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A Quantitative Case Study on Policy and Access at an Urban, Public University

A Dissertation

Submitted to the Graduate Faculty of the  
University of New Orleans  
in partial fulfillment of the  
requirements for the degree of

Doctor of Philosophy  
in  
Educational Administration  
Higher Education

by

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B.A. The University of Toledo, 2008  
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May, 2020

## Dedication

I dedicate this manuscript to my grandparents. Their values, spirituality, morals and work ethic have guided me through my academic journey. I proudly stand on the shoulders of:

Otis and Gladys Gooden

Kelly and Francis Gowdy

Sterling and Evelyn Williams

I am my ancestors' wildest dreams.

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## **Abstract**

The purpose of this study was to examine how the use of standardized test scores may have had potential impacts on students of color at an urban public university. Historically, standardized test scores have disproportionately impacted students of color and other traditionally marginalized populations in education (Fair Test, 2018). The primary research question of this study addressed the outcomes associated with the heavy reliance on standardized test scores for admission at an urban, public institution. Additionally, the study examined the impact of admissions policies on race and access to higher education. The specific questions for the research included how admission rates varied according to student characteristics. In regards to race, what is the effect on admissions when admissions criteria are increased using standardized test scores?

This quantitative study adopted a case study approach. The specific context in this study examined the outcomes associated with increased admissions standards at the University of New Orleans, an urban public university. More specifically, this study only focused on students in the Greater New Orleans area. The primary goal of this research was to apply Disparate Impact analysis to examine if the increase in admissions standardized test scores changed the outcome of who (by race, socioeconomic status, gender, and community type) was admitted or denied admission to the University of New Orleans. This quantitative case study used two statistical tools, chi-square and binary logistic regression, to seek answers to two questions on the use of strict standardized test cut scores in admissions policies. This study added to the existing limited quantitative data on the impact of standardized testing on urban, public universities in the face of changing demographics in their regions. Results showed a significant decrease in applications during the change in admissions policy.

Keywords: Disparate Impact; urban education; admissions; standardized testing; signaling.

## CHAPTER 1

Although the Civil Rights Act of 1964 and the Higher Education Act of 1965 were designed to create more access for students of color, by outlawing discrimination and providing resources for access to higher education, many post-secondary institutions continue to show significant disparities in the racial make-up of their student body (Harper, Patton, & Wooden, 2009; Gerald & Haycock, 2006). The primary goals of these educational policies were to prevent discrimination in education and close the educational attainment gap; however, throughout the last 40 years, people of color have consistently struggled to gain equal access to post-secondary education (Nasir, 2012). Regarding the overall educational attainment disparity, 46% of Black students earned a baccalaureate degree within six years of enrollment, which is 26% less than the 72% of white students over the same period (National Center for Education Statistics, 2016). Additionally, 19% of Black citizens 25 and older have at least a bachelor's degree, which compared to 33% of white citizens (National Center for Education Statistics, 2016). Despite policies aimed at reducing these gaps, they are still readily observable.

Historically, the United States of America has had a long history of discrimination where students of color have received unfair treatment socially, politically, economically, and educationally due to their skin color (Washington, 2013). Reforms promoting access to education for marginalized groups have met resistance under the practice of racial segregation, social stratification, and discrimination in education. As a result, racial disparities continue to exist in bachelor's degree attainment from postsecondary education institutions (US Census Bureau, 2015). The gaps in achievement are evidenced by the graduation rates of students who started

postsecondary education in Fall 2010. Graduation and completion rates show that 64% of White students and 40% of Black students, a 24% gap, completed their degree (National Center for Education Statistics, 2019). To close the racial gaps in educational attainment, a critical analysis must examine the intersections of policy, race, and access in higher education.

The national population statistics show there are 13.4% Black people in the United States and 76.6% white people as of the 2010 census (U.S. Census Bureau, 2010). Comparatively, of the 20.5 million students enrolled in college in 2014, 14.5% were Black students compared to their White counterparts who made up 58.3% of college student enrollment (National Center for Education Statistics, 2015). While white students are indeed underrepresented in college enrollment, equal access must account for stratification in education or which types of students are enrolled at particular institutions. Related to access, stratification in education impacts where, or if, a student enrolls into post-secondary education. Additionally, the institution in which a student enrolls has an impact on access to resources and completion rates (Carneval, Quin, Repnikov, Strohl, & Van Der Werf, 2018). Embracing the spirit of access, true educational access requires all students to have an equal choice in the institution they can attend.

Despite an increase in the number of non-white high school graduates, access to education is not equal when considering the types of institutions students of color are accessing (Baum & Ma, 2016; National Student Clearinghouse Research Center, 2017; Harper & Davis, 2018). Access from an equality lens not only shows that disparity gaps in education exist, but traditionally underrepresented students are stratified and overrepresented in community colleges while being less represented in selective institutions (Astin & Oseguera, 2004; Baylor, 2016). Students of color are less likely to attend a four-year university, which has significant impacts on their likelihood of attending part-time and ultimately not completing requirements for a bachelor's degree (Complete

College America, 2011). The gaps in community college enrollment and four-year colleges are critical to explore due to wide gaps in persistence and completion for students. White students are overrepresented at selective public colleges (Carneval, et al., 2018) compared to students of color, who make-up nearly half of enrollment at community colleges. Despite making up nearly 35% of the community college population (Community College Research Center, 2018), only 8.6% of Black students who attend two-year colleges ever complete a baccalaureate degree (Shapiro et al., 2017). In contrast, 46% of all students who start at a four-year college complete a degree within six years (National Student Clearinghouse Research Center, 2017). Given the drastically different outcomes by institutional type, examining access by race and institutional type is critical to closing the educational attainment gap. Moving more Black students from less selective institutions with lower graduation rates to more selective institutions with higher graduation rates would appear to be a promising strategy. An important step in implementing such a change would be to increase the admission of Black students into these more selective institutions.

It is within this context that emphasis is placed on the admissions policies used to access baccalaureate degree-granting institutions. More specifically, the U.S. Department of Education proclaims that standardized test scores have shown to be racially biased and may have disparate impacts on students of color (US Department of Education, 2000). As a result, an admissions policy that heavily relies on standardized test scores is likely to have disparate impacts on students of color who seek admission to institutions. That is, institutions which rely heavily on standardized test scores for admissions are likely to screen out students of color who would likely be successful on that campus.

This problem of disparate impacts on college admissions test scores will impact a growing segment of the American population. According to the American Council of Education (2015),

92% of America's population growth in the last decade occurred in communities of color (Asians, non-Hispanic Blacks, Hispanics, and Native Americans). Solving the issue of access to public universities becomes an economic imperative as higher education is a catalyst for upward mobility (Institute for Higher Education, 2008; Lewis & Hearn, 2003). Scholars have noted strong correlations between levels of education and earnings potential (Card, 1999; Hill, Hoffman, & Rex, 2005). Underscoring the importance of creating access to post-secondary institutions for students of color, the fastest growing population in the country, economists project that 60% of jobs will require a college education. (Perry, 2008). Having access to post-secondary education is a critical component for students and families and the overall benefit of the U.S. economy.

While gaps in enrollment exist across a variety of institutions nationally, there is critical importance to explore race and access at urban, public research universities given their geographic location and the racial demographics of the communities they were designed to serve. In 2017, more than 75% of public universities under-enrolled traditional-aged Black students (18-24) in relation to the demographics of their geographic location (Race and Equity Center, 2018). While many factors may impact enrollment, critical attention must first focus on the point of entry into college. Admission to the local, urban public university through standardized test scores becomes problematic when testing disproportionately impacts students of color, the fastest growing population in the United States. By 2020, population projections estimate that more than 50% of the population will be part of a minority group (US Census Bureau, 2014). In reference to pathways to post-secondary education, approximately 85% of the growth in the age group between 18 and 24 years will come from minority families over the next decade (U.S. Census Bureau, 2014). Given this demographic growth, analysis of policies should be developed to address educational disparities to ensure equal access to afforded to postsecondary institutions.

Within this context, particular attention is given to the type of community (urban, suburban, or rural) and the unique demographic characteristics of different community types. More specifically, critical research must be paid to urban communities and urban institutions. The last census revealed that “White students were concentrated in suburban and rural areas with lower percentages in cities and towns and Black, Hispanic, and Asian/Pacific Islander students were concentrated in cities and suburban areas” (Aud, Fox, & KewalRamani, 2010, p. 30). The mission of urban, public universities to serve their regions is of critical importance to race and access as 32 of the 50 largest cities in the U.S are majority-minority (U.S. Census Bureau, 2014). Despite these extensive demographic changes and some changes in admissions policies, racial disparities in enrollment have existed for decades (Schott Foundation, 2015). The disparities in enrollment call us to examine the admissions policies that determine who has access to post-secondary education at urban, public institutions. The positioning of access and admissions policies is best explored by analyzing shifting demographics and urban public universities.

Upholding the ideal of access to education for all becomes critical for scholars to identify current practices, trends, and institutional policies that challenge institutions from providing post-secondary education opportunities to all. Given the shifting demographics, institutions have increased importance to examine their admissions policies to ensure they do not drive disparate outcomes for minorities and students of color, including the use of standardized test scores.

### **Problem Statement**

Although much literature is noted on policy impacts on access (Heck, 2004; Harper, Patton, & Wooden, 2009; Hinrichs, 2012; Pellegrino, 2015), urban public universities (Blizek & Simpson, 1978; Grobman, 1988; Brownell, 1993; Johnson & Bell, 1995), standardized testing (Broome, 1963); Sedlacek, 2004; Syverson 2007, Umhofer, 2015), and shifting demographics (Astin, 1982;



Tiechler, 1988; Perry, 2008), research is limited on how these four educational issues converge and intersect in the context of an urban public university. More importantly, even less attention is paid to urban public institutions that heavily rely on strict minimum admissions requirements.

Chief among the literature on urban public universities is the mission of urban public institutions to provide accessible education to residents in their urban, geographic region (Brownell, 1993, Shapiro, et al., 2018). This urban serving mission is of increased importance to access at the crux of changing demographics. The Chronicle of Higher Education Survey reported that 44% of public colleges did not meet their overall enrollment goals in 2017 (Carlson, 2018). Of parallel importance for the workforce, institutions, and students, it is incumbent upon educational leaders to serve the increasingly diverse needs of students preparing to enter post-secondary institutions.

While many institutional policies are created and intended to solve a particular problem, they can also come with unintended consequences (Heck, 2004). Sedlacek (2004) notes that the goal of standardized testing to create a common way for universities to evaluate a broad range of candidates with varied backgrounds; however, many unintended consequences of test score policies have impacted underrepresented students at higher rates (Quan, 1979; Moulton, 1999; Alon & Tienda, 2007; Ford & Littlejohn, 2012). Over time, institutions evolved to rely heavily on standardized tests to better predict student success, retention, and the likelihood of graduation. Admissions policies are designed to assess a student's level of preparedness for the college-level course. Inherently, a change in minimum admissions standards may have an impact on the number of students who meet admissions requirements, which may limit access to institutions. In turn, the shift in standards has the potential to deviate from the institutional mission of urban public institutions while also disparately impacting the local community and students of color in the

process. It is of even more importance that access policies are conceptualized at urban, public institutions given their location and missions rooted in access.

As a policy that impacts access, submitting standardized tests for admission into college has been a critical rite of passage and a central component to the admissions evaluation process. Although the SAT and ACT are still used as the primary college entrance exams each year, the use of standardized test scores continues to be called into question for their inability to accurately reflect the academic abilities of students of color (Sedlacek, 2004).

In 1999, the most influential opposition against standardized testing occurred when the U.S. Education Department's Office for Civil Rights specifically similarly cautioned higher education on the use of standardized tests in admissions due to the tests' ability to misrepresent and discriminate against minorities (Gose & Selingo, 2001). Nearly a decade later, the National Association of College Admissions Counseling Commission (NACAC) on the Use of Standardized Tests (2008) issued concern that test score differences based on race and ethnicity persist among students who remain underrepresented in higher education. Reflective of decades of racial achievement gaps in standardized test scores, White students met 59% of benchmarks on the SAT in 2017 compared to 20% Black students (Jaschik, 2017). Similar racial gaps in test score achievement have been documented in the literature for over fifty years (Applebee, Langer & Mullis, 1987; Garcia & Pearson, 1993; Lewis, 2000). While a growing number of institutions are choosing to opt-out of requiring standardized test scores from prospective applicants (Bidwell, 2015), the majority of colleges and universities still do require such scores for admission and consider them in admissions decisions.

An examination of racial equity and access must analyze the impact of standardized test scores to gain a better understanding of impacts admissions policies on access for sub-groups of

students. While much research exists on the phenomena of urban public universities, shifting demographics, and standardized testing, research is limited on how admissions policies specifically impact access at urban public universities.

### **Statement of Purpose and Research Questions**

The disproportionate impact that standardized test scores have on traditionally marginalized populations has been noted widely in the literature (Moulton, 1999; Oneil, 1971; Pope, 2009). Research conducted in the context of an urban, public university is limited, particularly research examining shifting racial demographics. It is against this background that the primary research question addressed the outcomes associated with the strict use of standardized test scores for admission at an urban, public institution. Furthermore, this study examined the impact of admissions policies on race and access to higher education. The questions guiding this study are:

*Question 1:* How did admission rates change, if at all, from before to after the change in admission test requirements for selected subgroups of students at an urban, public university?

*Question 2:* For the period after the change in admission test requirements, do the variables of race and community type predict the likelihood of admission at an urban, public university?

### **Significance of the Study**

This study is significant because the data and findings add to the limited quantitative data existing on the effect that standardized testing has at urban public universities with increasingly changing demographics in their regions. Information can be drawn from this study to equip policymakers to implement more inclusive policies. Education policymakers, governing boards, and legislators can use the findings of this study to develop policies that will be more inclusive while also aligning the mission of urban, public universities with their core population. In addition,

these findings may have significance in empowering university systems to create and maintain their own admissions standards based on their missions, geographic locations, and unique contextual factors (such as shifting demographics). Through this, the process adds relevant information regarding the unique barriers that policies created in access to post-secondary institutions in urban communities.

The implications associated with this study suggest that an assessment of the potential impact of standardized test scores on race can and should be conducted to determine if there is a disproportionate impact on students of color. At the time of this study, more than 900 accredited, bachelor-degree institutions have publicly announced they will review admissions applications without the input of test scores as a factor (National Center for Fair and Open Testing, 2016). With nearly 25% of U.S. colleges shifting to test-optional policies, the trend is continuing momentum with 80 colleges joining the movement in the last ten years. Institutions have shifted to minimize the importance of standardized test scores in the admissions review “due to their ineffectiveness of predicting college success and inability to accurately assess the college readiness benchmarks for students of color” process (National Center for Fair and Open Testing, 2016, pp. 2). Given the evolving body of literature on the disparate impacts of standardized test scores, paralleled with the policy changes occurring at institutions across the country, a pre-assessment on how test scores would impact students of color at urban, public universities could have been conducted in advance of the policy change.

