, the authors investigate the perceived stigma of incompetence of affirmative action beneficiaries in the workplace (Heilman, Block, & Stathatos, 1997). The researchers discussed how affirmative action beneficiaries in the workplace may carry the stigma of incompetence, due to the negative notion that affirmative action seeks to balance the racial and gender inequalities in the workplace by hiring those that may be less qualified than their non-affirmative action counterparts (Heilman, Block, & Stathatos, 1997).

Heilman, Block, and Stathatos (1997) discuss the significance of qualifications in the selection and hiring process and when these qualifications are seemingly absent, negative assumptions such as incompetence are drawn. The researcher began the study by recruiting subjects that have the ability to render management level and hiring decisions in an insurance company (Heilman, Block, & Stathatos, 1997). The material subjects were provided with an individual’s job description, employment application, and job activity summary over the course of 6 months. They were then asked to provide their reactions to the recently hired individual, make assessments about the individual’s likely career success, and provide some recommendations for organizational action (Heilman, Block, & Stathatos, 1997). The study tested whether disconfirming or confirming information about

the individual's qualifications would affect the stigma of incompetence for affirmative action beneficiaries (Heilman, Block, & Stathatos, 1997).

As part of their findings, Heilman, Block, and Stathatos (1997) concluded that there is a stigma of incompetence associated with affirmative action. It also indicated that people tend to dismiss qualifications as the basis for the hiring of those associated with affirmative action. In addition, the negative competence inferences accompanying the affirmative action label were not easily overpowered by information about successful job performance (Heilman, Block, & Stathatos, 1997). In order to overcome this negative inference, the information had to be unequivocal in its implications for the individual's competence. Information regarding the individual's qualification that was either imprecise and vague about the employee had the same non-mitigating effect on the affirmative action stigma (Heilman, Block, & Stathatos, 1997). The authors concluded that the results reported suggests that the affirmative action stigma of incompetence would persist regardless of an employee's success, promoting frustration for the employee and biased decision making among others in the work setting (Heilman, Block, & Stathatos, 1997).

Stigma also exists in the context of public policy programs intended to provide a public good for individuals that require the service in order to function properly in society. An example of one of these programs is affordable health care for the poor. In the article, "The Role of Stigma in Access to Health Care for the Poor", the authors conducted a mixed methods study wherein they examined whether stigma was associated with Medicaid or poverty and especially with access to care, quality of care, and self-reported health (Allen, Wright, Harding, & Broffman, 2014). The study involved 574 low-income adults and

included data collected from an in-person survey and follow up interviews. Numerous qualitative interviews were conducted to capture the experiences and feelings of the study's subjects (Allen, Wright, Harding, & Broffman, 2014).

In their research study, Allen, Wright, Harding and Broffman (2014), begin the discussion by connecting stigma with access to care and the importance of understanding stigma for participants in the affordable health care system. There are many barriers to accessing affordable health care but even after accessing it, an often overlooked barrier is stigma. Stigma prevents individuals in the affordable health care system from accessing the service due to the concept of acceptability (Allen, Wright, Harding, & Broffman, 2014). Beneficiaries in the affordable health care system experience feelings of internal and external stigma, preventing them from fully embracing the health services the system is intended to offer these individuals. The concept of acceptability postulates that “a provider’s refusal to accept a form of insurance is an acceptability barrier, but so are the patients’ and providers’ perceptions of each other in regard to race, class, age, or other sociodemographic characteristics” (Allen, Wright, Harding, & Broffman, 2014).

After the qualitative interviews were conducted, the study found that 14% of respondents described a stigmatizing experience in the healthcare system (Allen, Wright, Harding, & Broffman, 2014). The stigma was usually related to insurance status or stereotypes regarding poverty. 20% of respondents reported internal stigma, where they felt an internal sense of inadequacy and sometimes felt embarrassed because of their inability to obtain health insurance on their own (Allen, Wright, Harding, & Broffman, 2014). One respondent characterized her internal stigma as others judging you on your

social status as soon as you show the providers the health insurance card. She also felt that they viewed her as poor, lazy, and broke and part of the welfare class, further stigmatizing her in accessing services in the affordable health care system such as Medicaid (Allen, Wright, Harding, & Broffman, 2014).

In terms of experienced stigma, 80% of the time, the stigmatizing event occurred in personal interactions between the patient and provider (Allen, Wright, Harding, & Broffman, 2014). One patient shared her experience in the provider's facility when the doctor told her directly that she was wasting taxpayers' dollars and other people like the doctor himself that had to pay for the healthcare system for people like her (Allen, Wright, Harding, & Broffman, 2014). Another patient described his experience at a provider's facility when the security guard followed him around and asked if he needed help and told him that he would take him directly to the doctor's office (Allen, Wright, Harding, & Broffman, 2014). Others also shared the stereotypes they felt were projected on them associated with drug and alcohol abuse. With regard to care, 38% of respondents reported unsatisfactory care and did not feel as if the provider took the time to address their health and medical needs (Allen, Wright, Harding, & Broffman, 2014).

The discussion of stigma is important in the healthcare context because everyone needs adequate access to a healthcare system that will respond to an individual's health and medical needs. When stigma is apparent and the negative stereotypes that are associated with the stigma are experienced internally and externally by the program participant, stigma becomes a barrier. Stigmatized individuals will be less inclined to seek the health and medical assistance they need if they feel that the system rejects them and

prefers not to deal with them. As part of the research study, Allen, Wright, Harding and Broffman (2014) emphasized the importance to consider stigma in this context and to craft policies and programs that will reduce stigma so that individuals that need these services most can access them without additional barriers.

In an effort to reduce stigma, careful considerations must be taken into account to avoid unintended consequences. In the article, “The Unintended Consequences of Stigma Free Remediation”, the authors examined the stigma-free practices at two community colleges in a large Midwestern city in the United States (Deil-Amen & Rosenbaum, 2002). The authors begin the article by explaining the cooling out method, which was used by community colleges to urge students to recognize their academic deficiencies and lower their aspirations (Deil-Amen & Rosenbaum, 2002). The cooling out process has been criticized for demoralizing students, lowering their plans, and lowering their expectations by indicating that they cannot meet their aspirations. The method of cooling out stigmatizes students in a subtle manner in an academic framework that provides little to no incentive of academic achievement (Deil-Amen & Rosenbaum, 2002).

In response to the cooling out method, community colleges began to utilize a stigma free approach. Deil-Amen and Rosenbaum (2002) found that the stigma free approach was used effectively, especially in boosting students’ confidence. Unfortunately, there were negative unintended consequences that were also identified in using this approach, such as delaying students’ recognition of their academic ability. The researchers found that some students did not understand the coding of courses or course structure overall and expressed their confusion in labeling courses as “developmental” instead of remedial (Deil-Amen &

Rosenbaum, 2002). The delay in recognition of their academic abilities was detrimental for these students in making important decisions about their academic careers and some did not realize the implications of their status until much later on (Deil-Amen & Rosenbaum, 2002).

The two community colleges included in this study offered a large number of non-credit bearing remedial classes. Within the larger academic framework, students expressed that they were not aware of their own remedial placements and it was not always clearly stated to the students (Deil-Amen & Rosenbaum, 2002). In utilizing the stigma-free approach, these colleges coded their remedial courses as developmental course and de-emphasized failure, emphasizing instead the students' need to improve their skills (Deil-Amen & Rosenbaum, 2002).

Community colleges convey a stigma-free message as a second chance to improve some minor weaknesses and enhance your skills. "The softer approach has clear advantages over a stigmatizing approach that discourages students by labeling them deficient, disregards their ability to improve, and reinforces their doubts about their potential." (Deil-Amen & Rosenbaum, 2002, p.257) Conversely, the reluctance to use language that may have negative connotations can prevent students from receiving clear information. Vague language can lead to confusion and unintended delays as evidenced in the results of the study (Deil-Amen & Rosenbaum, 2002).

Deil-Amen and Rosenbaum (2002) also found that students often went for several months, a full semester, or even a full year without knowing that their remedial courses are not counting toward a degree or their transfer goals (Deil-Amen & Rosenbaum, 2002). For

students with limited financial resources, this delay prevents them from making career decisions and instead creates negative outcomes. Over 73% of the students who had taken remedial courses were either unclear or wrong about the actual status of their remedial credits (Deil-Amen & Rosenbaum, 2002). Students who were taking multiple remedial courses seemed more confused about their situation. Despite the time and investment these students poured into these remedial courses, no one told them discouraging information regarding their academic status (Deil-Amen & Rosenbaum, 2002):

We found that students' perceived likelihood of attaining their degree goals did not decline as they took more remedial subjects. Moreover, the remedial students did not have lower degree goals. They were actually slightly more likely to indicate that they were aiming toward a bachelor's degree than were the nonremedial students. (Deil-Amen & Rosenbaum, 2002, p.262)

Summer bridge programs targeted to improve the college retention and graduation rates of underrepresented minorities can carry a stigma for program participants as well. In the article, "Learning Assistance and the Success of Underrepresented Students at Berkeley", the authors found that minority students were less likely to seek assistance from the academic institution as a result of a stigma that may be placed on them for seeking such assistance and rendering their admission to the institution deficient in comparison with their white counterparts (Robert & Thomson, 1994). Summer bridge programs for minority students provide the academic and social support that will help them to be on par with their white counterparts and to compete with more confidence (Robert & Thomson, 1994).

It has also been found that academic support programs that require the program participant to initiate contact are unsuccessful in recruiting at-risk and minority students. Students are less likely to seek participation in the program because they may perceive it as discrediting to their status there (Robert & Thomson, 1994). In an effort to combat low recruitment at Berkeley's Summer Bridge Program, students that are identified are offered a conditional acceptance to the university upon successful completion of the program. This is one way in which recruitment can be increased at a Summer Bridge program. In the following section, I will explore another option in which summer bridge programs can increase recruitment, through opt-in and opt-out programs.

### **Opt- In and Opt-Out Programs**

Extensive studies in the medical field have been conducted in investigating human behavior and the autonomous choice to participate in a program. In one such study, the authors of the article, "Recruiting Patients to Medical Research: Double Blind Randomised Trial of "Opt-In" Versus "Opt-Out" Strategies" studied whether there was a difference in participation rates for opt-in and opt-out programs (Junghans, Feder, Hemingway, Timmis, & Jones, 2005). Patients were randomly selected to an opt-in (asked to actively signal willingness to participate in research) or opt-out (contacted repeatedly unless they signaled unwillingness to participate) approach for recruitment to an observational prognostic study of patients with angina (Junghans, Feder, Hemingway, Timmis, & Jones, 2005). As part of their research, Junghans, Feder, Hemingway, Timmis, and Jones (2005) found that the recruitment rate for the opt-out arm (50%) was higher than the rate for the opt-in arm (38%) of the study.

The investigators observed that with prior medical studies, especially in which no new data are collected, the opt-in arm has a low response rate (Junghans, Feder, Hemingway, Timmis, & Jones, 2005). The traditional opt-in approach also assumes that patients are potentially willing to participate, and non-response to an initial approach can be followed up with further communication. “A poor response rate has also been found with an opt-in approach in screening clinic and when asking for direct consent to participation in a study” (Junghans, Feder, Hemingway, Timmis, & Jones, 2005, p. 940).

Patients for the study were selected if they had angina within the previous three years and were recruited from two general practices in London. Patients were initially invited by a letter from a general practitioner, to participate in a pilot for a study of patients with angina at their local hospital or surgery (Junghans, Feder, Hemingway, Timmis, & Jones, 2005). Patients in the opt-in arm were asked to return a reply card or to phone if they wanted to participate. Patients that expressed a willingness to participate were then contacted via telephone to arrange an appointment. A reminder letter was sent after 2 weeks if they had not contacted the research team; no further contact was made unless the patient initiated contact (Junghans, Feder, Hemingway, Timmis, & Jones, 2005). For the opt-out arm, patients were informed that they would be contacted by a researcher after two weeks, unless they declined participation by returning their reply card or contacting the researchers via telephone. Patients that did not opt out were then contacted by telephone and asked if they were willing to participate (Junghans, Feder, Hemingway, Timmis, & Jones, 2005).

The researchers found that 103 patients opted in after the first letter in the opt in arm and 50 patients opted out in the opt out arm (Junghans, Feder, Hemingway, Timmis, & Jones, 2005). After the second and final mail out in the opt in arm, 120 appointments had been made. In the opt-out arm, 151 appointments were made after patients were phoned after 2 weeks after the letter had been sent out (Junghans, Feder, Hemingway, Timmis, & Jones, 2005). After recruitment, no statistically significant difference occurred in attendance at the clinic between the 2 arms (80% opt in v 83% opt out). The apparent differences in recruitment rates for the two different arms might have been due to the fact that patients in the opt out arm were contacted directly by phone, whereas those in the opt in arm were contacted only by letter, unless they responded to the invitation (Junghans, Feder, Hemingway, Timmis, & Jones, 2005). People willing to participate may find it burdensome to opt in, a possibility supported by our findings that a higher proportion of functionally impaired patients were recruited in the opt-out arm (Junghans, Feder, Hemingway, Timmis, & Jones, 2005).

The investigators concluded the study by postulating that ease of participation may also contribute to the increased rates in the opt-out arm. Respondents were burdened less with providing consent to participate whereas in the opt-in arm, respondents were required to provide consent through an overt act (Junghans, Feder, Hemingway, Timmis, & Jones, 2005). Although the opt-out arm may be perceived as a slight infringement on personal autonomy, it may be justified in circumstances in which the patient is duly informed and every effort is made not to influence the patient's decision. In this case, the benefit

outweighs the risk of harm to the patient (Junghans, Feder, Hemingway, Timmis, & Jones, 2005).

Similarly, in the article, “The Meaning of Default Options for Potential Organ Donors”, the researchers explore meanings to participation that individuals may assign to a program or policy (Davidai, Gilovich, & Ross, 2012). In some countries (Germany and The Netherlands) explicit consent or opt in policies require the individual to indicate their willingness to have their organs harvested in the event of a fatal accident. Other countries (Austria and Belgium) have presumed consent, or opt-out, policies where citizens must indicate their unwillingness to participate (Davidai, Gilovich, & Ross, 2012).

Opt-in countries have reported a 15% rate of participation whereas for opt-out countries, the rate exceeds 90% (Davidai, Gilovich, & Ross, 2012). Various factors may explain this discrepancy such as the efforts it takes to participate in the program. For opt-out countries, it is easier to be registered as an organ donor in contrast with opt-in countries (Davidai, Gilovich, & Ross, 2012). Donors may also be influenced with the prevailing default policy in a given country (Davidai, Gilovich, & Ross, 2012).

For example, Davidai, Gilovich, and Ross (2012) discovered that “participants in Germany, which employs an opt-in policy, found the act of agreeing to donate one’s organs in the event of one’s death to be relatively meaningful and substantial (akin to working overtime without compensation or to giving 20% of one’s annual income to charity (Davidai, Gilovich, & Ross, 2012). Participants in Austria, a country with a very similar culture and ethnic heritage but that employs an opt-out policy, found the act of agreeing to be a donor relatively lacking in meaning and rather insubstantial (akin to fulfilling one’s

duties at work or giving 2% of one's annual income to charity)." (Davidai, Gilovich, & Ross, 2012, p. 15203) As part of their research, Davidai, Gilovich, and Ross (2012), demonstrated the difference in meanings an individual will assign to the donative act will depend on how the country implements the process in which to participate as a donor.