## Definition of Terms

This definition of terms section will provide clarity to the variables and terms in this study. The following definitions are essential and are outlined to ensure understanding throughout the study:

**Access.** Having gaps in college entry that separate low-income or minority students from others (National Association of System Heads and Success Initiative, 2012).

**Black.** A person having origins in any of the Black racial groups (UNO Institutional Effectiveness, 2018).

**Community Type.** Differentiates the difference between an urban core, a suburban area, and a rural community. The U.S. Census Bureau (2010) began using this term in 2003 consisting of the county or parishes associated with at least one core (an urbanized area or urban cluster) of at least 10,000 population, plus neighboring areas.

**Discrimination.** Differential treatment of a person or group.

**Disparate Impact.** Differences in outcome among a racial or ethnic group that may result from the application of neutral policies (Harvard University Civil Rights Project, 2000).

**Majority-Minority City.** Using the U.S. Census Bureau (2010) data, the cities with a majority population made up of traditionally underrepresented populations were identified to narrow the selection criteria for the site case study.

**Public Institution.** An academic organization whose operations are supported by public funds, or managed by publicly elected officials (NCES, 2019).

**Socioeconomic Status.** “One’s access to financial, social, cultural, and human capital resources. Traditionally, a student’s SES has included, as components, parental educational attainment, parental occupational status, and household or family income, with appropriate

adjustment for household or family composition. An expanded SES measure could include measures of additional household, neighborhood, and school resources” (National Center for Education Statistics, 2012, p.4).

**Standardized Test Scores.** ACT or SAT Test Scores.

**Strict Cut Standardized Test Scores.** The college entrance exams ACT and SAT are used as a measure of admissibility in the review process. While some policies consider ACT and SAT scores as part of the process, the term “strict cut” refers to the 100% heavy reliance on test scores. Students must meet the outlined minimum requirements for admissibility.

**Suburban.** A territory or neighborhood outside of a principal city (National Center for Education Statistics, 2018).

**Urban Core City.** Within a greater statistical area, the urban core refers to the metropolitan area inside of a region with a population greater than 250,000 (U.S. Census Bureau, 2010; National Center of Education Statistics 2018).

**Urban Public University.** According to the Coalition of Urban and Metropolitan Universities, an institution has a location in a major metropolitan (or core-based statistical) area with populations of more than 450,000 (CUMU, 2017).

**White.** A person having origins in any of the original peoples of Europe, the Middle East, or North Africa (UNO Institutional Research, 2018).

### **Synthesis**

Birnbaum (1988) described higher education institutions as often slow to adapt to change; however, a variety of critical educational issues are converging in the educational landscape that will require universities to react. At a crossroads of racial demographic shifts in communities of color, urban public universities will continue to be critical in providing educational services to

their local regions and the underrepresented that seek admission to them. Understanding the importance of the admissions process for students, it becomes imperative to examine how admissions policies may impact race and access, particularly under the context of shifting diversity demographics. Furthermore, having an understanding of the role of urban, public institutions helps better inform educational stakeholders in policy decisions related to access.

## **CHAPTER 2: Literature and Theoretical Framework**

The process of studying policy impact and disparate impact is complex. First, a literature review captures the context and details of this study to conceptualize the critical policies that have shaped, and prevented, access at urban, public institutions. Historically, the acknowledgement of access to higher education and race has been reflected in policies designed to address educational disparities. The review of the literature explores the developments in policy while also examining how admissions policies have traditionally addressed the use of race and standardized test scores in the access arena. Understanding the complexities, breadth, and depth of policy analysis, the framework is positioned to provide the lens to organize the details and context that impact racially equitable access in higher education.

While this literature review will examine the long-standing history of educational issues at a broad, macro level, the institutional policies that students face every day also promulgate educational inequality, both before and during the admissions process. This review of the literature has been subdivided into three major sections: access, urban public universities, admissions, and standardized test scores. Access provides context and into systemic structures that impact race and access. Next, a review of historical, critical policies that impact access is detailed, and the access section concludes with a more in-depth investigation at the intersection of urban, public universities and their mission-driven commitment to access. The review of literature in the admissions section explores the history of admissions and the evolution of standardized test scores in the admissions process and how they have impacted race-based admissions and Supreme Court cases.



### **Critical Policies on Access to Postsecondary Education**

Tyack and Cuban (1995) acknowledge that education policymaking does not always lead to sustainable progress. Throughout the history of the access and race struggle, there have been many notable federal court cases and institutional admissions policies that have shaped the political landscape. To conceptualize the long-standing, systematic struggle of racial equity in policy and access, a historical account of access and multicultural education in America is explored before analyzing critical policies impacting access. Finally, context is situated in the roles and missions of urban, public universities as accessible institutions in higher education.

### **Sociocultural Foundations of Access and Education**

Although not always maintained throughout the history of higher education, the philosophy of education for all is a widely accepted principle in modern-day education. With his Commission on Higher Education in 1947, President Truman made a bold statement that further exhibited and promoted access when he asserted that a college education is a right for everyone right (Berube, 1978). During the reconstruction era, the “Equal Protection Clause of the Fourteenth Amendment forbids a state school from treating students differently on the basis of race” (Calleros, 2006, p.151). In fact, “those who claim to have been denied admission to a college or university because of racial discrimination have argued a violation of the equal protection clause” (Nguyen, 2014, p. 97). Despite these monumental moves toward equity in education and race, there has been a consistent paradoxical conflict in the American ideal of equality in education and an ongoing struggle of access for all (Nguyen, 2014). While the nation holds high the belief that all citizens should have access to educational programs, this access has been uneven across lines of race and social class.

In 1997, President Bill Clinton created a task force to examine the status of race relations. The Commission described the existence of inequality nearly 225 years after the founding of the country by stating:

At the end of the 20th century, the color of one's skin still has a profound impact on the extent to which a person is fully included in American society and provided the equal opportunity promised to all Americans in our chartering documents. The color of one's skin continues to affect an individual's opportunity to receive a good education, acquire skills to get and maintain a good job, have access to adequate health care, and receive equal justice under the law" (President's Advisory Board, 1998, p.35).

Arensberg and Niehoff (1971) echo the sentiments of the president's task force by highlighting the inferior treatment of groups of people throughout history through the use of privilege in a system designed primarily based on the value systems of the majority. Systemic and institutional racism are terms used to describe how political, social, historical, economic, and cultural systems perpetuate racial discrimination; thus, causing disparities and gaps (Mickelson, 2003; Williams & Collins, 2004). There is an abundant body of literature discussing the existence of institutional racism and how it manifests in a variety of sectors to cause racial inequities (Mickelson, 2003). From racial gaps in health (Dressler, 1990; Charles, 2003; Cohen, 2011), unemployment (Wilson, 1987; Bound & Freeman, 1992; Fairlie & Sundstrom, 1997), loan distribution (Bradford, 1979; Quadagno, 1994), and housing (Abrams, 1957; Darden, 1987; Yinger, 1995), these systems interact together to cause cumulative effects on the disenfranchised and are often not visible to those who benefit from the privilege (Logan & Burdick-Will, 2017). In fact, scholars suggest that the current existence of racial disparities, in present-day education, is

evidence to criticize school systems for catalyzing systemic discriminatory practices (Farkas, 2003). In support of increasing access for students of color, Hurn (1993) noted that the benefit of addressing inequalities in higher education would benefit the overall U.S. economy by continuing to provide more opportunities to higher status occupations. Throughout history, critical policies have been implemented that have both promoted and prevented access to higher education.

### **Morrill Land Grant of 1862**

Prior to the passing of the Morrill Land Grant, the economy was based on an agricultural economy and higher education was explicitly and specifically limited to wealthy White males who pursued further learning in law, theology, medicine, or a more expansive liberal arts education (Eddy, 1956). As a result, higher education fundamentally started its roots as an exclusive entity designed specifically for a small group of people and not attainable for low to middle socioeconomic status, women, or people of color. Signed in 1862 by President Abraham Lincoln, the Morrill Land Grant significantly was an impactful policy that increased access to higher education (Goodchild & Wechsler, 1997). As a policy shaping access in higher education, the act “provided grants in the form of federal lands (30,000 acres) to each state for the establishment of a public institution” (National Research Council, 1995, p.9). During the 100th anniversary of the act, by providing a new paradigm for approaching public education, the Morrill Land Grant Act, at a minimum, set a broad understanding for how accessible education can impact the intellectual, economic, and social life of the public (Rudolph, 1962). Although the Emancipation Proclamation was issued six months following the effective date of the Morrill Land Grant (Maimon, 2018), students of color could not attend many of these institutions due to legalized segregation known as Jim Crow Law.

## **Jim Crow Laws**

In the years following the Morrill Land Grant Act of 1862, Jim Crow Laws were a collection of policies that intentionally legalized segregation and prevented Blacks from attending post-secondary institutions. Following the Emancipation Proclamation and the 13th amendment, which ended slavery and gave freedom to Black people, the local governments and states attempted to systematically maintain the class structure through policies that disenfranchised Black Americans (Yosso, Packard & Jerrold, 2002; Parker, Solorzano & Lynn, 2004). Disenfranchisement of Blacks included implementation of policies that limited access to higher education, transportation, public facilities, and even voting rights for people of color. Although free, many did not have access to equal rights, facilities, opportunities, or education during the Jim Crow era from the reconstruction period to 1968 (Packard & Jerrold, 2002).

## **Morrill Act of 1890**

Although the Morrill Land Grant Act of 1862 provided increased access to higher education, many Black students could not benefit from the policy since many states did not allow integration in public school. Nearly 28 years after the original Morrill Land Grant in 1862, the Morrill Land Grant Act of 1890 “required each state to show that race was not an admissions criterion or else designate a separate land-grant institution [specifically] for people of color” (Oregon State University, 2012, p.2). Rather than adopt new admissions policies, many states, like Pennsylvania, created entirely new institutions for students of color. As a result, most Historically Black Colleges and Universities (HBCUs) were founded following the American Civil War (Wegnlinsky, 1996). The Morrill Act of 1890 represents a policy on access in education because Blacks were historically denied entrance to “White” post-secondary institutions prior to its establishment (Kim, 2002). Although there were private HBCUs established before the Morrill

Land Grant Act of 1890, 19 new, public HBCUs received funds to build from the passage of the law and 18 land grant, historically Black colleges and universities currently exist to serve a diverse student body (Lee & Keys, 2013; Allen & Jewell, 2002; Provasnik et al., 2004). As a result, the act became an impactful policy in providing access to higher education during an era of segregation and limited access for people of color.

### **Servicemen Readjustment Act of 1944**

Also known as the G.I. Bill, the Servicemen Readjustment Act was a policy signed in 1944 by President Franklin Roosevelt (Mettler, 2002). The bill involved the creation of a program that ensured that veterans returning from the war continued with their education (Mettler, 2005). Furthermore, the G.I. Bill ensured that the scholarships offered by the government were financed without any federal involvement. Enacting this policy increased enrollments for institutions across the country. Although the Servicemen's Readjustment Act became the first "race-neutral" policy for tens of thousands of veterans in the United States to attend college (Turner & Bound, 2002, p. 5), the bill was not implemented equally across races at institutions; thus, reinforcing racial gaps and access at institutions (Katznel, 2005).

### **Affirmative Action of 1961**

In a significant policy step towards racial equality in higher education, President John F. Kennedy announced Affirmative Action at Howard University, a historically black college and university (Bowen & Bok, 1998). The term was developed in 1961 when the President ruled against discrimination in any shape or form (Bowen & Bok, 1998). Affirmative Action was designed "to achieve racial, social justice and based on the compelling justification of establishing equality to remedy the effects of past discrimination" (Renner & Moore, 2004, p .227). Over the past 30 years, the central purpose of race-conscious policies has been to increase diversity in spaces

where people of color are not equally represented; however, an underlying purpose has always been to combat systemic racism that promotes segregation. At the core of its intention, Affirmative Action is an instrument to reduce the effects of racism and systemic oppression impacting underrepresented populations. The impacts of Affirmative Action promoted equality in the admissions process for access into higher education for traditionally underrepresented students (Orfield, 2001). Despite these attempts at equality, opponents of Affirmative Action continue to critique the intention and impact of Affirmative Action while questioning its relevance. This critique was manifested in anti-Affirmative Action policies such as Proposition 209.

### **Civil Rights Act of 1964**

In a broad attempt to eliminate racial discrimination, the Civil Rights Act of 1964 is noted as one of the most impactful critical policies to address the legal, social, and political forces upholding segregation. As a continued demonstration of the struggle for equality, and the necessity for critical policies to strive for equal access in public education, the Civil Rights Act was signed by President Johnson in 1964, a full decade after *Brown v. Board of Education* (1954) was mandated to segregate schools. With 11 sections, and desegregation still apparent in the decade spanning 1954 and 1964, the Civil Rights Act is a comprehensive policy that specifically details desegregation from voting rights, public facilities (including movie theatres and transportation), public education and even equal employment (Civil Rights Act, 1964). The Civil Rights Act defines desegregation as “the assignment of students to public schools and within such schools without regard to race, color, religion, or national origin” (Civil Rights Act, 1964, p. 246).

### **Fair Housing Act of 1968**

When examining the impact of policies on access to higher education, of vital importance in understanding the systemic landscape and implications associated with homeownership and

access to quality education. Disparities by race, community type, and socioeconomic status have long been attributed to segregation in homeownership and wealth (Gotham, 2000). The noted disparities by educational attainment and community are less coincidental. As outputs of accumulated policies and segregation, many marginalized people have been systematically placed into urban geographic regions (Anas, 2004). As a critical underlying issue, homeownership also impacts access and education. A sizable amount of funding for public school systems is structured based on local property taxes within designated districts and zones (Eitzen, Baca Zinn, & Eitzen-Smith, 2013). Where a student lives, or is allowed to live, has a significant impact on where they attend school and opportunities for social mobility (Bonilla-Silva, 1996). Catalyzing systemic racism, several housing discrimination practices, such as redlining, occurred to prevent minorities from owning properties or moving into specific regions.

The Fair Housing Act of 1968 aimed to end these discriminatory practices that systematically disenfranchised families of color from access to homeownership loans. With no loans, communities of color lacked the economic tax base for a quality and equitable education (Grier & Grier, 1971). Subsequently, minorities remained segregated in communities with very few options for schooling beyond those located in their neighborhood. As a result, many there is still evidence of geographic and institutional segregation in many communities of color concentrated in urban areas and many White students in suburban regions (Renner & Moore, 2004). The Fair Housing Act of 1968 created an opportunity to correct discriminatory practices and creates pathways for home and business ownership (Gotham, 2000). The recent effects of redlining are immeasurable as the discriminatory practice interrupted and dismantled a transfer of wealth for generations (Bonilla-Silva, 1996). Given this historical context, the Fair Housing Act

of 1968 became a critical policy with disparate impacts that significantly impacted access to education.

### **Proposition 209 of 1997**

In the quest for equality in education, Affirmative Action provided many gains; however, nearly forty years later setbacks occurred in education to hinder progress. As a direct counter-response to Affirmative Action Proposition 209 was developed to stop implementation of the policy at public institutions in the state of California (Holzer & Neumark, 2006). It is important to note that affirmative action is aimed at combating continuing systemic racism (Jayakumar & Adamian, 2015); yet, Proposition 209 eliminated consideration of race in the admissions process and was followed by a drop in the number of underrepresented minorities gaining admission to and enrolling in the UC system (Pusser, 2001). California's Proposition 209 was not the first state-wide policy created to reverse the effects of Affirmative Action. Similar policies aimed at eliminating Affirmative Action have been implemented across various other states. The state of Washington banned Affirmative Action by enacting initiative 200 (Moses et al., 2009). In response, the state of Washington planned to increase outreach efforts to communities of color and underrepresented students (Blume 2010). Texas banned the use of race in admissions to ultimately end Affirmative Action in Texas in 1996 (Blume & Long, 2013). In 1999, the Florida Governor signed Executive order 99-281 to discontinue affirmative action specifically to "implement a policy prohibiting the use of racial gender set-asides, preferences or quotas in admission to all Florida institutions of Higher Education, effective immediately" (Bush, 1999, p. 2). Despite providing alternate plans to attract, recruit, and enroll students from minority communities, many states began to ban plans rooted in race-based admissions.



## **Synthesis of Critical Policies**

Although critical policies have been aimed at access since 1862, the policies did not always include access for Black people. Even in the post-reconstruction era, there is much criticism for the impacts access policies have had for minorities in achieving equal access to institutions. Since racial gaps currently exist in education, one can conclude that the access policies did not fully address the racial equity divide in education (Renner & Moore, 2004). Rather, additional research examines the systematic policies and structures that exist in education that promulgate racial inequities in post-secondary education. While increased enrollment is documented through the years following high impact access policies, the existence of systemic racism prevented people of color from accessing the same institutions as their white counterparts (Katznel, 2005). For example, even when students were applying their GI Bill benefits, veterans of color were often tracked into career-track programs and not accessing the same institutions as their white counterparts (Katznel, 2005).

Through the history of access and policy, there were active efforts aimed at removing race consideration in the admissions process. Following the ban on affirmative action programs, attention was placed on racial enrollments at public institutions in states where race was not considered in the admissions process. The outcomes of the bans led to clear declines in minority enrollment at public institutions where states placed bans on racial equity policy programs (Long, 2007). The Supreme Court ruled that an institution can consider the ethnicity and race of the students during admission as a factor for the purpose of diversity, provided that it is not used on the purpose of discrimination (Orfield, 2001). In addition to the Supreme Court cases on race-based admissions, policies such as Affirmative Action have also been central to the discussion on increasing access to underrepresented populations.

In evaluating the policy impact on achieving access for students of color there is still much work to be done as racial gaps continue to exist through the entire education spectrum (Gerald & Haycock, 2006). Students of color, particularly, Black and Latino, are only “half as likely as Whites to obtain a bachelor’s degree or higher” (Carneval et al., 2018, p.1). These gaps demonstrate a continued need to analyze and develop policies towards creating pathways for equitable access across all aspects of education.

### **Urbanization and the Role of the Urban Public University.**

It has traditionally been the mission of urban public universities to provide affordable and accessible education to residents in their community. Developing a list of urban, public universities is just as difficult as naming them as there is no comprehensive list or name or this unique classification of institutions (Zerquera, 2016). Over the years, urban publics have been identified as urban state universities (Grobman, 1988), to metropolitan universities (Coalition of Urban and Metropolitan Universities (2019), urban serving universities (Coalition of Urban Serving Universities, 2016), and urban-serving universities (Urban Serving Universities, 2012). At the core of each urban, public university is a shared mission that captures the common purpose and historical commitment to education urban communities for the public good. The Coalition of Urban Serving Universities (2016) defines urban universities by at least three criteria: 1) educating the urban workforce to serve the areas where they are located, 2) collaborating with local leaders to train human capital and engage communities, and 3) helps create area jobs and economic and social equity.

When discussing the role of urban, public universities, the importance of serving urban populations has been consistently noted in the literature when discussing the role of the urban, public intuitions. In his presentation of the top five priorities of urban, public institutions Berube

(1978) listed the number one priority as the admission to all high school grads of the city, a sentiment shared by many other scholars on the role of urban, public institutions including Brownell (1993) who surmises the mission of the metropolitan university is to serve the diverse needs of their urban regions.

Closely tied to the notion of urban education is the long-held American value of public education being accessible and affordable for the public good. Educational institutions serve as the primary catalyst for economic mobility. In the context of preparing all citizens to meet the educational needs to occupy jobs, “public higher education has a rich, proud tradition of serving as an engine of social mobility and generations of striving Americans have long aspired to attend its institutions” (Gerald & Haycock, 2006, p.3). Over the years, public universities have made their mission one of access. The unique missions on institutions must be preserved to sustain economic growth (American Council of Education, 2012). Scholars who study Human Capital Theory in education often refer to public education as an investment in the public good (Longanecker, 2005). Haskins (2008) notes that education plays an integral role in increasing economic development and growth in a competitive, global market (Longanecker, 2005). As such, having a college degree provides greater chances of citizens to achieve economic mobility (Baum & Ma, 2007; Reay, Crozier & Clayton, 2009; Zambrana & MacDonald, 2009). It is against that it becomes imperative to expand access to higher education for traditionally underrepresented students of color and families from low socioeconomic background to increase their odds for gaining access to more economic opportunities (Durkheim, 2001). Traditionally, public universities have served as the primary mechanism for connecting accessible and affordable opportunities post-secondary opportunities to the public.

## **Historical Roots of Urban Public Universities**

At the crossroads of urbanization and increased post-secondary enrollments, as a result of the GI Bill, many urban public universities emerged as accessible institutions to serve the shifting demographics (Cohen & Brawer, 2005; Harclerod & Ostar, 1987). In the spirit of access, urban publics at their establishment became the vehicle by which students could obtain a degree. As a fundamental value, urban public universities “situate access to higher education as part of the public good and connect that specifically to the mission of institutions that are charged with carrying this out more than others” (Zerquera, 2016, p.3). Seen as a public good, urban public universities provide affordable and accessible pathways to post-secondary education.

As part of their history, urban public institutions have always been designed to be part of their geographic system and demographically representative of their regions (Linton, 1990). In the 1960s, many protests erupted as a result of institutions increasing their admissions selectivity and diverting from their missions of serving their local population. At urban institutions, such as Brandeis, San Francisco State, and City College, the request for equality was felt by citizens in their region (Murphy, 1975). Urban residents advocated their right access to their urban, public institution, thus, dove-tailing the conclusions of Ruch and Tani (1991) who noted that “urban universities were designed to meet the particular needs of city residents” (p.19). The protests further represent the need for affordable access to postsecondary institutions while also underscoring the importance of the role urban, public institutions play in their communities. At a crossroads of the urbanization movement and racial demographic shifts, urban public universities became, and continue to be, critical in providing educational opportunities to their regions. Having an understanding of the role of urban institutions helps better inform this study to examine if their missions of access are being upheld through current admissions policies.

## **Evolution of Urban Public Universities**

Given their need in the community, urban public universities are charged with maintaining their mission and traditions while also balancing their need to adapt to a number of changes and external forces (Brownell, 1993). Often, these changes have challenged institutions to choose between remaining central to their mission or adapting to external forces to remain relevant and compete in an increasingly competitive market to shift priorities for institutions. External forces that range from increased competition for students, to decreases in public funding for higher education are constantly moving targets for institutions that impact their ability to serve students (Winston, 2000). With increased competition for students in the marketplace and the rising importance of reports, rankings, and accountability, institutions have taken many measures to compete for the best and brightest students. Among these changes have been institutional policies to increase admissions requirements as a method of improving retention and graduation rates (College Board, 2008; Espenshade & Chung, 2010; Kobrin, Patterson, Shaw, Mattern, & Bartbuti, 2008). Such a move has been implemented to provide stronger outcomes for stakeholders (including donors, rankings, and the attraction of more prospective students). Many higher education scholars have described all institutions, including urban, public universities as participating in an arms race and shifting from the notion of working toward the public good (Levidow, 2005). As a criticism, this shift has led to universities meeting outcomes that no longer reward outcomes centered on serving and supporting students who likely face more challenges to complete their degree. Chief among the criticisms is that urban, public universities offer more support for international students than students in their own city (Berube, 1978). The place of urban public universities in the ecosystem of post-secondary institutions is amplified at the

intersection of changing demographics and trends that show students who attend a four-year college are more likely to earn a bachelor's degree (Cabrera, La Nasa, & Burkam, 2001).

### **Urbanization and Urban Publics**

With urbanization becoming a growing movement, chief among the changes for urban institutions includes the shifting demographics in urban areas where they are designed to provide educational services. Similar to the changing demographics of the mid-twentieth century that established urban, public universities, the population is becoming increasingly diverse (Western Interstate Commission for Higher Education, 2000). Additionally, the US Census Bureau has acknowledged notable growth within the Black population (US Census Bureau, 2010). For the time 2013 to 2030, a decrease in the number of white public school graduates is estimated to decline by 14% (Western Interstate Commission for Higher Education, 2000). During this decline in white public school graduates, urban areas are expected to experience the greatest increases in population (Grawe, 2018). Within the urban areas, the Pew Research Center (2018) asserts that urban areas are becoming more racially diverse and the urban population of white residents continues to decline majority populated by white residents. As a result of the fair housing issues prior to 1968, many families of color were landlocked into urban areas (Logan & Zhang, 2010). These same urban communities are where the largest diversity growth is expected to increase (Anas, 2004).

According to the American Council (2015), 92% percent of America's population growth in the last decade occurred in communities of color, and by 2050 these communities will be in the majority. In the wake of changing demographics, public institutions have been met with an increased need for accountability, declining budgets while also balancing challenges to increase their institutional profile and compete in the shifting landscape (Frank, 2004). There are inherent

implications for urban public universities when policy shifts are made to steer away from their mission of serving their urban region.

According to the 2010 Census, approximately 80.7% of the United States population lives in urban areas with much of the recent growth happening in major cities. Although many urban regions also serve as population centers for people of color, the enrollment rates for these students compared to the counterparts still exhibit significant variance (Boschma & Brownstein, 2016). Consistently throughout history, one unique trait of urban universities is their expanded involvement with the surrounding region and community it serves (Perlman, 2006). This involvement single-handedly differentiated urban universities from their peers in other regions, especially during times of increased competition (Perlman, 2006).

### **Urban Public University Synthesis**

By emphasizing the population shifting demographics in urban areas, it is essential to understand the characteristics of students preparing to enter college (Grawe, 2018). Kirst and Venezia (2004) noted, “sufficiently ensuring the successful student transition requires a review of current structures and practices and the development of new systemic approaches” (p. 18). Particular emphasis is required from educators during the transition from high school to post-secondary education so that admissions policies can be more inclusive to serve historically marginalized backgrounds get to and through college.

### **Admissions and Standardized Test Scores**

“Among the most controversial policies in the quest for racial equity in higher education has been the use of race in admissions decisions,” and the controversial narrative has centered on race and standardized test scores over the last 60 years (ASHE, 2015, p.51). Since race and standardized test scores continue to be at the center of the struggle for access into institutions of

higher education, this section of the literature review will explore the evolution, and application, of standardized test scores in admissions policies.

### **Evolution of Standardized Test Scores**

The primary purpose of admissions standards is to evaluate an applicant's candidacy to successfully enter, and complete, an academic program of instruction (Quann, 1979). As a gateway to measure readiness, admissions standards have been implemented at colleges and universities for over a century as students apply to college (Rudolph, 1962). The process of students applying for admission to colleges and universities marks the initial transition from high school to college. Each year, college-bound hopefuls submit information on their academic strengths and other personal characteristics seeking admission. On average, nearly 1.7 million college-bound seniors took the SAT (College Board, 2015) and on average there are 2 million ACT test-takers each year (National ACT, 2016). When analyzing the connection between K-12 and higher education, a critical component to a student's transition to college is the admissions policies as they are designed to assess a student's readiness for college. The admissions assessment, which includes standardized testing, is a rite of passage that has broader implications on who goes to college, where students attend college or if they go to college at all. Linn (1993) described four stages of admissions philosophies as subjectivity, search for uniformity, objectivity (strict use of cut test scores), and holistic. Since 1926, standardized testing has been used in the college admissions process by a countless number of college-bound students.

**Stage 1: Subjectivity.** In the late 1800s, before standardized testing, each college conducted its own individual assessment method to evaluate a students' preparation level for the collegiate level of study (Cabera & Burkam, 2001). With fewer students applying to colleges and universities and most students only applying to one institution, the process was highly subjective.



During this time, each institution's President conducted the admissions review through a personal interview as the primary factor considered for eligibility for admission. This method of entrance review fit this time period as fewer people were attending college. It was also common for students to apply to one college at a time, which also contributed to the lower volume of applicants to review.

**Stage 2: Faculty as Admissions Committees.** Marking a shift from presidential review for admissions decisions, the task became common for faculty members to determine the admissibility of applicants to their academic disciplines. The benefit of this model included a major-specific review where faculty set their criteria according to their curriculum and pedagogical practices. Seen as a positive policy change, to allow university presidents to focus on other tasks, the caveat of this model was large enough to prompt a second change in admissions. With varying faculty across institutions, there lacked a sense of uniformity in admissions review processes. Without the use of a central admissions office moderating the review of applications, there was an apparent lack of consistency in how students were admitted or denied. Paralleled with faculty seeking tenure, and their own teaching loads, a paradigmatic shift occurred to create admissions offices to manage review admissions applications in a search for policies and procedures to regulate the way admissions applications are processed within post-secondary institutions. As a result, the use of standardized testing became an additional metric used throughout the admissions process.