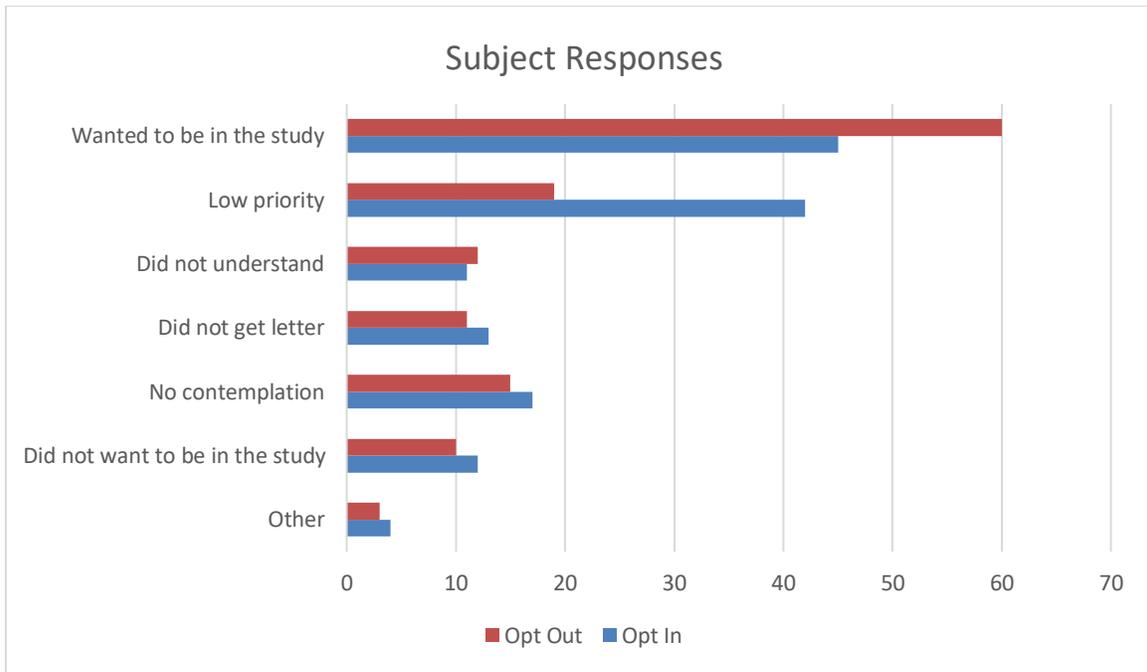
Participation or non-participation of individual citizens is heavily influenced by the meaning that people individually and collectively attach to the opt-in or opt-out choice in question. When citizens are presumed by the default option to be organ donors, organ donation is seen as something that one does unless some exceptional factor makes an individual particularly reluctant to participate. In contrast, when citizens are presumed by the default option not to be organ donors, organ donation is seen as something noteworthy and elective, and not something one simply does. (Davidai, Gilovich, & Ross, 2012, p.15203)

In another study, the investigators sought participants for a Vaccine Data Linkage project that yielded results where the opt-out arm was higher than the opt-in arm. The authors in the article, "A Randomized Controlled Trial to Compare Opt-in and Opt-out Parental Consent for Childhood Vaccine Safety Surveillance Using Data Linkage", found that the participation rate was 21% in the opt-in arm and 96% in the opt-out arm (Berry, Ryan, Gold, & Braunack-Mayer, 2002). In their study, Berry, Ryan, Gold, and Braunack-Mayer (2002), sought participants that had newborns before 2 months of age and were scheduled for their routine vaccinations. The participants were invited by a cover letter (addressed to the mother), along with an information leaflet and a reply-paid form (Berry, Ryan, Gold, & Braunack-Mayer, 2002). The project was called the 'Vaccine Data Linkage

Study', and permission was sought to link infants' 2- month vaccinations with any hospital visits occurring in the month afterwards to check for adverse events following immunization. Parents were directed to a dedicated website (Berry, Ryan, Gold, & Braunack-Mayer, 2002).

Participants in the opt-in arm were asked to return the reply form, contact via telephone or email or provide some other type of gesture to express their willingness to participate (Berry, Ryan, Gold, & Braunack-Mayer, 2002). As for participants in the opt-out arm, they were included in the study unless they communicated otherwise. All parents were given 4 weeks to respond. Within 4 weeks, 120 reply forms (21%) were received from the 564 parents in the opt-in arm, and 24 reply forms and one telephone message (4%) from the 565 parents in the opt-out arm (Berry, Ryan, Gold, & Braunack-Mayer, 2002). The participation rate was 21% in the opt-in arm and 96% in the opt-out arm (Berry, Ryan, Gold, & Braunack-Mayer, 2002).

Figure 8 illustrates subject responses. Subjects were asked about the return or non-return of the reply form (Berry, Ryan, Gold, & Braunack-Mayer, 2002, p. 624). The investigators also found that the most common reason for not opting in was respondent burden: 42% viewed the study as a low priority, resulting in only half of those who wanted to participate (45%) opting in (20%) (Berry, Ryan, Gold, & Braunack-Mayer, 2002).



*Figure 8.* Subject responses. Reprinted from Berry, J. G., Ryan, P., Gold, M. S., & Braunack-Mayer, A. J. (2002). A randomized controlled trial to compare opt-in and opt-out parental consent for childhood vaccine safety surveillance using data linkage. *Journal of Medical Ethics*, 38(10), 619-625.

### Summary

The current research regarding post-secondary graduate rates has emphasized the urgency of increasing these rates, especially for underrepresented minorities (Healey, Nagaoka, & Michelman, 2014). Urban large school districts across the country struggle in closing the achievement gap among these underrepresented demographic groups and continue to work to identify different ways to curb the drop-out rates for high school students (Mellon, 2010). As a response to increase college retention rates in post-secondary institutions, college summer bridge programs have been created to assist

incoming students with college readiness skills. These college summer bridge programs have effectively assisted students with adapting to college academics and social life, preparing them for success (Stolle-McAllister, 2011). Unfortunately, participants that are identified eligible to participate in these programs may experience stigma which may impact their decision to participate in these types of programs (Light & Strayer, 2002). In a similar manner, public policy or health initiatives have experienced the reluctance of participants to participate in programs that may improve their health or social awareness. Some programs have been involved in research that has revealed the effect of opt-in and opt-out programs (Davidai, Gilovich, & Ross, 2012).

It is widely recognized that the urgency to increase post-secondary graduation rates is imperative and programs such as college summer bridge programs have been developed as a response to additionally prepare underrepresented high school graduates in large urban school districts. The reluctance of potential college summer bridge programs participants to commit to the program may be explained by stigma and the perceived notion of how others' might judge them if they agreed to participate. The research remains limited on how college summer bridge programs or similar public policy programs could reduce the effects of stigma through the offering of opt-in programs.

## **CHAPTER III**

### **METHODS**

As previously mentioned in Chapter 1, the purpose of this study was to examine whether the presentation and framing of the information affects a significant difference in participation for automatically enrolled or not automatically enrolled or opt-in college summer bridge programs among underrepresented students. Specifically, four groups were studied to determine whether there is a significant difference in program participation and whether the presentation and framing of information before consenting to an automatically enrolled or opt-in feature of a program affects participation.

Participants were selected from one major high school within a large urban school district in the Houston area. Four groups of participants were created to determine whether the presentation and framing of information had an effect on the participation of students in summer bridge programs. Participants in two groups received a formal informational presentation based on a summer bridge program. The other two groups were only provided with oral application instructions and did not receive information regarding the program. Results from the experiment were analyzed using descriptive statistics and a nonparametric test. This chapter will include a discussion of the research questions, research design, data analysis and collection procedures relative to the methodology that was utilized to conduct the study. In addition, it will include a discussion of the instrumentation that was used to analyze the data.

## **Research Questions**

The following research questions were used to guide the purposes of this study:

1. Does the presentation and framing of information increase or decrease participation in a college summer bridge program for underrepresented students using an automatically enrolled format (opt-out approach)?
2. Does the presentation and framing of information increase or decrease participation in a college summer bridge program for underrepresented students using a not automatically enrolled (opt-in approach)?

## **Research Design**

The research design utilized a quantitative method, specifically a nonparametric chi-square test to investigate the relationships of the categorical variables in the study. After obtaining the level of significance using chi-square, Cramer's  $V$  was also used to test the strength of the relationship between the categorical variables. Between the four groups in this study, a total of 50 participants were randomly selected for each group. Therefore, an aggregate sample size of 200 participants were utilized for this study. These 200 participants were selected from the same urban high school within a predominantly large urban school district. The demographics of these participants were as follows: first generation high school graduates, parent(s) with limited English speaking proficiency, historically underrepresented groups and economically challenged.

Descriptive statistics was also used to summarize the characteristics of the general populations at both campuses. The data utilized in this design were nominal in form, primarily whether students participate in the college summer bridge program with a "yes"

response or “no” response. Two categorical variables were utilized, the first identified as the opt-in or opt-out program and the second identified as a “yes” or “no” response for participation in the program.

### **Setting**

For this study, participants were selected from the same urban high school and community neighborhood that exhibit similar demographics such as: first generation high school graduates, parent(s) with limited English speaking proficiency, historically underrepresented groups and economically challenged. The high school is part of a large urban school district in Houston, Texas, which serves approximately 209,772 students at 280 campuses. It is the seventh largest school district in the country, serving major parts of Harris County and the Houston metropolitan area. Of the students that attend the district, 65.24% are at-risk, 21.84% are English Language Learners, 18.67% are served in bilingual education, 79.83% are economically challenged, and 100% of the district qualifies for Title I funding. This information is represented in Figure 9, School District Demographic Percentages, 2018-19. Of the 1,035 students that attend this urban high school, 16.62% are African American, 80.77% Hispanic, 1.16% White, and 0.58% Asian. Additionally, 66% are considered at-risk, 94.01% economically disadvantaged, 21.84% English language learners, and 22% are served in an ESL/Bilingual Education programs. This information is represented in Figure 10, High School Demographic Percentages, 2018-19.

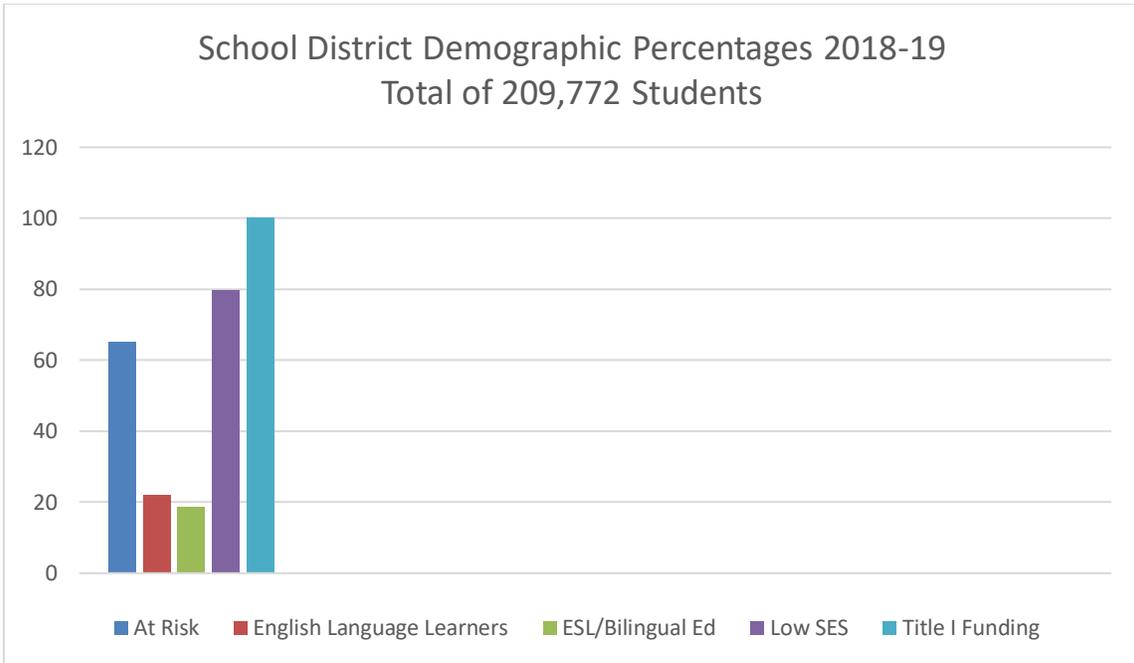


Figure 9. School district demographic percentages, 2018-19

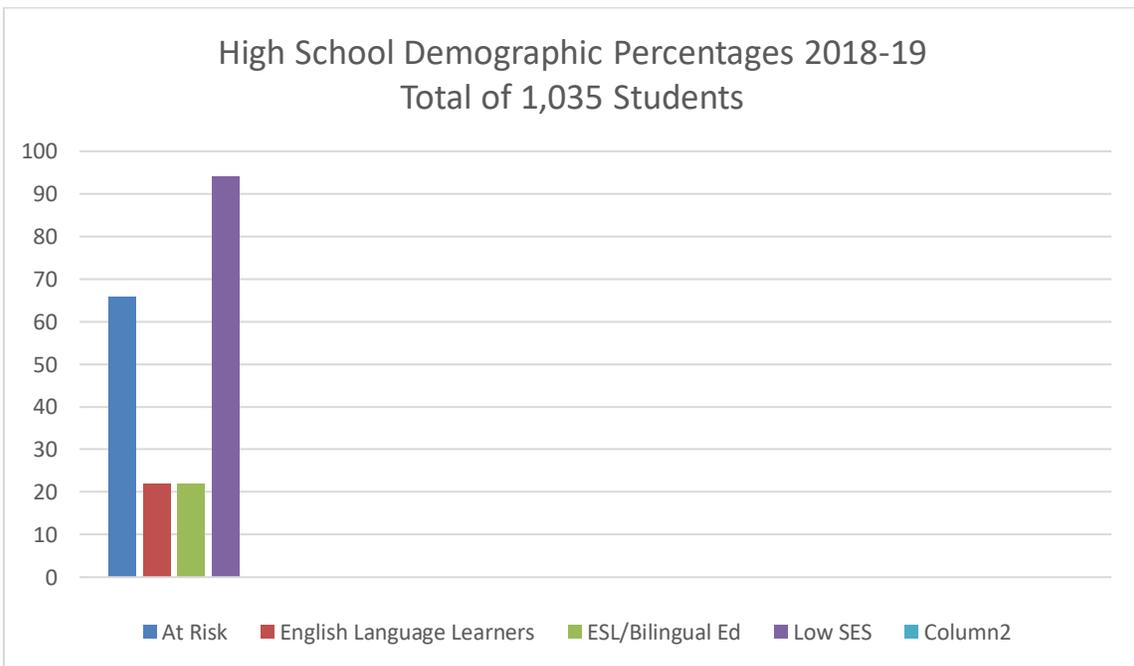


Figure 10. High school demographic percentages, 2018-19

## **Selection of Participants**

Participants were selected using the following characteristics for eligibility: (a) first generation high school senior on track to graduate; (b) intent of attending a post graduate institution; (c) at-risk; (d) parents with limited English speaking proficiency or underrepresented minorities, and (e) low socio-economic status. Students were selected using identifying criteria employed by the school district that is included in their permanent folders with the school district. This information is stored in a database, statewide, also known as the Public Education Information Management System (PEIMS). After the potential participants were identified utilizing the aforementioned criteria, informational flyers were posted throughout the campus informing the student participants of a research study that would be conducted and the request for their assistance and participation. The flyer also indicated that if the students were interested in participating in the study, that they would need to attend an informational meeting a week from the date the flyers were posted. A copy of this flyer with its relevant redacted portions has been included in this dissertation under Appendix A.

Of the identified eligible participants, 228 total expressed interest and attended the information meeting in the auditorium of the high school campus. At this meeting, the study facilitators informed the participants that they would then be randomly selected and assigned to one of four different groups. Randomization of participants for each group was created by using an excel spreadsheet.

As discussed in Chapter 2, underrepresented minority students will have a tendency to experience racial stigma especially in attending a post graduate institution. The selection

of the participants for this study intentionally focused on students from underrepresented minority groups to determine whether the presentation and framing of the information served as a moderating effect to the stigma experienced for college summer bridge program participants.

### **Instrumentation**

The instruments used were questionnaire-based packets of information that are similarly used in the recruitment process for college summer bridge programs. Questionnaires consisted of multiple choice, yes/no, and open -ended response formats. An example of the questionnaire is included in this dissertation, under Appendix E. Before the study was conducted, a brief explanation outlining the reasons and intent for conducting the study was given to each group of participants. After this brief explanation, if participants were willing to continue participation, they were required to complete an informed consent document. A copy of this document can be found under Appendix B of this record of study.

Two of the groups (Group A and Group B) were required to listen to a scripted presentation of information with an accompanying powerpoint regarding the college summer bridge program such as program benefits, program structure, and attendance requirements. The presentations were scripted in form and conducted by individuals approved through the IRB process. The presentations were uniform in format for both groups. Copies of the script and the presentation can be found respectively in Appendices C and D.

## **Data Collection Procedures and Time Frame**

Study participants were invited to attend a college summer bridge enrollment session scheduled in late Spring 2019, after obtaining the required consents and approval from the IRB. At the session, subjects were required to review informed consent documents and questionnaire packets. Participants were distributed randomly into 4 separate groups, Group A, Group B, Group C, and Group D. Group A was considered the automatically enrolled group. Group A also received the formal powerpoint presentation. Participants in Group A were already deemed “accepted” into the program. If a participant did not want to participate in the college summer bridge program, they had to complete the packet in its entirety and at the end of the packet, select the “opt-out” option to clearly express their choice to not participate in the program.