**Stage 3: “Objectivity” through Standardized Test Scores.** As the number of students applying to college increased, and students began applying to more than one institution of higher learning, the use of standardized test scores allowed the admission review process to become more objective. In 1926, the Scholastic Aptitude Test (SAT) was developed for higher education

institutions, which had an interest in distinguishing high performing students who wanted to apply to multiple institutions. Due to drawn criticism that the SAT only served those students who were interested in the Ivy League schools of the East, in 1959, the American College Test (ACT) was implemented on a national level to assess other areas that the SAT did not evaluate. In fact, a critical, analytical review of each test's structure will reveal that the tests measure and evaluate two different things. Since the SAT was based on the IQ tests used by the army, the test was modeled to yield information regarding the students' intellectual capacity, understanding of the methodology, and critical thinking skills. Alternatively, the ACT is modeled to assess students' achievements, material learned, and understanding of the general high school curriculum. Overall, the uses of both tests have been applied for over 80 years in the college admissions process.

Though assessing separate qualities and different levels of academic abilities, each test reveals more information on the applicant for higher education institutions to consider when making admission decisions. Subsequently, admissions requirements can make a significant difference in retention and graduation rates. To improve their retention and graduation rates, institutions have strategically increased admissions standards to better predict the academic preparedness of students in first-year courses (Sedlacek, 2004). According to ACT (2013) data, if a student achieves a 22 on the math and an 18 English sub-score, there is a 75% or higher chance that the same student will receive a "C" or higher in their first-year math and English courses. Having access to the ACT College Readiness Benchmarks, many institutions use these metrics as strict cut scores for applicants who seek admission for convenience. Strict cut scores is a term used to define a firm threshold of metrics students must achieve in order to gain an offer of admission (Franks, Hiss, & Syverson, 2018). Many institutions have transitioned from quantitative metrics

of admissions review to the holistic approach of admissions standards; however, some urban public institutions still apply an objective, quantitative-based evaluation system of admitting students.

**Stage 4: Holistic Admissions.** The National Association for College Admission Counseling encouraged colleges to consider using other methods to evaluate a students' preparation level. The governing organization did not refer to the SAT or ACT directly, but their intentions were evident to encourage institutions to evaluate their use of standardized test scores (Pope, 2009). More specifically, admissions policies that use strict cutoff scores were criticized. The shift to holistic admissions maintains that test scores provide a snapshot into a student's academic abilities rather than a full, objective representation of a student's abilities. Meier (2002) supported psychologists who asserted that a standardized test score alone could not be assigned to understand the value of learning. In the spirit of access and equity, leading educators began to call for a paradigmatic shift towards holistic approaches to evaluating a student's level of academic preparedness (Olivia, 1997; Adelman, 1999b; Grose & Selingo, 2001). In response to this recommendation, standardized testing agencies argue that standardized test scores should be used simultaneously with the high school academic record while also reminding admission practitioners, students, and families that admission decisions are not made solely on the scores, but in conjunction with other factors to help predict outcomes (Mattern & Patterson, 2014). In fact, the four-year high school GPA has stronger correlations to predict collegiate academic success than the strict use of standardized test scores (Geiser & Santelices, 2007). With increasing evidence towards alternative methods of evaluating an applicant's readiness, including stronger use of GPA, many institutions have adopted holistic and alternative admissions policies. Such shifts in admissions policies have not spread to all institutions; yet, narratives continue to develop surrounding the critiques of standardized test scores.

## **Critiques of Standardized Test-Scores**

Over the last two decades, standardized testing has received mounting criticism with regard to their ability to predict academic success in college (Heubert & Hauser, 1999; Kohn, 2000; Brennan, 2004, Linn, 2004). Additionally, due to the racial and socioeconomic gaps in test score achievement by race, scholars have connected standardized testing as a barrier to higher education access (Atkinson, 2001; NACAC, 2008; NACAC, 2011). In the face of the emerging criticism, critics argue that standardized testing was not implemented to predict graduation or retention rates; yet, institutions and policymakers continue to draw correlations for admission policy development (Wyckoff, 1988; McNairy, 1996). In response to the developing criticism of standardized test scores, the National Research Council proclaimed, “colleges and universities should review their uses of test scores in the admissions process, and, if necessary, take steps to eliminate misuse of scores” (National Research Council, 1999, p.25). While standardized testing intended to simplify the college admissions process, many institutions began shifting away from the mandatory use of standardized test scores in the admissions decision process (Franks, Hiss, & Syverson, 2018). As a result, a new stage of admissions review developed known as test-optional admissions.

**Gaps by Socioeconomic Status.** Although the chief negative impact has focused on the bias test scores have on students of color, correlations also exist between socioeconomic status (SES) and score achievement (Fairtest, 2018). Traditionally, a student’s SES has included, as components, parental educational attainment, parental occupational status, and household or family income, with appropriate adjustment for household or family composition (IPEDS, 2018, p.25). Having access to more capital and resources allows students from higher-income brackets to access tools and opportunities to achieve higher scores. From having multiple opportunities to afford the retaking of the test, to increased access to pay for test preparation materials and even

the hiring of private ACT and SAT tutors, students from higher socioeconomic statuses have an inequitable opportunity to score higher on standardized tests (NACAC, 2011). There is documented evidence that accessing such tools has been shown to increase test scores for students (Deresiewicz, 2014). Briggs (2009) noted the direct correlation of test preparation and private test tutoring to high achievement on standardized tests. Consequently, students who do not have the financial capital lack the resources to afford access to increase their score. As such, this economic disadvantage creates, and widens, the disparity in test score achievement, access to higher education, and the overall educational attainment gap. Subsequently, over-reliance on test scores has a cascade effect on increasing chances for admission and offers for scholarship opportunities. These same opportunities are not always an option for students with fewer resources, or students from a low socioeconomic status. The notions of capital provide a compelling argument for educational leaders to make policy and practice changes in an effort to create more equitable test score opportunities for low socioeconomic students.

**Racial Bias.** Sedlacek (2004) maintains that universities may rely upon standardized tests where reliance on those tests has a disproportionately negative impact on applicants of color. Having an understanding of how tests have a disparate impact on students of color, they are still used as a primary method of evaluating admissions applications at some institutions. Although the use of standardized test scores provides an effective mechanism for institutions, Healy (1999) and Olivas (1997) raise concerns about the disparate impact on minority college students as a major obstacle of using standardized admissions tests. Having a firm understanding of the impacts of standardized tests and their ability to misrepresent students of color, the use of standardized test scores continues to be used as a central measure of college readiness at institutions. Used to

evaluate candidates for admissions, it has been suggested that test scores are used more as a barrier to access for students of color.

**Racial Bias and Test-Optional: A Case Study.** Having access to the impact of standardized test scores on race, Bates College, in Maine, began a seminal, experimental study to predict college success without the use of standardized test scores. Using test-optional admissions policies, the study concluded that a sound admissions decision could be made in the absence of standardized scores.

Through their test-optional policy, students could choose to report test scores (if applicable) or submit a writing sample for admission consideration. In addition to showing that standardized test scores do not correlate with undergraduate outcomes, the study also documented that women, students of color, and international students self-selected, at higher levels than their counterparts, to not send their scores under the test-optional policy. This further indicated that these groups of underrepresented students felt that the standardized test results did not accurately represent their ability. Subsequently, “virtually every college that has been test-optional for an extended period of time reported substantial growth in applications and matriculation among underrepresented students” (Syverson, 2007, p.64). In a study on test-optional admissions, Hiss and Franks (2014) revealed that 35% of Black students chose to be non-submitters compared to 18% of White students. The study also asserted that a student’s high school GPA is a stronger predictor for first-year student’s success than the actual standardized test scores (Hiss & Franks, 2014). Due to criticisms of standardized testing, paralleled with compelling evidence of GPA as a stronger predictor of collegiate academic success, NACAC maintains that colleges can make effective admissions decisions without standardized tests (NACAC, 2008). The results of test-optional students suggest that not only positive impacts can be gained without the submission of test scores,

but also it can be done in a way that removes barriers for students of color. Over 1,000 colleges and universities have adopted test-optional admissions policies (National Center for Fair and Open Testing, 2018). The list of test-optional institutions is diverse as they range from public, regional private, and for-profit institutions (Franks, Hiss, & Syverson, 2018). Additionally, George Washington University, a private, highly selective institution in Washington D.C., reported their most diverse class in the history of the institution after switching to a test-optional admissions policy (Anderson, 2016). These latest trends in the admissions policy demonstrate institutions' commitment to removing standardized test scores in an effort to remove barriers to access for students of color (Franks, Hiss, & Syverson, 2018).

The criticisms surround the negative impacts, misuse of scores, and racial bias developed. When race-conscious admissions practices allowed institutions to place less emphasis on test scores, campuses subsequently admitted larger numbers of historically underrepresented students into their institutions (Jencks & Phillips, 2011). Additionally, institutions that moved towards a test-optional admissions policy saw a 29% increase in applications which also included an increase in underrepresented students (Franks, Hiss, & Syverson, 2018). These trends demonstrate a paradigmatic shift towards standardized test scores, policy, and access. Such case studies provide examples of policy changes on standardized tests and how they impact specific sub-groups of students who may have traditionally been disproportionately impacted, and denied access to, post-secondary institutions.

### **Race-Based Admissions Court Cases**

The next section of this literature review examined the national policies that impacted access to institutions. In response to the policies, several race-based admissions court cases developed as public institutions and students attempted to navigate through the policy changes and

impacts. Chief among the policies to cause debate was the Affirmative Action policy and the use of race in the admissions review process.

The debate on the use of Affirmative Action and race in admissions has manifested throughout history from state court systems to the Supreme Court. Affirmative Action programs developed to assist applicants who are “disadvantaged by the effects of past discrimination” (Bakke v. California, 1978, p.111). Following this logic, institutions began developing admissions policies to increase access for traditionally underrepresented students. Creating new pathways in admissions created tension at selective institutions that can only admit a limited number of students. From California v. Bakke (1978), Hopwood v. Texas (1996), Grutter v. Bollinger (2003) and Fisher v. Texas (2013), each of these cases involved institutions adopting policies aimed at increasing diversity. The debate is enriched in heightened discussions and differing philosophies. Race-based admissions policies continue to impact how students access, or do not access, public institutions. It is critical to acknowledge the legal history of affirmative action in higher education against the background of standardized testing to understand the inconsistent access struggle that has existed over the last three decades. Policies rooted in admissions and access provide insight into the values and priorities of the American educational system. Unfortunately, the policies continue to find themselves on the frontlines of the Supreme Court.

**Brown v. Board of Education (1954).** Condemning legal segregation, the Board of Education (1954) court case asserted that separate but equal is not equal. This statement overruled Plessy v. Ferguson (1896), which allowed legal segregation at public institutions. As an access measure, students of color were not legally able to attend public post-secondary institutions with Whites. Chief Justice Earl Warren presented the importance of forced integration by championing the fundamental ideal that a person’s opportunity for equitable access to education has a significant



impact on their ability to succeed in life (*Brown v. Board of Education*, 1954). Chief Justice Warren set the tone for what would be a long-term struggle in race-based admissions policies and equitable access to education. Without this impactful court case, the door would not have been opened for dialogue to exist on future Supreme Court cases on race and admissions such as *Meredith v. The University of Mississippi* (1962).

***Meredith v. The University of Mississippi (1962)***. During the legal segregation era of Jim Crow, a Black student, James Meredith, applied for admission at the University of Mississippi. Meredith was denied admissions twice to the public university in the South (Donovan, 2002). During this time, the state of Mississippi's Higher Education Board implemented a minimum ACT requirement that was significantly higher than the Black student average score in Mississippi (Fair Test, 2018). The federal court cited the test score minimum policy as a barrier to equal admission opportunity for Meredith and required the University of Mississippi to offer admission (Fair Test, 2018). Meredith became the first Black student to enroll at the public university and graduated in 1964.

***Bakke v. Regents of the University of California (1978)***. To increase diversity under Affirmative Action, one institution developed a quota-based system to ensure diversity. Becoming one of the first Supreme Court Cases on race-based admissions, the policy drew much criticism when a non-minority student was not offered admission. The medical school denied Allan Bakke admissions despite having higher scores (MCAT and GPA) than minority applicants. Through the medical school's policy, at least 16 of the 100 available seats must be reserved for minorities entering the class. The case asserted, "the attainment of a diverse student body is constitutionally permissible goal for an institution of higher education;" however, policies are to consider race as part of the admissions review process without it becoming the actual process (*Bakke v. California*,

1978, p.111). The Supreme Court ruled that race can indeed be used as a factor in the admissions process, but cannot be used solely as a factor. As such, the use of quotas for diversity purposes was ruled to be a violation of the law.

**Hopwood v. Texas (1996).** Nearly 20 years after *Bakke v. California*, Cheryl Hopwood applied for admission to the University of Texas's School of Law, which lowered minimum admissions standards for specific minority groups. In a review of the institution's admissions and practices, it was discovered that Hopwood had a more competitive admissions application (LSAT and GPA) than 53 of the minority students who had been accepted. As a result, the ruling prevented the use of alternative admissions standards for minority groups in pursuit of accomplishing diversity goals (Long, 2015). In the spirit of achieving diversity at post-secondary institutions, the state of Texas responded to the Hopwood results by developing an admissions policy at public institutions. Texas implemented the Top Ten Percent program where the top 10% academically ranked students in high school are guaranteed admissions into public universities (Lamparello & Swann, 2013). The state of Texas examined the resegregated landscape of the Texas public school environment and discovered that "over half of Hispanic students and 40% of Black students attend a school with 90%-100% minority enrollment" (Cortez, 2010, p.364).

**Gratz v. Bollinger (2003).** Continuing the Supreme Court cases on race-based admissions policies, the University of Michigan's Undergraduate Admissions Office became the next case under Affirmative Action scrutiny for their use of an admissions policy. Contrary to quota systems and alternative admissions policies for minority students, *Gratz v. Bollinger (2003)* discussed a race-based admissions policy that utilized a point system. The policy for admission into the University of Michigan's College of Literature, Science, and Arts awarded an additional 20 points to students of underrepresented racial or ethnic groups (*Gratz v. Bollinger, 2003*). While "other

factors included the quality of an applicant's high school, the strength of an applicant's high school curriculum, an applicant's unusual circumstance and an applicant's geographical residence, and an applicant's alumni relationship" it was determined that Gratz was denied admissions due to the point system (Gratz v. Bollinger, 2003, p.254). The court struck down the policy for not being a truly holistic model of admissions. Despite this setback, "the supreme court affirmed that having a diverse student body is a compelling interest," but admissions policies must not use assigning points as a method (Nguyen, 2014, p.98). The decision, in this case, leaned on Bakke v. California (1978) for ruling in Gratz v. Bollinger (2003) by re-stating that the numerical approach to Affirmative Action in admissions is prohibited. Essentially, the University of Michigan's policy protected certain applicants from admissions competition based on the status of their race.