Group B also received the same powerpoint presentation, but they were considered the not automatically enrolled, opt-in group, meaning they were not in the program unless they completed the questionnaire packet in its entirety. If they wished to remain identified as not enrolled in the program as a participant, they had to actively opt-in to the program. Groups C did not receive the formal powerpoint presentation and was only given instructions regarding the application materials. Group C was considered the automatically enrolled group. If participants did not want to participate in the college summer bridge program, they had to fill out the questionnaire packet in its entirety and select the opt-out option to clearly express their unwillingness to participate. Group D did not receive any type of information either and only instructions regarding the application materials and were informed that they were not enrolled in the program and must complete the

questionnaire packet in its entirety in order actively opt-in the program and express their acceptance in participating in the program. Otherwise, they were deemed as non-participants and did not have to do anything further if they did not want to participate in the program.

The completed forms were collected at the end of the session. These sessions were conducted at the designated high school campus with the assistance of individuals trained in data collection techniques. Completed packets were analyzed using statistical analysis for the results of the study. More specifically, questionnaires were coded, organized and analyzed to demonstrate if there is a relationship with categorical data.

### **Variables**

For the purposes of this study, the categorical variables were the opting in or opting out of the program and the presentation of information before the questionnaire packets were completed. The study determined whether a relationship was found between the variables and the strength of such relationships. The questionnaire form collected basic information from the participants, such as name, current grade level, and race. Response format consisted of multiple-choice, yes/no, and open ended. At the end of the questionnaire, participants in Group A completed the questionnaire in its entirety; completion of the questionnaire packet deemed the participant as “opting-out”. Participants in Group B also completed the questionnaire packet in its entirety but had to select the “opt-in” clause of the document in order to be deemed as “opting in” to the program. Participants in Group C had to opt-out of to the program and were required to complete the questionnaire packet in its entirety. Group D participants were required to

opt in to the program and were required to completely the packet in its entirety unless they selected the opt-out option. As such, participants identified as “automatically enrolled” or “opt-out” were the number of frequencies tabulated for participation in either group. Thus, depending on the group, the categorical variable of presenting the information to the participants was used to determine whether there was a relationship between the presentation of the information to the actual selection to opt-in or opt-out of the Summer Bridge program.

### **Data Analysis**

A nonparametric test, specifically chi-square was utilized to test the correlation between the categorical variables. The categorical variables were the number of frequencies tabulated for participation in either the opt-in or opt out programs. Cramer’s V using crosstabs was used to test the strength of the relationship between the categorical variables. The Statistical Package for the Social Science (SPSS) was used to perform the tests and to determine the correlation/significance between the categorical variables.

## **CHAPTER IV**

### **RESULTS**

This chapter included the results for the data analysis related to the research questions. The main purpose of the study was to examine whether the presentation and framing of the information affects a significant difference in participation for automatically enrolled or opt-in college summer bridge programs among underrepresented students. Participants were selected from one major high school within a large urban school district in the Houston area. Of these participants, four separate groups were created to study the relationships among the categorical variables. The categorical variables were the automatically enrolled in or opting into the college summer bridge program and the information delivered in powerpoint presentation form.

The research questions addressed in this study are as follows:

1. Does the presentation and framing of information increase or decrease participation in a college summer bridge program for underrepresented students using an automatically enrolled format (opt-out approach)?
2. Does the presentation and framing of information increase or decrease participation in a college summer bridge program for underrepresented students using a not automatically enrolled (opt-in approach)?

#### **Data Analyses**

The study utilized a quantitative method, specifically a non-parametric chi square test to investigate the relationships of the categorical variables in the study. The value of the chi-square statistic provides an indication on whether there is a statistical relationship

between the variables (McMillan, 2006). After obtaining the level of significance using chi-square, it was then determined whether the null hypothesis would be accepted or rejected. Cramer’s V was then used to determine the strength of the relationship between the categorical variables. Depending on the value of the Cramer’s V it could then be determined whether the relationship between the categorical variables were strong or weak (McMillan, 2006). For the purposes of this study, the following cross tabulation table was used for all 4 groups:

Table 1.

*Crosstabulation for all Groups*

Group	Auto Opt -In	Auto Opt-Out	Total
Presentation	42	51	93
No Presentation	45	43	88
Total	87	94	181

The crosstabulation table is used to obtain the expected number of cases under the hypothesis that no relationship exists between the categorical variables (McMillan, 2006).

**Research Question One**

*Does the presentation of information increase or decrease participation in a college summer bridge program for underrepresented students using an automatically enrolled format (opt-out approach)?*

The sample included 84 participants who were given the scripted powerpoint presentation and 88 participants who did not receive the scripted powerpoint presentation. The null hypothesis for this question was that there was no relationship between the categorical variables of being given a presentation and the participant’s decision to opt-in

to the college summer bridge program. The data in Figure 11 represents participants in Groups A and C. Groups A and C were identified as automatically enrolled in the college summer bridge program.

This meant that they were deemed to be considered already in the program and if they did not want to be considered a participant of the program, they had to fill out the questionnaire packet in its entirety and at the end of the form, select the “opt-out” option. As represented in the figure below, Group A was given the scripted powerpoint presentation. Of this group, 34 of the participants chose to remain as an enrolled in the program as a participant while 8 participants, or 19.05% out of the group completed the questionnaire packet in its entirety and actively selected the “opt-out” option to not participate in the college summer bridge program. Group C was not given a presentation and out of this group, 26 participants decided to remain as enrolled as a program participant while 19 or 45.22% of the participants completed the questionnaire packet in its entirety to “opt-out”.

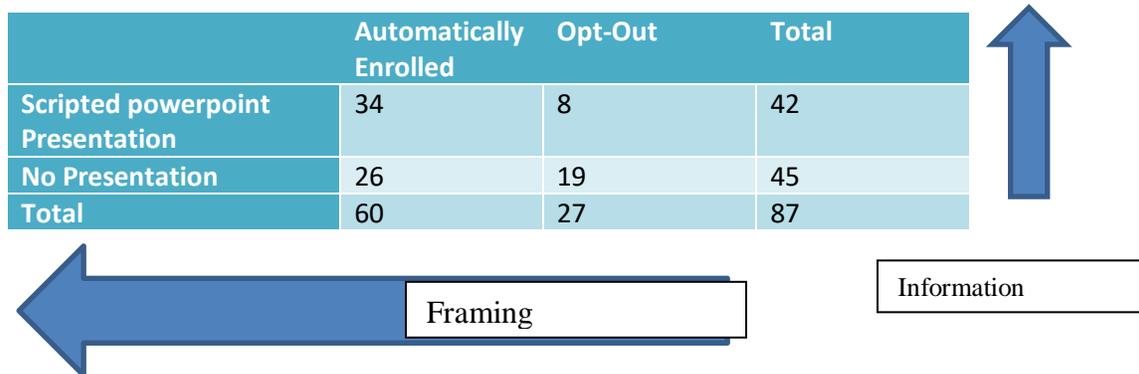


Figure 11. Groups A and C, Automatically Enrolled.

Chi-square tests were performed between the categorical variables of opting-in/opting out and the scripted powerpoint presentations or the absence of such to determine whether the difference was statistically significant. Participants in Groups A and C, the chi-square value was 4.422, with degrees of freedom of 1, a critical value of 3.841, p-value of 0.035 and a value of Cramer’s V of 0.731. As noted, the chi-square value of 4.422 is higher than our critical value of 3.841, with a significance level of 0.035 which is less than 0.05, allowing us to reject the null hypothesis.

For these particular Groups of A and C, we can accept the alternate hypothesis that there is a relationship between the categorical variables of opting-in and the scripted powerpoint presentations. As for the Cramer’s V value of 0.731, it can be determined that there is a strong relationship between the categorical variables. In interpreting Cramer’s V, a value of 0 would indicate no relationship, a value of .20 or less would be a weak relationship, a value between .20 and .30 would be a moderate relationship, and above 0.30 would be a strong relationship between the variables.

	Chi-Square	Df	Critical Value	p-value	Cramer’s V
Groups A and C	4.422	1	3.841	0.035	0.731

Figure 12. Chi-square Test for Groups A and C.

### Research Question Two

*Does the presentation of information increase or decrease participation in a college summer bridge program for underrepresented students using a not automatically enrolled (opt-in approach)t?*

The sample included 84 participants who were given the scripted powerpoint presentation and 88 participants who did not receive the scripted powerpoint presentation. The null hypothesis for this question was that there was no relationship between the categorical variables of being given a presentation and the participant's decision to opt-into the college summer bridge program. The data in Figure 13 represents participants in Groups B and D. Groups B and D were identified as not enrolled as program participants of the college summer bridge program.

This meant that they were deemed to be considered not in the program and if they wanted to be considered a participant of the program, they had to fill out the questionnaire packet in its entirety and submit it. As represented in the figure below, Group B was given the scripted powerpoint presentation. Of this group, 23 of the participants chose to "opt-in" as a participant while 28 participants of the group remained as not enrolled in, choosing not to participate in the college summer bridge program. Group D was not given a presentation and out of this group, 4 participants decided to "opt-in" to the college summer bridge program while 39 participants remained with their status of not enrolled into the summer bridge program.

	Not Automatically Enrolled	Opt-In	Total
Scripted powerpoint Presentation	23	28	51
No Presentation	4	39	43
Total	27	67	94

The diagram features a table with three columns: 'Not Automatically Enrolled', 'Opt-In', and 'Total'. To the right of the table is a large blue arrow pointing upwards. Below the table, a large blue arrow points to the left, with a white box labeled 'Framing' positioned above it. To the right of the 'Framing' box is another white box labeled 'Information'.

Figure 13. Groups B and D, Not Automatically Enrolled, Opt-In.

Chi-square tests were performed between the categorical variables of opting-in/opting out and the scripted powerpoint presentations or the absence of such to determine whether the difference was statistically significant. Participants in Groups B and D, the chi-square value was 19.622, with degrees of freedom of 1, a critical value of 3.841, p-value of <.001 and a value of Cramer's V of 0.662. As noted, the chi-square value of 19.622 is higher than our critical value of 3.841, with a significance level of <0.001 which is less than 0.05, allowing us to reject the null hypothesis.

For these particular Groups of B and D, we can accept the alternate hypothesis that there is a relationship between the categorical variables of opting-out and the scripted powerpoint presentations. As for the Cramer's V value of 0.662, it can be determined that there is a strong relationship between the categorical variables. In interpreting Cramer's V, a value of 0 would indicate no relationship, a value of .20 or less would be a weak relationship, a value between .20 and .30 would be a moderate relationship, and above 0.30 would be a strong relationship between the variables.

## Summary

The purpose of this study was to investigate whether there was a relationship between presentations and framing of information and automatically enrolled in or opting-into college summer bridge programs. To achieve this purpose, a study was conducted at a major high school campus in a large school district in the Houston area. Participants for the study were selected based on eligibility criteria such as: (a) first generation high school senior on track to graduate; (b) intent of attending a post graduate institution; (c) at-risk; (d) parents with limited English speaking proficiency or underrepresented minorities, and (e) low socio-economic status.

After participants were identified, they were randomly distributed equally into four separate groups: Group A (considered the automatically enrolled group and also received the formal powerpoint presentation); Group B (also received the same powerpoint presentation, but they were considered the not automatically enrolled, opt-in group); Group C (did not receive the formal powerpoint presentation and was only given instructions regarding the application materials and was considered the automatically enrolled group); Group D (did not receive any type of information and was informed that they were not automatically enrolled and had to opt-into the program). After a chi square statistic and value of Cramer's V were calculated, a relationship between the categorical variables could be determined and also indicated the strength of the relationship between the categorical variables. The major findings of the study are as follows:

- a. A statistically significant relationship was indicated between the categorical variables of participants receiving a scripted powerpoint presentation on the

college summer bridge program and the participants' decision to opt into the program.

- b. A statistically significant relationship was indicated between the categorical variables of participants receiving a scripted powerpoint presentation on the college summer bridge program and the participants' decision to opt out of the program.

In the next chapter, I present the discussion of the findings, limitations, recommendations, and conclusions.

## **CHAPTER V**

### **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

College retention and graduation rates among underrepresented students in large urban school districts across the nation are much lower compared to their counterparts. Large urban school districts have also produced low numbers in terms of graduating underrepresented students from high schools across the country. Colleges and universities have created summer bridge programs as response to the low college retention and graduation rates among underrepresented students. These summer bridge programs target the academic and social needs of the incoming student and provide them with the support needed before their official first day at the university or college.

Summer bridge programs were developed in response to the growing need to academically and socially prepare first-generation and underrepresented minority students (Cabrera, Miner & Milem, 2013). These programs are offered during the summer prior to the first official semester for the student. Summer bridge programs have standard components which include academic courses tailored to prepare students that are not readily equipped to begin their first official semester at a post graduate institution and social programs that provide an in-depth view on the environment in these institutions as well as information on how to manage their time (Wathington, Pretlow, & Barnett, 2016). Extensive studies of summer bridge programs have also revealed their effectiveness in curbing retention and graduation rates for underrepresented minority students at these post graduate institutions (Wathington, Pretlow, & Barnett, 2016).

In an effort to investigate, what determining factor(s) could increase

participation in these college summer bridge programs, a study was conducted at a major high school campus in a large school district in the Houston area. Participants for the study were selected based on eligibility criteria such as: (a) first generation high school senior on track to graduate; (b) intent of attending a post graduate institution; (c) at-risk; (d) parents with limited English speaking proficiency or underrepresented minorities, and (e) low socio-economic status.

After participants were identified, they were randomly distributed equally into four separate groups: Group A (considered the automatically enrolled group and also received the formal powerpoint presentation); Group B (also received the same powerpoint presentation, but they were considered the not enrolled, opt-in group); Group C (did not receive the formal powerpoint presentation and was only given instructions regarding the application materials and was considered the automatically enrolled group); Group D (did not receive any type of information and was informed that they were not enrolled and had to opt-in to the program). After a chi square statistic and value of Cramer's V were calculated, a relationship between the categorical variables could be determined and also indicated the strength of the relationship between the categorical variables.

## **Discussion**

### **Research Question One**

*Does the presentation of information increase or decrease participation in a college summer bridge program for underrepresented students using an automatically enrolled format (opt-out approach)?*

To respond to this question, Groups A and C were identified as the automatically enrolled groups. The automatically enrolled groups were deemed already accepted into the college summer bridge program and were required to complete the questionnaire packet in its entirety if they wanted to opt-out of the college summer bridge program. The combined total for the selected participants in these groups was 87. Of these 87 participants, Group A consisted of 42 participants total and were given the scripted powerpoint presentation. Group C consisted of 45 participants total and were not given the scripted powerpoint presentation.

The null hypothesis for this question was that there was no relationship between the categorical variables of being given a presentation and the participant's decision to opt-in to the college summer bridge program. The data in Figure 14 shows that 34 participants in Group A decided to remain as enrolled into the college summer bridge program while 8 participants out of Group A decided to "opt-out". For Group C, 26 participants decided to remain as enrolled into the college summer bridge program and 19 participants decided to "opt-out". It is evident that the treatment group, Group A, had a higher percentage of participants that decided to remain enrolled in the college summer bridge program. It is also evident that with the treatment group receiving a scripted powerpoint presentation, there was a higher percentage of participants deciding to remain enrolled in the program. Group C participants did not receive a scripted powerpoint presentation, therefore a higher percentage of participants in this group made the decision to "opt-out" of the program. Without a scripted powerpoint presentation, participants were more likely to opt-out of the program.

Chi-square tests were performed between the categorical variables of opting-in/opting out and the scripted powerpoint presentations or the absence of such to determine whether the difference was statistically significant. For participants in Groups A and C the chi-square value was 4.422, with degrees of freedom of 1, a critical value of 3.841, p-value of 0.035 and a value of Cramer's V of 0.731. As noted, the chi-square value of 4.422 is higher than our critical value of 3.841, with a significance level of 0.035 which is less than 0.05, allowing us to reject the null hypothesis.

For these particular Groups of A and C, we can accept the alternate hypothesis that there is a relationship between the categorical variables of opting-in and the scripted powerpoint presentations. As for the Cramer's V value of 0.731, it can be determined that there is a strong relationship between the categorical variables. As such, it was revealed that the scripted powerpoint presentation for Group A participants had a significant effect on the percentage of participants that decided to remain as enrolled in the college summer bridge program. Without the scripted powerpoint presentation, participants were less likely to decide to remain as enrolled in the program, instead increasing the amount of participants that chose to opt-out.

### **Research Question Two**

*Does the presentation of information increase or decrease participation in a college summer bridge program for underrepresented students using a not automatically enrolled (opt-in approach)?*

To respond to this question, Groups B and D were identified as the not automatically enrolled, opt in groups. The opt-in groups were not accepted into the college

summer bridge program and were required to complete the questionnaire packet in its entirety if they wanted to opt-in to the college summer bridge program. The combined total for the selected participants in these groups was 94. Of these 94 participants, Group B consisted of 51 participants total and were given the scripted powerpoint presentation. Group D consisted of 43 participants total and were not given the scripted powerpoint presentation.