**Grutter v. Bollinger (2003).** The University of Michigan's School of Law used a rating system that placed applicants on a grid to effectively compare and evaluate; however, underrepresented students were placed on a different grid with separate metrics. As such, Barbara Grutter, who otherwise would have likely been granted admission, was denied due to the law school using race as a major factor in the admissions process. The courts supported the use of the grid admissions system for their practices aimed at increasing and fostering diversity for traditionally underrepresented groups. This case provided clarity on the legal uses of affirmative action in admissions while also continuing to limit the mechanisms that colleges and universities could use to provide advantages for traditionally underrepresented minority groups (Holzer & Neumark, 2006).

**Fisher v. The University of Texas at Austin (2013).** The most recent race-based admissions court case was held, yet again, from the state of Texas in 2013. After the Grutter ruling provided more clarity on affirmative action admissions policies, UT Austin returned to using

affirmative action in 2005 by using a two-step admissions process (Faulkner, 2005). The two-step process used the Texas Top Ten Percent plan as one step. Four years following the *Hopwood v. Texas* (1996) case the University of Texas implemented an admissions practice that guaranteed admission for students who fell in the top ten percent of their high school rank. Given the diversity of Texas high schools, the underlying principle was to increase diversity at public universities. The second step for admission to the University of Texas at Austin was holistic admissions for those students who did not meet the criteria for the Top Ten Percent (Nguyen, 2014). In 2013, Abigail Fisher was not in the top ten percent of her class and was denied admission to a Texas urban, public university in 2008 (*Fisher v. Texas*, 2013). The basis of Fisher's claim was that her equal protection rights were violated when Fisher was not offered admission to the University of Texas at Austin due to her race (Nguyen, 2014). The court reaffirmed if the goal of an admissions policy "acted in good faith" with the intent to increase the diversity on their campuses for educational purposes, then "considering racial minority status as a positive factor in a university's admissions process, is permissible" (*Fisher v. Texas*, 2013, p. 99).

## **Synthesis**

As a study that analyzes the relationship between admissions practices and race, it becomes critical to capture a firm understanding of previous rulings. This historical context will guide the next steps for removing barriers to access for students of color. The court cases also show the continuing lack of clarity on the legality of admissions policies while proving that others still exist that may currently have disproportionate impacts. With new developments in admissions-based policy both at the federal, state, and institutional levels, this study plans to advance the dialogue in this space by examining the relationship of admissions policies and access.

## **Theoretical Framework**

Miles and Huberman (1994) define a theoretical framework as a model that “explains, either, graphically, or in narrative form, the main things to be studied the key factors, concepts, or variables- and the presumed relationship among them” (p.18). When exploring how admissions standards impact access at urban public institutions, a critical conceptual framework must examine the political, sociological, and historical factors for purposes of understanding the research context. Given these contextual factors, a theory rooted in policy analysis, impacts, and outcomes supports organizing these factors at a macro level to better understand the details of the environment. Analyzing policy is a detailed process that is used across multiple academic disciplines and discourses (Heck, 2004). A policy-based theoretical framework “posits general causal relationships among variables” and “specifies the specific functional relationships among particular variables or indicators that are hypothesized to operate in some well-defined set of conditions” (McGinnis, 2011, p.170). Given the multi-level examination required of policies, this study will use the Disparate Impact Theory to examine how state-mandated admissions policies affect access at urban public institutions. Disparate Impact creates a framework for analyzing the policy development process.

### **Disparate Impact Theory**

Following the historical context of segregation, Jim Crow Laws, and *Brown v. the Board of Education* (1954), Disparate Impact Theory evolved as a means to identify and examine racial discrimination. Heubert and Hauser (1999) define disparate impact as a policy creating a significantly different outcome, or effect, for a protected class of students. Subsequently, the Disparate Impact Theory examines systemic practices, seniority systems or “policies that have a

disparate impact on a protected class” (Equal Employment Opportunity Commission v. Randstad, 2012, p. 440). Disparate Impact Theory provides an operational framework for exploring the outcomes of policies. The foundation of the Disparate Impact Theory began in the legal discipline with the passing of Title VI of the 1964 Civil Rights Act. Since its inception, the Disparate Impact Theory has been used as a foundation for human resources professionals to address and provide a process for identifying discrimination in the workplace (Albertson, 2013). Similarly, this analysis is aimed to examine the possible racial disparate impact of black students seeking admission to urban, public universities. In the context of public institutions, President Lyndon B. Johnson enforced disparate impact intentions by signing equal opportunity laws for recipients of federal funds to “protect applicants, students, and employees from disparate impact discrimination” (Peresie, 2009, p.3).

**Origins.** The evolution of disparate impact reached a crossroads in the 1970s with the seminal court case Griggs v. Duke Power Company (1971). In this case, the employer required employees to take a specific test in order to qualify for a promotion. As a result of a disparate impact evaluation, it was determined that the exam had a disparate impact on employees of color. The principles presented in this landmark case similarly parallel the unintended consequences of using a standardized test for admissions into urban public universities. In the context of education, “the defendant must show that the policy or procedure in question has a manifest relationship to the education in question” (Albertson, 2013, p. 1923).

**Policy Analysis and Disparate Impact.** The Disparate Impact Theory provides an equity checkpoint for policy scholars to examine if the imposed policy caused a disparate impact on a specific, marginalized population. Policies, in their inception, are commonly developed to address a current issue or prevent an unwanted, anticipated outcome (Heck, 2004). While policy

implementation is a systematic process designed to solve or ameliorate problems, there are often unintended effects of policy outcomes. Disparate Impact examines policies after their implementation to examine if the outcomes remove access and participation for a minority group. As a study that examines policy impact, Disparate Impact Theory will guide and inform this study to examine the admissions standards policies and equality outcomes associated with the implementation process.

For decades, scholars have studied policy and maintained that policies do create political, economic, and social inequalities (Bourdieu, 1974; Bernstein, 1977; Young, 1979; Bowles & Ginitis, 1979). At a granular level, Disparate Impact specifically examines “harder to reach embedded norms that require job and policy modifications” that exclude equal rights and access to a particular group (Stein & Waterston, 2006, p.860). Additionally, contrary to traditional approaches to policy analysis, Prunty (1985) encouraged policy scholars to apply a framework of ethics and social justice. He declared that an analysis of educational policy had overlooked the role of education that favors the privileged and elite. Using this critical, social justice lens, Disparate Impact Theory enables scholars to analyze problems in an effort to identify if inequalities exist as a result of policy implementation.

**Disparate Impact Application in Education.** While most disparate impact cases are deeply rooted in equal employment opportunity law, the Disparate Impact framework has also been used in both k-12 and higher education for policy analysis. The accounts of disparate impact cases range from high stakes testing (Mancuso, 2004), to inequality in district school funding (Ostrander, 2015), to teacher competency testing on minorities (Rebell, 1985). Disparate Impact cases in education became so controversial the US Department of Education established a specific unit of investigation in the Office of Civil Rights. The designated unit was tasked with analyzing

“disparate impact by looking for evidence of ‘different treatment’ for students of color” (Zehr, 2011, p. 13). As a result of rising disparate impact cases (University of California, 2008), it was established that all educationally disparate impact claims are investigated throughout the U.S Department of Education’s Office of Civil Rights to assess disparate impact claims.

In 2005, the National Merit Scholarship Program was the center of a Disparate Impact case due to the lack of diverse National Merit Finalists. In this case, the PSAT test scores identified top scholars in high schools across the country; however, in the years examined students of color represented 3.2% of the finalist pool. The findings caused much discussion on the disparate impact of strict cut scores. As a program that selects and acknowledges “academically talented students of the United States” the findings created dialogue around how merit is defined and the best tools to evaluate merit (National Merit Scholarship Corporation, 2018).

The conclusion of the investigation ended with a strong recommendation against using strict test scores in the evaluation of admissions and scholarship programs at the University of California system. Similar cases in higher education and admissions have employed the Disparate Impact Theory to examine policy practices and impact on race including Disparate Impact cases on legacy admissions policies at Harvard (Ladewski, 2015), the disparate impact of standardized test scores in admissions (Kidder & Rosner, 2002), and disparate impact of admissions policies at the University of California at Berkeley Law school (Preston, 1997). Each of these cases examined a particular policy and the outcomes associated with access in higher education using the Disparate Impact Theory. As such, the Disparate Impact Theory will guide and inform this study to examine the development of admissions standards policies and the access outcomes of admission at urban, public universities.



**Applications of Disparate Impact.** Disparate Impact Theory provides a lens to examine the impact and relationship of policy impacts using a causal-comparative design. The US Department of Justice (2018) explicitly outlines the first three steps in establishing disparate impact investigations: The first step is to identify a specific practice or policy, the second step is to establish adverse effect, and the third requires investigating the disparity using comparative techniques such as the established four-fifths rule.

The first step requires challenging a specific practice or policy that may create a disproportionate impact on minorities (Ricci v. DeStefano, 2009). Rather than focus on the intentions of a policy, disparate impact analysis' focuses on the consequences of policies and practices (Lau v. Nichols, 1974). The intended effects of a policy refers to the extent to which policies reach their intended goals and targets. In contrast, "unintended effects are not related to the goals of the policy but, rather, appear as by-products of the policy's implementation" (Heck, 2004, p.12). Overall, disparate impact investigations aim to discourage unintended effects on underrepresented groups as a result of a particular policy outcome.

The second step involves establishing adversity or investigating if a member of a protected class has been excluded from access to benefits as a result of the policy (Department of Justice, 2018). Standing on the Civil Rights Act of 1964 which states "no person shall on the ground of race, color, or national origin be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance" (US Department of Justice, 2018, p.1). In the historical context of racially segregated schools, the adverse impact also applies to a protected class receiving fewer benefits.

Once the policy is determined, and the protected class and benefit is identified, the third step requires establishing disparity. If a disproportionate share of disparity is based on race, color,

or national origin then a disparate impact exists (US Department of Justice, 2018). Disparate Impact Theory provides the steps to operationalize a policy analysis by placing the contextual factors of policy and race into statistical tools to effectively analyze policy outcomes. The third step involves statistical analysis to determine to what extent a policy may have had an effect. The third step involves establishing disparity using algorithmic methods. This third step is the most complex as there is no official test endorsed consistently by disparate impact (West-Faulcon, 2009). The most common method used is the four-fifths test, also known as the 80% or less selection rule (Paetzold, Willborn, & Baldus, 2006). Under this four-fifths rule, a disparity exists if one group's acceptance rate is less than four-fifths, or 80%, of another group's rate (York, 2002). While the four-fifths test has been adopted by the Department of Justice, the Equal Employment Opportunity Commission and the US Department of Labor, the computational method selection to examine disparate impact widely varies across disciplines. The ambiguity in approaches to establishing disparity draws the primary criticism of the Disparate Impact theory.

**Critiques of the Theory.** The major criticism against Disparate Impact involves the lack of one consistent test for investigating cases (US Department of Education, 2000). Given the lack of statistical significance established through this test, many court cases have opted to also include a statistical analysis or even solely apply a quantitative methodology to analyze significance levels (Peresie, 2009); however, there are still a variety of statistical tests used. Disparate Impact Theory uses statistical significance tests in “various technical forms that include multiple regressions, t-tests, Z-tests, the chi-square test, and the Fisher exact test, but they all calculate the probability that the observed disparity is due to chance” (Peresie, 2009, p. 785). In concert with this inconsistency, the US Department of Justice (2018) encourages disparate impact claims to “tailor their methodology to the circumstances in each case in order to ensure an accurate measurement” (p.19).

Given the individuality in subjects, measures, selections, the investigator has several options and choices when selecting a test to investigate disparate impact.

A second major criticism of Disparate Impact is the framework lacks in providing a comprehensive analysis. While the theory provides a method for investigating disproportionate impacts through policy, critics assert that analysts often fail to provide solutions to impact effective change in the policy toward more equitable and desired outcomes (Wax, 2012). At the crux of this argument against Disparate Impact is to acknowledge that disparate impact often attempts to remedy a variety of social ailments ranging from race, class, gender, and the intersections in between. Since “schools exist in many political, economic, and social relationships, they are particularly difficult organizations to transform in a systematic way” (Heck, 2004, p.165). Given the complexity of identity intersections and school reform, the theory stops at the point of establishing harm by a policy. Critics argue that the Disparate Impact Theory fails to lean in far enough to investigate alternative, equitable policy alternatives. Selmi (2006) cited *Washington v. Davis* (1976) disparate impact case for failing to produce “meaningful reform” after determining a disparate impact (p. 705). Selmi (2006) claims that even with a change in policy, the disparate impact continued to occur.

### **Theoretical Framework Synthesis**

In summary, the Disparate Impact framework breaks down the many parts of policy analysis into specific steps to determine if the disparate impact has occurred. The policy analysis process under Disparate Impact requires looking at the outcomes associated with the policy and practices surrounding access. Given the large-scale, complex approach to analyzing policy, the Disparate Impact Theory provides criteria on operationalizing a thorough analysis by examining each part of the policy process and connecting it to the broader educational issues.

To better understand the issue of access and race, the literature review explored an analysis of access policies. Although additional research is required to better understand the complex and evolving roles of urban, public universities, it is critical that policy changes around standardized test scores must be put in place to prepare for the shifting demographics of students applying to college.

### **Chapter 3: Methodological Approaches**

This disparate impact study examined the relationship between a student's race and community type and their ability to access admission at their urban, public university. More specifically, the purpose of this study was to determine if a disparity exists through the use of standardized test scores. The research methodology, research design, and research questions are discussed in this chapter.

The questions guiding this study were:

*Question 1:* How did admission rates change, if at all, from before to after the change in admission test requirements for selected subgroups of students at an urban, public university?

*Question 2:* For the time period after the change in admission test requirements, do the variables of race and community type predict the likelihood of admission at an urban, public university?

#### **Research Design**

A conventional method of exploring disparate impact involves a quantitative, statistical analysis. A quantitative approach to research tests objective theories by examining the relationships among variables (Creswell, 2015). As a theory, Disparate Impact provided the quantitative steps to examine policy impact and if relationships exist between the variables of race alongside community type and admission rate. The theory uses predetermined characteristics to examine if a particular group of students has a significant, disparate benefit of access to urban public institutions (Paetzold, Willborn, & Baldus, 2006). More specifically, in education, disparate impact cases are quantitatively examined by the U.S Department of Education's Office of Civil Rights (University of California, 2008). The primary goal of this study was to examine if the policy

of increasing standardized test scores, required for admission, changed the outcome of who was admitted and who was denied entrance at an urban, public institution.