The null hypothesis for this question was that there was no relationship between the categorical variables of being given a presentation and the participant's decision to opt-in to the college summer bridge program. The data in Figure 16 shows that 23 participants in Group B decided to "opt-in" to the college summer bridge program, completing the packet in its entirety, while 28 participants out of Group B decided to remain as not enrolled. For Group D, 4 participants decided to "opt-in" to the college summer bridge program and 39 participants decided to remain considered as not enrolled. It is evident between these two groups, that the treatment group, Group B, had a higher percentage of participants that decided to "opt-in" to the college summer bridge program when compared with the participants in Group D. It is also evident that with the treatment group receiving a scripted powerpoint presentation, there was a higher percentage of participants deciding to "opt-in" to the program. Group D participants did not receive a scripted powerpoint presentation, therefore a higher percentage of participants in this group made the decision to not opt-in to the program. Without a scripted powerpoint presentation, participants were more likely to not opt-in to the program.

Chi-square tests were performed between the categorical variables of opting-in/opting out and the scripted powerpoint presentations or the absence of such to determine whether the difference was statistically significant. For participants in Groups B and D, the chi-square value was 19.622, with degrees of freedom of 1, a critical value of 3.841, p-value of <.001 and a value of Cramer's V of 0.662. As noted, the chi-square value of 19.622 is higher than our critical value of 3.841, with a significance level of <0.001 which is less than 0.05, allowing us to reject the null hypothesis.

For these particular Groups of B and D, we can accept the alternate hypothesis that there is a relationship between the categorical variables of opting-out and the scripted powerpoint presentations. As for the Cramer's V value of 0.662, it can be determined that there is a strong relationship between the categorical variables. As such, it was revealed that the scripted powerpoint presentation for Group B participants had a significant effect on the percentage of participants that decided to "opt-in" to the college summer bridge program. Without the scripted powerpoint presentation, participants were less likely to decide to opt-in to the program, instead increasing the amount of participants that chose to remain not enrolled.

It is evident that the automatically opted-in group, Group A, had the highest percentage of participants that decided to opt-in to the program, at approximately 81%. The approximate percentages for the remaining groups that had participants that decided to opt-in to the program were: Group B 45%, Group C 58%, and Group D 9%. Groups A and C, which were the automatically enrolled groups, had higher percentages overall of participants opting in to the program when compared with the other two groups, B and D.

Group B had a higher percentage than Group D with participants deciding to opt-in to the program but this percentage was considerably lower than the Group A percentage. If we examine this data carefully, it reveals that participants in groups that allow/identify participants as automatically enrolled, have higher percentages of remaining enrolled when compared with groups that require participants to actively opt-in to the program, such as the automatically opted-in groups. The not automatically enrolled opted-in groups had lower percentages of participants deciding to opt-in the program and even more so when no scripted powerpoint presentation was given to the participants.

### **Conclusions and Recommendations**

The primary interest of this study was to examine the participation of selected students in college summer bridge programs, specifically whether participation is affected by presentation of information before the participant makes the decision to enroll into the college summer bridge program. Findings were reported based on data collected from separate groups, using questionnaire packets and scripted powerpoint presentations. Two of the four groups were considered automatically enrolled into the college summer bridge program and the remaining two groups were considered not automatically enrolled opted in to the program. After the study was conducted, it was revealed that participants in groups that were considered automatically enrolled in to the college summer bridge program had higher percentages of participants requiring them to opt into the program.

In comparison, participants in groups that were considered not automatically enrolled opt-in had lower percentages of participants opting-in to the college summer bridge program. Additionally, groups that received the scripted powerpoint presentations

before participants made the decision of opting in or opting out of the college summer bridge program had higher percentages of participants opting-in when compared with participants that did not receive a scripted powerpoint presentation before participants made their decision.

Despite the fact that thousands of post-secondary students each year, it has become more apparent that college- readiness skills for particular groups of post- secondary graduate students are lacking. As a response to this growing demographic trend, post - secondary institutions across the nation have developed college summer bridge programs to help potential students with the college readiness skills they need in order to successfully graduate from these institutions (Kallison & Stader, 2012). Post-secondary graduate students, especially those that possess the following characteristics: (a) first generation high school senior on track to graduate; (b) at-risk; (c) parents with limited English speaking proficiency or underrepresented minorities, and (d) low socio-economic status have a more difficult time than their counterparts in graduating successfully from a post-secondary institution (Tinto, 1975).

Taking these critical factors into consideration will help policymakers and educational leaders across the nation to adequately respond to the increasing need to provide additional programs such as college summer bridge programs and the particular format in which participants will be recruited. One of the significant contributions of this study was to explore the option of modifying or creating a recruitment process for college summer bridge programs to increase participation for students that demonstrate the need for these programs. Throughout this study, it has been discussed at length the urgency of

school districts and post-secondary institutions to work collaboratively in finding ways to increase college graduation rates among underrepresented groups. Post -secondary institutions may want to re-examine their current recruitment process and the additional measures that can be taken to reduce stigma among potential participants and increasing participation.

The scripted powerpoint presentation aspect of this study increased participation among the selected participants. Post-secondary institutions in conjunction with major school districts and especially with the high schools might explore the possibility of hosting several informative presentations at regular intervals to inform potential college summer bridge program participants of the benefits and value in attending the program. Making a well-informed decision will help potential participants to decide whether they would like to participate in the program and may lead to increased rates of participation. Sending packets of information via email or to mailing addresses to potential participants may need to be modified by additionally offering an informative session for potential participants.

Additionally, post-secondary institutions that implement college summer bridge programs should also explore the possibility of identifying eligible participants with automatic admission into the program. The additional barrier of requiring potential participants to complete an additional step of completing a packet of information could be eliminated by sending a letter or email to the potential participant that they have been selected and can attend the college summer bridge program without fulfilling additional steps. The recommendation gleaned from this study would be to ultimately provide an opt-in aspect for these college summer bridge programs, circumventing the cumbersome

process that may be associated with filling out packets of paperwork in order to express acceptance and willingness to participate.

I would also like to caution that the use of any aforementioned research and data in this study for school boards and school districts must be simplified or adapted to their current understanding and knowledge of their relevant needs. The information that may be utilized by school boards and school districts must respond appropriately to their relevant needs and such information should be tailored for future use/action. Additionally, information from this study can be useful for school boards and school districts across the nation to re-evaluate certain educational and social programs that may be of benefit to students. School districts can modify the way that they currently identify students' social and academic needs and the program that are developed in respond to those needs.

Instead of providing students with the choice to enroll in a particular program, school districts may want to modify this enrollment process by just identifying the eligible student and automatically enrolling the student. The presentation and framing of information for identified eligible students may also be evaluated to ensure that important and relevant information is provided to students before they make a decision to opt out of a particular program. This may increase participation in programs developed in response to student's social and academic needs and close the achievement gap among particular demographic groups.

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APPENDIX A

FLYER POSTED AT HIGH SCHOOL CAMPUS



# APPENDIX B

## CONSENT FORM

(8/20/2017)

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TEXAS A&M UNIVERSITY HUMAN RESEARCH PROTECTION PROGRAM  
INFORMED CONSENT DOCUMENT

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**Title of Research Study:** EXAMINING THE EFFECTS OF THE PRESENTATION OF INFORMATION ON THE PARTICIPATION OF UNDERREPRESENTED STUDENTS IN A LARGE URBAN SCHOOL DISTRICT IN AN OPT-IN OR OPT-OUT SUMMER COLLEGE BRIDGE PROGRAM

**Principal Investigator:** Dr. Beverly Irby

**Protocol Director:** Geovanny Ponce

**Funded/Supported By:** This research is supported and funded by Texas A&M University.

**Why are you being invited to take part in a research study?**

You are being asked to participate because you fit the criteria of the research study. The criteria are that you self-identify as a high school senior student and are at least 18 years of age.

**What should you know about a research study?**

- Someone will explain this research study to you.
- Whether or not you take part is up to you.
- You can choose not to take part.
- You can agree to take part and later change your mind.
- Your decision will not be held against you.
- You can ask all the questions you want before you decide.

**Who can I talk to?**

If you have questions, concerns, or complaints, or think the research has hurt you, talk to the research team at (713) 478-4613 or [gponce@tamu.edu](mailto:gponce@tamu.edu). You may also contact the principal investigator at Texas A&M University, at (936) 870-5536 or [beverly.irby@tamu.edu](mailto:beverly.irby@tamu.edu).