Case study research is a systematic method of inquiry to explore a bounded phenomenon within a specific context (Yin, 1984; Bromley, 1990; Walsh et. al., 2000). Bounded by place, time, and group, case studies are used to study a particular problem, event, or process (Runyan, 1982). Case studies are developed as research tools to improve policy outcomes and guide decision-makers on possible solutions (Scholz & Tietje, 2002). An embedded single case study design guides this study to one university and allows for the use of quantitative methods for investigation (Yin, 1994; Bortz & Doring; 1995). According to Yin (2009), there is a primary criterion to meet before establishing a case study. The research questions must investigate how or why (Yin, 2009). As an exploration of race and access, this study is an exploratory case study to examine how the variables of race and community impact access at an urban public university (Yin, 2003).

### **Quantitative Case Study**

While qualitative studies focus on the experiences of subjects and their perspectives on a particular process (Scholz & Tietje, 2002), quantitative case studies provide meaningful, more objective data to explore admissions and race. Through this design, quantitative case studies take into consideration the unique variables involved in the context of the setting being examined. Disparate Impact Theory provides the perspectives and practical tools to examine the potential outcomes of increased admissions standards on race at urban public institutions.

This critical study aimed to conceptualize the outcomes of a particular policy by race and community type. Critical approaches to policy analysis use quantitative data to highlight inequities that specifically affect students of color (Prunty, 1985; Musick, 1998; Woodside-Jiron, 2003). More specifically, Disparate Impact Theory describes a linear process for facilitating policy

analysis. In any given policy development and implementation, there are a variety of contextual factors to consider and evaluate in the decision-making process. In the case of admissions standards, one must have an understanding of who makes the decisions, how college readiness benchmarks are determined, and paralleled community demographics. A quantitative case study organizes variables in a setting and connects them in a way that enables the Disparate Impact Theory to answer the research questions of this study.

### **Selection Criteria: Bounded by Geographic Region, Time, and Population**

Case studies are bound by a specific geographic region, group, or time period (Yin, 1984). This particular quantitative study is bound by all three criteria to capture the specific details and examine the relationship between a particular urban region, within a specific ten-year time frame at an urban, public university.

**Bounded by geographic region.** Yin (1984) asserts that case studies explore “the outcomes of public policy can be predicted to some extent by careful examination of the cultural system in which they are made” (Garms, Guthrie, & Pierce, 1978, p.12). To identify the cultural system, or setting for this study, the selection process required identifying an urban area, with a university that applies standardized testing as part of its admissions policy. The U.S. Census Bureau (2010), defines an urban city as a central city with a Core Based Statistical Area population over 500,000. As a study on race and impact, the selection criteria focused closer on cities with considerably larger Black populations. To narrow the setting further and ensure a large enough data set of diverse residents, a city with a majority-minority demographic was selected for this study, see Table 1 (US Census Bureau, 2010). Based on three contextual factors, centered on race, access, and admissions policies, New Orleans, Louisiana provides a robust setting for this study.

Table 1. Urban Core Cities with Majority-Minority Populations and their Public Universities

Size Rank	City	State	% of Black	% of White	Urban Public
23	Detroit	MI	84.3%	10.6%	Wayne State University
25	Memphis	TN	64.1%	29.4%	University of Memphis
30	Baltimore	MD	63%	29%	Coppin State University, Morgan State University, University of Baltimore, University of Maryland Baltimore County
38	Atlanta	GA	51.4%	41.3%	Georgia State University, Georgia Tech
49	New Orleans	LA	60.2%	33%	Southern University of New Orleans, University of New Orleans

**Geographic demographics.** First, New Orleans is a majority-minority city. Based on the current top 50 urban areas, Atlanta, Baltimore, Detroit, Memphis, and New Orleans fit the criteria. Within these cities, each of these areas has at least one urban public university: Atlanta (Georgia State University and Georgia Tech), Memphis (University of Memphis), New Orleans (University of New Orleans and Southern University of New Orleans), and Baltimore (Coppin State University, University of Maryland Baltimore City, Morgan State University, and the University of Baltimore). During the last ten years, at least one of these cities, New Orleans in Louisiana, has experienced an admissions policy change at their urban, public university.

**Geographic context in access.** The Race and Equity Center (2018) conducted a study to examine the percentage of Black students served by public universities. Although Louisiana has the second-highest percentage of Black residents, Louisiana received the lowest rating for equity



and access at Louisiana public universities (Race and Equity Center, 2018). The Race and Equity Center's (2018) study used four individual criteria to evaluate equity and access including how much the public university is demographically representative of the state. The other criteria in this equity study examined: 1) gender equity 2) the completion rates for black students compared to the overall six-year graduation rates, and 3) the black student-to black faculty ratio where Louisiana was among the lowest for completion rate and representation but average in gender equity and completion rate (Race and Equity Center, 2018). In a similar equity study, Louisiana was below average in closing the degree attainment gap between traditionally underrepresented minorities and White students over the last two decades (Education Trust, 2018).

In a parallel study that examined student access to a Louisiana state-based scholarship program, the Taylor Opportunity Program (TOPS), researchers at Tulane University explored how raising minimum ACT requirements would impact the demographics of who receives merit funding. The potential impact analysis concluded that an increase of "the ACT requirement by just one point would significantly reduce the number of students eligible for the TOPS Opportunity Award" (Cowen Institute, 2016, p. 2). Twenty-three percent fewer New Orleans students and 36% of African-American Students would lose eligibility compared to the 25% of Caucasian students (Cowen Institute, 2016). The impact analysis examined race (Black and White), and location (New Orleans) finding that Black students in New Orleans would be the most negatively impacted group of students with the increased standardized test scores (Cowen Institute, 2016).

*Geographic context and admissions policy.* Finally, within the last ten years, the University of New Orleans (UNO) and Southern University of New Orleans (SUNO) are both urban, public universities that have specifically implemented an admissions policy change. Their strict cut score increase in admissions standards, combined with the racial demographics of the

city, made New Orleans the ideal research setting to examine disparate impact. SUNO is an urban, public university, but it is also a Historically Black College and University which would fall outside of the scope of a disparate impact study on race and access. This recent change in standards at UNO to increase strict cut standardized test scores provided the sample size, demographics, diversity, and policy required for a pre and post-test of admissions standards impact.

In a review of state college graduation rates, the state of Louisiana ranked 45 out of the 50 states for degree completers (University of Louisiana System, 2007). As a result, The University of Louisiana System created a task force to review their practices to improve retention and graduation rates which included reviewing admissions policies and entrance requirements to institutions (University of Louisiana System, 2007).

The Board of Regents governs and sets policies for a multi-campus university system dedicated to serving the public higher education needs of Louisiana. The disparities in representation within the public policy-making body when compared to the K-12 public student body provides a strong context to study race and access in higher education. In 2012, the Louisiana Board of Regents increased admissions standards at four-year universities, which included an increase in standardized test scores at public institutions. Through the Louisiana Grad Act, the Louisiana Board of Regents increased in minimum standardized test scores for public universities (Board of Regents, 2010). The purpose of the Louisiana Grad act was to implement policies “to achieve cohort graduation rate and graduation productivity goals that are consistent with institutional peers” (Board of Regents, 2010, p. 2). The logic to increase admissions standards at public universities was implemented to only accept students who met college readiness benchmarks outlined by standardized tests such as the ACT and SAT. Using recommended

benchmarks for readiness and retention purposes, the Louisiana Board of Regents increased the minimum, strict cut scores to improve university retention and graduation rates.

At the institutional level, UNO was facing leadership changes while striving to increase enrollment. In 2005 following the aftermath of Hurricane Katrina, institutions of higher education in New Orleans significantly impacted. With the majority of the local student populations coming from the local community, a loss in citywide population was reflected on their campuses. More than one million people were displaced in the gulf region after Hurricane Katrina (Plyer, 2014). Specifically, the city of New Orleans lost over fifty percent of the population. Prior to Hurricane Katrina in 2005, UNO had a student enrollment upwards of 17,000 students (Resilient NOLA, 2020). With an influx of state and student tuition dollars, UNO was able to thrive under those circumstances prior to the admissions policy change. Beginning in late 2005, Louisiana saw a decline in the amount of federal and state money allocated to higher education institution (Thompson, 2015). As such, UNO was in a position to explore alternative means to generate revenue. Increased tuition rates, program closures, and faculty/staff layoffs have carried the most weight when attempting to balance the budget (Thompson, 2016). The admissions and recruitment of students has become a critical initiative of the urban, public institution. Due to a shrinking high school population and the inability to teach remedial education courses, UNO's enrollment numbers have declined in the years prior to the admissions policy change (Chronicle of Higher Education, 2011). Bounded by this geographic context, UNO provides a viable selection site for this case study. During the time of the admissions policy change, this urban, public institution was in a position to increase enrollment numbers and become more accessible to students.

**Bounded by time.** The ACT college readiness benchmarks became the institutional admissions policy for the public, state-wide universities in Louisiana by 2012 and ultimately required all developmental courses removed from four-year institutions (Louisiana Grad Act, 2010). During this time, Louisiana was one of four states where less than 30% of the test-takers met three or four college readiness benchmarks compared to 29 states where at least 40% of high school graduates met the same benchmarks (National ACT, 2011). The standardized test scores for benchmarks and admissions requirements illustrate access misalignment with test-takers in Louisiana.

In regards to access, the increase to a 19 in Math ACT occurred in 2012 when the state averaged a 19.9 math score for public school students compared to the national average of 21.1, see Table 2 (ACT, 2012). The increase to an 18 English sub-score occurred that same year Louisiana public school students scored an average of 20.4, which is slightly below the national average of 20.5 (National ACT, 2012).

	UNO 2012 Admissions Requirement	2012 Louisiana State Average	National Average
English Sub-Score	18.0	20.4	20.5
Math Sub-Score	19.0	19.9	21.1
Composite	23 (only required if student has a lower GPA than a 2.5)	20.3	21.1

Concerning race in Louisiana, in 2012, 41% of black students scored an 18 or higher on the ACT compared to 74% of White students (Louisiana Department of Education, 2017). Over the next five years, the ACT scores for all students increased; however, notable gaps by race

remained. By 2017, 45% of Black students scored above an 18 on the ACT compared to 79% of White students. The use of increased, strict test scores created a unique context to explore the changing policies and the possible impacts that may have occurred for students seeking admission into Louisiana's public institutions.

**Bounded by group.** The state of Louisiana has many urban regions, with the largest urban area that meets the population criteria being New Orleans. The University of New Orleans (UNO) is a four-year, urban public university and one of nine University of Louisiana system schools. The Louisiana Board of Regents has oversight over all Louisiana state-wide systems, including the University of New Orleans (UNO Organizational Structures, 2014). This study was most interested in examining relationships of high school graduates in New Orleans (or Orleans Parish) and their ability to gain access to their urban public university, the University of New Orleans. Urban research universities have a “distinct mission that emphasizes not just the location within the urban context, but being composed of the city they inhabit” (Zerquera, 2016, p.3). Given the racial demographic differences between the principal city of Orleans parish and the surrounding areas of Jefferson, Plaquemines, and St. Bernard Parish, this study focused on access for Orleans Parish students. For the purposes of this study, “Orleans Parish is the city of New Orleans. New Orleans and Orleans Parish are interchangeable. Their boundaries are the same, and they contain the same population” (Data Center, 2018, pp.4). The following chart illustrates the demographic breakdown of the University of New Orleans, the population in New Orleans and the population of suburbs, including high school students in the region, see Table 3.

Table 3. Demographic Compositions in the Case Study Setting

Community	Community Type	White	Black	Source
University of New Orleans	Urban	56%	14%	UNO Institutional Research, 2018
Orleans Parish	Urban	33%	60%	U.S. Census Bureau, 2019
Jefferson Parish	Suburban	53%	26%	Data Center, 2018
Plaquemines Parish	Suburban	64%	21%	Data Center, 2018
St. Bernard Parish	Suburban	63%	23%	Data Center, 2018
Louisiana	State	32%	32.6%	U.S. Census Bureau, 2019

According to the Louisiana Board of Education (2015), 87% of students in public schools in New Orleans are Black; yet, according to the University of New Orleans (2018), Black students only make up 14% of their student population whereas 56% of the student body is made up of their White counterparts. UNO (Mission Statement, 2018) “serves national and international students and enhances the quality of life in New Orleans, the state, the nation, and the world by participating in a broad array of research, service learning, cultural and academic activities” (pp.1). This study examined the urban institution’s ability to serve its local region.

With scores below the state and national average, Orleans parish school students scored an average of 19.8 and 19.2 on the English and Math scores respectively in 2012 (Louisiana Board of Education, 2017). This contrast shows a large gap between New Orleans test takers and the 2012 admission rate. In 2012, the admissions standards increased at the University of New Orleans whereby students are required to meet a minimum sub-score of 19 in math and a minimum sub-score of 18 in English as a mandatory part of admissions requirements (University of Louisiana System, 2012). At the core of urban public universities is providing access to traditionally underrepresented students in their regions (Zerquera, 2016). The UNO mission statement affirms,

“The University of New Orleans is a comprehensive urban research university committed to providing educational excellence to a diverse undergraduate and graduate student body” (UNO, 2017). With diversity at the core of the mission statement, the institution has many opportunities to increase the demographic makeup of the student body to reflect the city of New Orleans. Bounded by this geographic region, timeframe, and context, this quantitative case study used the Disparate Impact Theory to explore the relationship of access and admissions standards at the urban, public university in New Orleans.

### **Data Collection**

The passing of open data laws allows for accountability and transparency in public government (Fenster, 2006) and makes the data collection for public universities available to researchers. The Public Affairs Research Council for Louisiana (2003) maintains that “Louisiana's Sunshine Laws aim to ensure government transparency and access to public information” (pp.1). The setting of this study was at a public university in New Orleans where data at public universities are accessible. Archival, student-level data was requested from the Institutional Effectiveness Office at the University of New Orleans for this longitudinal study. Through this office, public data was collected at three points in the admissions process: the application stage, the admissions decision stage, and the enrollment decision. Raw, disaggregated data for each student was collected. The number of students who did not apply, did not complete, or withdrew their application prior to receiving a decision was not collected.

### **Variable Selection**

Critical to this study is the selection of variables for the analysis of race and access at an urban, public university. Variables are a “characteristic or attribute of an individual or an organization that researchers can observe and varies among individuals or organizations studied”

(Creswell, 2005, p.118). At the data collection stage, dependent, independent, and background variables are defined and used for the purposes of this study.

### **Dependent and Independent Variables**

Researchers use independent variables to describe or predict relationships associated with dependent variables (Fink, 2006). The independent variables for this study are race and community type. These two student characteristic variables are selected to understand if, and how, race may impact the variable of admissions outcome at an urban, public university. These variables allowed this study to “test whether an observed relationship between the dependent and independent variables may be explained by the presence of another variable” (Auriat & Siniscalco, 2005, p.7). The independent variables are race (Black students and White students) and community type (Orleans or not Orleans) were statistical analysis examined if significance existed among any of the variables in relation to admissions outcome. Other independent variables included the socioeconomic status of a student, which was determined by their eligibility for the Pell Grant. Since the outcome is admission to the institution, the dependent variable is defined as admissions outcome or whether a student is offered direct admissions to enroll.

### **Background Variables**

In educational disparate impact cases, the Office of Civil Rights requests individual-level data from the institution on applicants, admits, and enrolled for more than one admissions cycle (University of California, 2008). Following this precedent on disparate impact in education, publicly accessible data on applicants and admits for multiple admissions cycles, by admissions year, and admissions term were collected for this study. With a policy change occurring in 2012 (Louisiana Board of Regents, 2012), one year prior to the change and one year following the change was analyzed. More specifically the independent, dependent and defining variables were



requested from the University of New Orleans for the period between 2011 and 2012 (UNO Institutional Effectiveness, 2018). This period allowed for the analysis of one year of data before the admissions policy change and one year after the policy change for a comparative data analysis.

Table 4. UNO Institutional Effectiveness Variable Definitions

Variable	Institutional Definitions	Values	Variable Type
Admission	The eligibility status for a student to begin classes	Admitted/ Not admitted	Dependent
Admission Year	As a study that explores admission rate before the change in test score and after, capturing the year students applied is critical.	2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018	Independent
Applicants	An individual who has fulfilled the institution's requirements to be considered for admission (including payment or waiving the application fee).	Applied/ Not applied	Background
Gender	Indicates whether a student self-reports their sex or gender as a male (man) or female (woman)	Man/ Woman	Independent
High School	Refers to the geographic setting of the student's high school. As a study that focuses on urban, public universities and their commitment to serving their region, capturing location is instrumental. This variable will be used to determine community type.	Orleans Parish, Not Orleans Parish	Independent
Race	A category used to describe groups to which individuals belong, identify with, or belong in the eyes of the community. The categories do not denote scientific definitions of anthropological origins. A person may be counted in only one group (NCES, 2018).	Black or African American, White	Independent
Socio-economic Status	Pell provides grant assistance to eligible undergraduate postsecondary students with demonstrated financial need to help meet education expenses.	Pell-Eligible, Not Pell-Eligible	Independent

## **Summary of Procedures**

The setting of the study was the University of New Orleans. Data were obtained as a result of open data laws. Archival, student-level data were requested from the Office of Institutional Effectiveness and Research at the University of New Orleans. The data set was imported from a Microsoft Excel sheet to SPSS for analysis.

The original research design called for data five years prior to the policy change in 2012 and five years after 2012. The first intended five-year cohort was to represent the years of 2007-2011. The second cohort represented the years 2012 to 2016, or those students who applied under the new, increased admissions standards. Due to data limitations, the Office of Institutional Effectiveness and Research was unable to provide the original data set to provide two five-year cohorts. Instead, the institution provided admissions data for applicants, admits, and enrolled from 2011 to 2018.

### **Data Sorting and Coding**

The data set was provided for the 27,017 students who applied and did not withdraw their application and captured the variables of race, community, gender, and Pell eligibility for the years 2011 through 2018. The admission data for Asian, Hispanic, International, Native American, Pacific Islander/Hawaiian, and Two or More Races, are outside of the scope of this study and were removed from the data set. Accounting for the removal, 16,174 students were left in the sample size.

Finally, this study examined community type according to the location of the student's high school, rather than their residence. The data was provided with this categorical variable based on the location of the student's graduating high school. The National Center for Educational Statistics (2018) geographically places the actual addresses of high school on a twelve-category

spectrum based on residence. The spectrum ranges from rural to urban. The community type was established by the zip code of the student's high school. Those high schools in New Orleans fit the criteria for Orleans Community.

### **Data Analysis**

The primary goal of this research was to examine how admissions test scores changed the outcome of who (by race and community type) was admitted or denied at the University of New Orleans. Under Disparate Impact, statistical significance occurs if “we can be confident at a specified level, generally, ninety-five percent, that the observed disparity is not due to random chance” (Peresie, 2009, p. 774). At a more rigorous level than the 95%, this quantitative case study used two statistical tools, at the 99% percent level, to seek answers to two questions on the use of strict standardized test scores during an admissions policy change in 2012. At this level, this study asserts with 99% confidence that significance was found, or not found, in error.

By conducting an analysis of the existing data before and after the increased admissions standards in 2012, this study assessed whether a disparate impact existed prior to, and after, this change in policy. The points of examination used the admissions activity in 2011 and compared it to the admissions activity in 2012.

### **Chi-Square**

Using the Civil Rights Act of 1964, Disparate Impact analysis involves establishing the exclusion of a benefit or limited access to a right as a result of one's race (Department of Justice, 2018). Consistently through Disparate Impact cases, courts have made two-tailed tests, such as chi-square, a requirement for establishing disparity (Harper, 1981). It is against this background that a series of chi-square tests were used to establish a contextual understanding of race and admissions rates at an urban, public university. The first research question asked, *how did*

admission rates change, if at all, from before to after the change in admission test requirements for selected subgroups of students at an urban, public university. Four chi-square tests were employed. The null hypothesis states there is no statistically significant difference between the student subgroups (race and community type) as a result of the change in admission rates. The chi-square analysis provided context to understand the admission trends in regards to the two categorical variables of race and community type at the University of New Orleans between in 2011 compared to 2012. Each chi-square test was run to examine statistical significance before the policy change (2011) and after the policy change (2012).

To provide granular descriptive statistics, seven chi-square tests were performed on categorical variables of race and community type, Table 5. The categorical variables of race (Black students and White students) and community type (New Orleans and not New Orleans) can determine if there is an association between the independent variables and admission into the University of New Orleans. By conducting a study prior to the increase of admissions standards, this study was able to compare admission rates by two levels of race, Black and White, and two levels of community type, Orleans and not Orleans.

<i>Table 5. Seven Chi-Square Statistical Tests</i>		
<i>Chi-Square # 1: 2011 – Impact by Race</i>		
Categorical Variable	Admitted	Not Admitted
Black		
White		
<i>Chi-Square #2: 2012– Impact by Race</i>		
Categorical Variable	Admitted	Not Admitted
Black		
White		
<i>Chi-Square # 3: Impact of Policy for Black</i>		

Categorical Variable	Admitted	Not Admitted
Black-2011		
Black-2012		

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*Chi-Square #4: Impact of Policy for White*

Categorical Variable	Admitted	Not Admitted
White-2011		
White-2012		

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*Chi-Square #5: 2011 – Impact by Community Type*

Categorical Variable	Admitted	Not Admitted
New Orleans		
Other		

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*Chi-Square #6: 2012- Impact by Community Type*

Categorical Variable	Admitted	Not Admitted
New Orleans		
Other		

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*Chi-Square #7: Impact of policy for Orleans Community Type*

Categorical Variable	Admitted	Not Admitted
New Orleans-2011		
Other-2012		

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Observed frequencies were compared to expected frequencies to determine the difference between the frequency patterns. Individual frequency counts and percentages were obtained for each student’s characteristic (race and community type), and then the combinations of characteristics for each group were observed, for the years 2011 and 2012. Using this data set better informed if a disparate impact may have already existed in admissions policies prior to the admissions policy change.

**Examining Disparate Impact.** The outputs from each chi-square test produced an admitted percentage. Upon receiving the percentage outputs for each chi-square test, the disparate

impacts four-fifths rule was calculated. The Disparate Impact test uses the four-fifths test to calculate a selection rate by taking the percent selected from the protected group and dividing it by the percent of the referent group. More specifically, the first step required using the admitted rate from each group. This percentage was provided from the chi-square test. Next, the researcher identified the group with the highest admitted student rate. To calculate the selection rate, the selection rate of the protected group was divided by the highest group. The final output is the percentage known as the selection rate. If the selection rate, or output percentage, was less than 80% then disparate impact has been observed using the data. If the selection rate was greater than 80%, then disparate impact has not been established.

### **Binary Logistic Regression**

This quantitative case study also employed a binary logistic regression to address the second question: For the time period after the change in admission test requirements, do the variables of race and community type predict the likelihood of admission rates at an urban, public university? The null hypothesis states that race and community type do not predict admission rates to urban, public universities. Particularly, since the dependent variable was dichotomous (admitted or denied) based on two discrete member groups, binary logistic regression will be employed as a statistical tool for the analysis.

Regression analysis is often associated with a prediction. The use of binary logistic regression as a statistical tool has been applied and noted in several studies related to admissions in an effort to determine admissions and enrollment outcomes (Bruggink & Gambhir, 1996; Goenner & Pauls, 2006; Ledesma, 2009; and Hayes, 2013). In each of these studies on admissions that employ binary logistic regression, independent variables were used as predictors to better understand how they impact the dependent variables to predict admissions outcomes. Logistic

regression permits the use of independent variables (X) to determine the “non-inherent relationship between X and the popularity of Y” (Pampel, 2000, P.14). A binary logistic regression allowed this study to analyze the year after the 2012 policy change to determine if the increase in admissions standards had a different impact on admission rates for students.

For the purpose of this study, predictors were sequentially entered into the logistic regression model to observe their effect on the dependent variable as they are added to the model. The first set of predictors included race/ethnicity. For this group, students who self-identify as Black served as the reference group. The comparison group was students who self-identify as White. The second set of predictors was the geographic location based on community type (Orleans Parish as urban) or outside of Orleans Parish. Gender is the third set of predictors where Male is the reference group and female is the comparison group and Pell eligibility is the reference group and non Pell-eligible is the comparison group for the fourth set of predictors.

### **Synthesis**

While much is separately noted on urban public universities, admissions standards and the controversial impacts on race when using standardized test scores, research is limited on how the various factors converge in the contextual setting of an urban, public institution. The central purpose of the Disparate Impact Theory is examining the outcomes of the implemented policy. The specific context in this study examined the outcomes associated with raising the admissions standards at the University of New Orleans, an urban public university.

## Chapter 4: RESULTS

The primary purpose of this quantitative case study was to examine if there were significant associations between race, community type, and the likelihood of admission at an urban public university before and after an admissions policy change that heavily relied on increased standardized test scores. The time period focused on applicants before the change in 2011 and after the change in 2012. Additionally, this study explored whether other demographic variables significantly predicted admission at an urban, public university in regards to the increased standardized test scores. Other background variables included gender (male or female) and socioeconomic status (low-socioeconomic status or not low-socioeconomic status). Students eligible for the Pell Grant met the criteria for low socioeconomic status under the guidelines of this correlational study.

This chapter on data analysis discusses the results for this quantitative case study in three sections. First, descriptive statistics of the data are presented by the admissions stage for applicants, admitted, and enrolled. Within these distinct admissions stages, the descriptive statistics are examined for the years between 2011 and 2018. Following the broad, overarching highlights of the data from 2011 to 2018, each population and variable will be highlighted specifically for 2011 and 2012. The year 2011 represents the year before the admissions policy change and the year 2012 represents the year after the admissions policy change. Focusing on descriptive statistics for the 2011 and 2012 data set outlines the data set used for the statistical tests in this study. Subsequently, the narrowed 2011 and 2012 descriptive statistics reflect the data set included in the chi-square analysis and binary logistics regression. The second section presents the first research question and hypothesis testing using chi-square. The chi-square outputs are used to determine and



evaluate trends. Finally, the binary logistic regression results are organized to answer the second research question.

### **Description of Sample**

This correlational study explored longitudinal methods by examining applicants by race, community type, socioeconomic status, and gender for the years leading up to 2018 (the most recent year available at the time of this study). At the applicant stage of the admissions process, the descriptive statistics of applicants represents the total entire data set used in this study. The entire data set of applicants consisted of 16,174 students. The number of applications received by year is represented in table 6. To provide an overview of admission trends following the policy change, Table 6 also includes the percentage make-up of total applications in the data set.

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Table 6. Data Set Applications by Year

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Year	Applications	%
2011	1,650	10.2%
2012	1,082	6.7%
2013	1,391	8.6%
2014	1,812	11.2%
2015	2,288	14.1%
2016	2,225	13.8%
2017	2,472	15.3%
2018	3,254	20.1%
Total	16,174	100%

---

## Descriptive Statistics of Applicants, 2011-2018

With most of the increase in applications occurring in the years leading up to 2018, approximately half (50.8%,  $n=8,223$ ) of the students applied for admission between 2011 and 2015; and the remaining 49.7% ( $n= 7951$ ) applied for admission between 2016 and 2018. The year with the most applications was 2018 with 20.1% of the application pool ( $n=3254$ ). Comparatively, the year with the lowest number of applications received was 2012 with 1,082 applications which made up 6.7% of total applications between 2011 and 2018. This 34.4% decrease in applications between 2011 and 2012 represented the sharpest decline in applications in the data set.

## Descriptive Statistics of 2011 and 2012 Applicants

The years 2011 and 2012 represent the data set used in the statistical tests. More specifically, the data of applicants who applied for admission between 2011 and 2012 consisted of 2,732 students. Sixty percent ( $n = 1,650$ ) of the students applied for admission in 2011 and the remaining 40% ( $n = 1,082$ ) applied for admission in 2012. Academic year of application is presented in Table 7.

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Table 7. 2011 and 2012 Applications by Independent Variable

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Variable	Description	<i>N</i>	%
Applications	2011	1,650	60.4
	2012	1,082	39.6
	Total	2,732	100.0
Pell Grant Eligibility	No	1,732	63.4
	Yes	1,000	36.6
	Total	2,732	100.0
Community Type	Other	498	18.2

	New Orleans	2,234	81.8
	Total	2,732	100.0
Race	White	2,325	85.1
	Black	407	14.9
	Total	2,732	100.0
Gender	Female	1,479	54.1
	Male	1,253	45.9
	Total	2,732	100.0

Regarding race, most admits were white (85.1%,  $n = 2,325$ ) and 14.9% ( $n = 407$ ) were blacks. Females (54.1%,  $n = 1,479$ ) outnumbered males (45.9%,  $n = 1,253$ ). Most applicants (63.4%,  $n = 1,732$ ) were not eligible for the Federal Pell Grant, whereas 36.6% ( $n = 1,000$ ) were eligible. Regarding community type, 81.8% ( $n = 2,234$ ) were from New Orleans, whereas 18.2% ( $n = 498$ ) were from other areas. Relative to admission status, 77.0% ( $n = 2,105$ ) of students were admitted, whereas 23.0% ( $n = 627$ ) were not admitted. Demographic variables are summarized in Table 2.