This research has been reviewed and approved by the Texas A&M Institutional Review Board (IRB). You may talk to them at 1-979-458-4067, toll free at 1-855-795-8636, or by email at [irb@tamu.edu](mailto:irb@tamu.edu), if

- You cannot reach the research team.

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IRB APPROVAL DATE: 04/02/2019

**INFORMED CONSENT DOCUMENT**

- Your questions, concerns, or complaints are not being answered by the research team.
- You want to talk to someone besides the research team.
- You have questions about your rights as a research participant.
- You want to get information or provide input about this research.

***Why is this research being done?***

*The purpose of this study is to examine the participation of selected students in college summer bridge programs, specifically whether participation will be affected by presentation of information before the participant makes the decision to enroll into the college summer bridge program. The significance of the presentation of information will provide more insight on how participation can be increased for college summer bridge programs, especially for underrepresented students. Possible benefits of this research may include: increase high school students awareness of innovative college education opportunities and may allow future high school seniors to see the advantages of college bridge program that supports incoming college students.*

***How long will the research last?***

We expect that you will be in this research study for no more than 30 minutes. The presentation will be 15-20 minutes, and then 10 minutes will be given to complete survey once presentation ends.

***How many people will be studied?***

We expect to enroll about 200 people in this research study at this high school campus that meet the research study criteria (high school senior student and are at least 18 years of age).

***What happens if I say "Yes, I want to be in this research"?***

If you say "Yes, I want to be in this research," you will be asked to participate in a face-to-face brief presentation regarding the benefits of the summer bridge program, program requirements, and the enrollment process. At end of the 15-20 minute presentation, you will be given a brief survey printed on paper related to background and demographic information, as well as other general information will be distributed to all participants. This presentation will take place in the high school's auditorium and during the afternoon school hours.

***What happens if I do not want to be in this research?***

You can leave the research at any time and it will not be held against you.

***What happens if I say "Yes", but I change my mind later?***

You can leave the research at any time and it will not be held against you.

Document Version:



**INFORMED CONSENT DOCUMENT**

Your signature documents your permission to take part in this research.

\_\_\_\_\_  
Signature of subject (student)

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed name of subject (student)

\_\_\_\_\_  
Signature of person obtaining consent

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed name of person obtaining consent

## APPENDIX C

### SCRIPTED PRESENTATION WITH POWERPOINT

Good morning,

Each year, a small group of newly admitted freshmen students are invited to take part in the College Summer Bridge Program offered by \_\_\_\_\_.

The program was created to help ease the transition to college academic life and to provide a solid foundation before the start of the freshmen year in college. It is designed specifically to welcome those from underrepresented populations, first generation students and to provide them with resources that will help new students in the transition to college both academically and socially.

The program has three major components: academics, campus resources, and social development. The academic component of the program includes two courses, one in math and one in English. The campus resources component includes information workshops to communicate to students about available services on campus such as the financial aid office, the learning center, counseling, student health and wellness, disabled students program and services, transfer center, and job and career center. The social development component includes an array of activities such as participation in study groups, cultural activities, peer mentoring, and connecting students with similar backgrounds, majors, and career goals.

The goals of the summer bridge program are: (1) build a supportive peer network; (2) establish relationships with college faculty and staff; (3) become familiar with and utilize campus resources; (4) better understand academic expectations and college culture; and (5) learn or improve important transferable skills (study skills, test taking skills, time management, stress management, critical thinking, reasoning, problem solving, computer literacy, financial literacy, goal setting, resume and interviewing).

It is a unique 6 week program which has won praise from past participants. During the summer bridge program, students receive coaching on reading, writing, and math skills, study strategies, time management, personal budgeting, and related subjects within the context of the program. Participants also have the opportunity to get acclimated to their new surroundings, build student relationship skills, explore careers, build connections within the community by engaging in a service learning project, and connect with fellow students, faculty, and staff. Students also have individual advising sessions and will attend a Summer Orientation during the program. The program provides two excellent classes, housing, special co-curricular programs, and a strong sense of community. As a participant, you will have great teachers, meet other entering freshmen, benefit from peer mentors, and get a head start with your courses. The program is fully funded for participants.

**APPENDIX D**

**POWERPOINT SLIDES**

**Powerpoint Slide 1**



## Powerpoint Slide 2

### WHAT IS THE COLLEGE SUMMER BRIDGE PROGRAM?

- Each year, a small group is invited to attend the program at \_\_\_\_\_.
- Helps to ease transition from high school to college
- Jumpstarts academic career by building a solid foundation before start of classes
- Designed specifically to help underrepresented and first generation college students with academic and social resources

### Powerpoint Slide 3

#### THREE MAJOR COMPONENTS OF THE PROGRAM

- Academic
- Campus resources
- Social development

## Powerpoint Slide 4

### GOALS OF THE PROGRAM

- Build a supportive network
- Establish relationships with college faculty, staff, and students
- Become familiar with and utilize campus resources
- Better understand academic expectations and college culture
- Learn or improve transferable skills

## Powerpoint Slide 5

### OTHER DETAILS AND PROGRAM BENEFITS

- 6 week program
- Must attend all classes and activities
- Opportunity to interact and connect with other incoming freshmen
- Receive coaching skills for reading, writing, and math courses
- Get acclimated to college life by living on campus to experience it during the [program](#)
- Fully funded for program participants

# APPENDIX E

## QUESTIONNAIRE

COLLEGE SUMMER BRIDGE PROGRAM 2019

PLEASE PRINT CLEARLY

Intended Major: \_\_\_\_\_

Primary Language: English \_\_\_\_\_ Spanish \_\_\_\_\_ Other \_\_\_\_\_

Gender: Male \_\_\_\_\_ Female \_\_\_\_\_

Are you a current/former foster youth? \_\_\_\_\_

Do you have any children? Yes \_\_\_\_\_ No \_\_\_\_\_ If yes, how many? \_\_\_\_\_

High school GPA \_\_\_\_\_

Family/household income \_\_\_\_\_ How many people live in your household? \_\_\_\_\_

Occupation of parent(s)/legal guardian(s): Mother \_\_\_\_\_

Father: \_\_\_\_\_

Are you living in a single-parent home? Yes \_\_\_\_\_ No \_\_\_\_\_

If yes, with whom do you live? \_\_\_\_\_

Please indicate the highest level of your parent's or legal guardian's educational background.

Mother: No high school \_\_\_\_\_ Some high school \_\_\_\_\_ High school diploma or GED \_\_\_\_\_

Some college \_\_\_\_\_ Bachelor's degree \_\_\_\_\_ Graduate/professional degree \_\_\_\_\_

Father: No high school \_\_\_\_\_ Some high school \_\_\_\_\_ High school diploma or GED \_\_\_\_\_

Some college \_\_\_\_\_ Bachelor's degree \_\_\_\_\_ Graduate/professional degree \_\_\_\_\_

Race/Ethnicity: American Indian/Alaskan Native \_\_\_\_\_ Asian \_\_\_\_\_ White \_\_\_\_\_

Black/African American \_\_\_\_\_ Native Hawaiian/Pacific Islander \_\_\_\_\_

Hispanic/Latino \_\_\_\_\_ Other: \_\_\_\_\_

PLEASE ANSWER ALL QUESTIONS.

1. Will you attend college in the fall semester? Yes \_\_\_\_\_ No \_\_\_\_\_

a. If yes, please indicate the colleges that you submitted applications.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2. Have you applied for Free Application for Federal Student Aid (FAFSA)? Yes \_\_\_\_\_ No \_\_\_\_\_ If yes, when? \_\_\_\_\_

3. What high school did you attend?



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4. Do you plan on working over the summer? Yes \_\_\_\_\_ No \_\_\_\_\_ a. If yes, how many hours per week? \_\_\_\_\_

5. What are your educational, career, and personal goals? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

6. Please discuss your personal or academic strengths and challenges that you think you may face in college: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

The College Summer Bridge Program is a 6 week program consisting of 2 courses. Students who participate in this program will be able to accomplish greater academic success by establishing peer and staff relationships, familiarizing and using campus resources, and learning how to navigate their academic and college success.

Choose one:

\_\_\_\_\_ Opt-in--I am choosing to fully participate in the program and understand that checking this statement means that I am committed to completing all of the program requirements.

\_\_\_\_\_ Opt-Out--I am NOT choosing to fully participate in the program and understand that checking this statement means that I will NOT be considered for the program.