Analyzing application data provides a snapshot into the interest of a student to seek admission to an institution. Examining associated trends and patterns at the applicant stage is the first step of three stages in the admission process for this study. The second stage is the admissions decision stage where a student is either admitted to attend, or either not offered admission, to enroll as a student.

### **Descriptive Statistics of Admitted Students, 2011 -2018**

Once a student applies for admission, an offer of admission is not guaranteed. University

officials determine admissibility based on set criteria. Analyzing the admitted student data from 2011 to 2018 provides long term insights on admissions trends around the policy change. In regards to admission status, 61.2% (n=9,896) of students were admitted compared to 38.8% (n=6,278) of applicants who were not admitted between 2011 and 2018, see Table 8.

Year	Admit	% of Apps
2011	1,133	68.7
2012	972	89.8
2013	896	64.4
2014	1,077	59.4
2015	1,433	62.6
2016	1,331	59.8
2017	1,326	53.6
2018	1,728	53.1
Total	9,896	100

The average admits in the data set are 1,237 applicants admitted between 2011 and 2018. The years 2015, 2016, 2017, and 2018 all had admitted above the average. These years also experienced year-to-year increases in applications from 2,288 to 3,254 applications in 2018. The year 2012 saw the largest percentage of applicants admitted with 90% (n=972) of students admitted. With fewer applications in the data set that year, a higher percentage of students were admitted. The subsequent year had 64% of applicants admitted which represents 896 admits in the year 2013 represented. Despite an increase of 306 applications in 2013 the 896 admits represents the lowest number of admits between 2011 and 2018. The lowest percentage decline of admitted occurred between 2013 and 2014 with only 59.4% (n=1,077) of applicants admitted.

During the time period of 2011 to 2018, there was an overall trend of decrease in admits. As applications grew from 1,650 to 3,254, fewer students were admitted. Despite having the largest actual number of admits (n=1,728), the lowest percentage of applicants admitted was 53.1%

compared to the first year in the data set where 68.7% of applicants were admitted. The change from 2011 to 2018 exhibits an overall decline of 15.6% in admits.

### Admitted Students 2011 and 2012

Analyzing the data set of admitted students in 2011 and 2012 allows for analysis in the periods before the policy change. More specifically, 2011 and 2012 are used in the chi-square and binary logistic statistical test. In regards to admission status in 2011 and 2012, 77.0% ( $n = 2,105$ ) of students were admitted, whereas 23.0% ( $n = 627$ ) of applicants who were not admitted. Demographic variables are summarized in Table 9.

Year	<i>N</i>	%	<i>Cumulative %</i>
2011	1,133	60.4	60.4
2012	972	39.6	100.0
Total	2,105	100.0	

Table 10 provides the independent variable descriptive statistics of admitted students by community type, gender, Pell eligibility, and race. While the 2,105 admitted students represent the total data set, additional findings can be highlighted by observing the sample by the independent variables of community type, gender, Pell eligibility, and race.

Variable	Description	<i>n</i>	%
Admitted	No	627	23.0
	Yes	2,105	77.0
	Total	2,732	100.0
Pell Grant Eligibility	No	1,148	54.5

	Yes	957	45.5
	Total	2,105	100.0
Community Type	Other	329	15.7
	New Orleans	1,776	84.3
	Total	2,105	100.0
Race	White	1,881	89.4
	Black	224	10.6
	Total	2,105	100.0
Gender	Female	1,093	51.9
	Male	1,012	48.1
	Total	2105	100.0

Representing the most balanced independent variable, females (51.0%,  $n = 1,093$ ) outnumbered males (48.1%,  $n = 1,012$ ). Most admitted students (54.5%,  $n = 1,184$ ) were not eligible for the Federal Pell Grant, whereas 45.5% ( $n = 957$ ) of admitted students were eligible. Representing a wide gap at both the applicant and admit stage, students from Orleans far outnumbered students from other communities. Regarding community type, 89.4% ( $n = 1,881$ ) of admitted students were from New Orleans, whereas 15.7% ( $n = 329$ ) were from other areas. Paralleling the trend at the applicant stage, the largest represented independent variable in the admitted pool of students between 2011 and 2012 was the 89.4% ( $n = 1,881$ ) White students. Alternatively, Black students represent 10.6% of admits and represent the smallest group of students in the applicant pool with 224 students.

Within this second stage of the admissions process, students are offered admission to attend the institution. For this study, the third stage involves the student's choice to enroll at the

institution. The next section provides the enrolled descriptive statistics in 2011 and 2012 from the cohort of students who were admitted during the same time period.

**Descriptive Statistics of Enrolled Students, 2011 - 2018**

In the admissions process, once a student is admitted to the institution, there is a final stage where students have a choice to matriculate and enroll. Overall, of the 9,896 admitted students in the data set, 41.6% of the students enrolled (n=4,116). Alternatively put, 58.4% (n=5,779), or the majority of admitted students, did not enroll at the institution.

The average enrollment between the years 2011 and 2018 was 515 students, see Table 11. At the applicant and admit stage, the years 2015, 2016, 2017, and 2018 experienced increased applications and admits above average. Despite representing the largest applications and admits, 2015-2018 experienced the lowest percentages of admits enrolled. The largest enrolled class occurred in 2011 with 623 students enrolled.

Year	Enrolled	% of Admits
2011	623	55.0%
2012	489	50.3%
2013	453	50.6%
2014	510	47.4%
2015	509	35.5%
2016	448	33.7%
2017	540	40.7%
2018	544	31.5%
Total	4,116	41.6%

Similar to the applicant and admit stage, the narrowest gap between variables is by gender with 48.5% female enrolled students (n=1,998) and 51.5% male (n=2,118). Alternatively, the largest gap within variables is community type with 89% (n=3,664) of Orleans students enrolling and 11% from other communities (n=452). The second largest gap within variables is by race with 80.9% of White students enrolling (n=3,331) compared to the 785 Black students who represented 19.1% of enrollment between the years 2011 and 2018. In comparing the year 2011 to the year 2018, fewer applicants were admitted in 2018. In 2011, 68.6% (n=1,133) of the applicants were admitted compared to 2018 when 31.6% (n=1,728) of applicants were admitted.

**Enrolled, 2011 and 2012**

With a cumulative total of 2,105 students admitted in the years 2011 and 2012, 52.9% (n=1,112) of the admitted students enrolled to take classes at the institution, see Table 12.

Table 12. Enrolled Between 2011 and 2012		
Year	<i>N</i>	%
2011	623	56.0
2012	489	44.0
Total	1,112	100.0

The 1,112 represents 40.7% of applicants in the years 2011 and 2012. Between the years 2011 and 2012, 8% fewer students enrolled at the institution, see Table 13. The decrease represents 134 students from 623 to 489 students. While the 1,112 enrolled students represent the total data set, additional findings can be highlighted by describing the sample by the independent variables of community type, gender, Pell eligibility, and race.



Variable	Description	<i>n</i>	%
Enrolled	No	993	47.1
	Yes	1,112	52.9
	Total	2,105	100.0
Pell Grant Eligibility	No	467	42.0
	Yes	645	58.0
	Total	1112	100.0
Community Type	Other	100	9.9
	New Orleans	1012	90.1
	Total	1112	100.0
Race	White	982	88.3
	Black	130	11.7
	Total	1,112	100.0
Gender	Female	527	47.3
	Male	585	52.7
	Total	1112	100.0

Regarding race, most students were white (88.3%,  $n = 982$ ) and 11.7% ( $n = 139$ ) were Black. Although females outnumbered men at the application and admit stage, males (52.7.9%,  $n = 585$ ) enrolled at a higher rate than females (47.3%,  $n = 527$ ). In a similar difference between groups, Pell-eligible students outnumbered non Pell-eligible students at the applicant and admitted stage. At the enrollment stage, most students (42.0%,  $n = 467$ ) were not eligible for the Federal Pell Grant, whereas 58.0% ( $n = 645$ ) were eligible. Regarding community type, 90.1% ( $n = 1,012$ ) were from New Orleans, whereas 9.9% ( $n = 100$ ) were from other communities.

### **Synthesis of Descriptive Statistics**

The 2011 to 2018 description of the sample for this study provided a broad overarching analysis of admissions trends for applicants, admits, and enrolled students. Next, descriptive statistics specifically narrowed focus on the years 2011 and 2012. Of significant note was the decrease in applications, admits, and enrolled students following 2011. Although an increase in

applications and admits occurred in 2015 and beyond, the number of enrolled students did not keep the trend.

Using the 2011 and 2012 data set for applicants and admits, nine statistical tests were conducted to answer two research questions. The chi-square examined the data at the applicant and admitted admission stages to calculate a selection rate. The selection rate was used with each chi-square to investigate disparate trends by race, community type, and admissions status.

### **Chi-Square for Disparate Impact Analysis**

The first guiding research question for this study asked how did admission rates change, if at all, from before to after the change in admission test requirements for selected subgroups of students at an urban, public university? To expand the descriptive statistics by variable, seven bivariate chi-square Analyses were conducted using data from 2011 and 2012.

The first chi-square test analyzed the data set for admission by race in 2011. As a comparison, the second chi-square test analyzed applications and admission by race in 2012. The third test conducted a deeper dive to analyze a chi-square analysis of Black applicants in 2011 and 2012 while the fourth test examined White applicants and admits in 2011 and 2012. The fifth test looked at community type in 2011 for Orleans students and other communities while the sixth test examined community type in 2012. The final, and seventh chi-square test conducted analyzes community type in 2011 and 2012. Within each of these chi-square analyses, percentages of admitted students are provided with the statistical outputs. Using these percentages, the selection rate is calculated to investigate disparate impact. The selection rate provided an evaluation to assess additional significance in terms of admissions rate change.

### Admission by Race in 2011

The first chi-square analysis examined admission by race (for black and white applicants) in 2011 (before the admissions policy change). The null hypothesis stated that there is no statistically significant association between student race and admission at an urban, public university in 2011. The alternative hypothesis stated that there is a significant association between student race and admission status at an urban, public university in 2011.

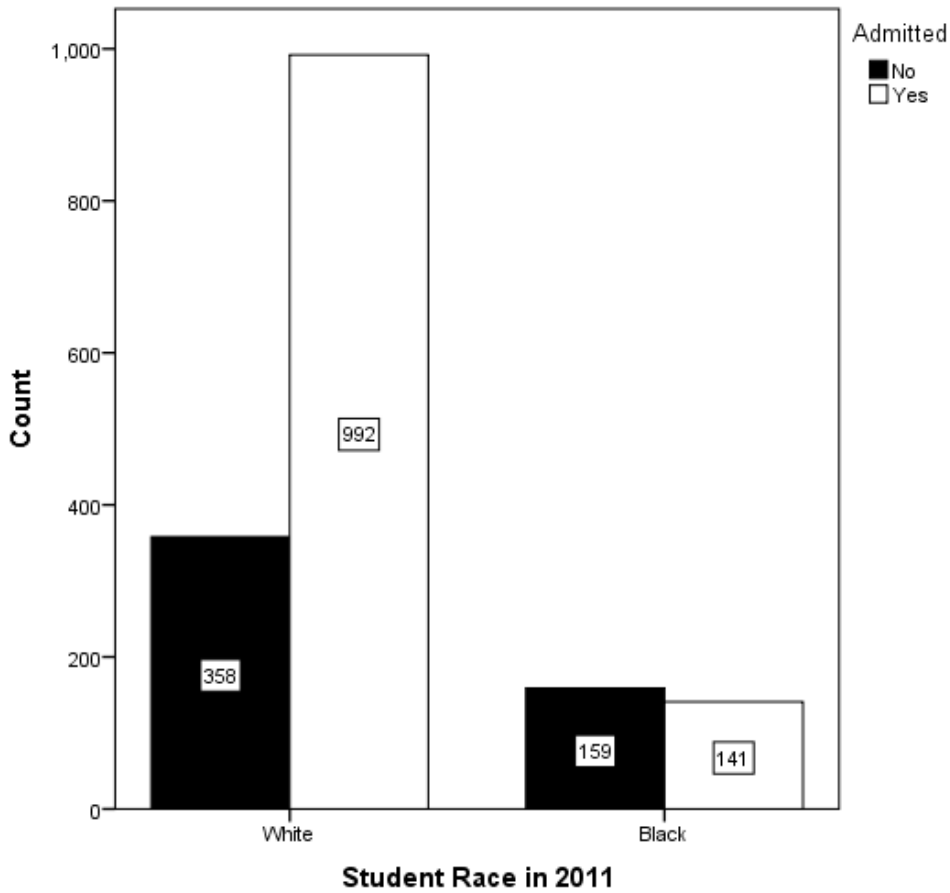
Of the 1,650 applicants in 2011, 18.2% were black (n=300) compared to white students who made up 81.8% of total applicants in 2011 (n=1,350). Of the 300 black students who applied for admission in 2011, 47.0% of Black students were admitted (n=159). In the same year, 73.5% of White students were admitted to the urban, public university (n=992), see Table 14.

Table 14. Impact by Race in 2011

		Admitted			
		No	Yes	Total	
Race	White	Count	358	992	1350
		% within Race	26.5%	73.5%	100.0%
		% of Total	21.7%	60.1%	81.8%
	Black	Count	159	141	300
		% within Race	53.0%	47.0%	100.0%
		% of Total	9.6%	8.5%	18.2%
Total		Count	517	1133	1650
		% within Race	31.3%	68.7%	100.0%
		% of Total	31.3%	68.7%	100.0%

There was a significant association between student race and admission status at an urban, public university in 2011,  $\chi^2(1, N = 1650) = 80.00, p < .001$ . Therefore, the null hypothesis was rejected. A higher percentage of white students (73.5%, n=992) were accepted than the percentage of Black students (47.0%, n=141).

Figure 1. Admission by Race in 2011



The 53% (n=150) of black students not admitted, 53%, doubled the 26.5% (n=358) of white students who were not admitted in 2011. To analyze disparate impact, the admit rate of the protected group is divided by the admit rate of the majority group. This outcome produces a percentage known as the selection rate. If the selection rate is below the established threshold of 80%, then disparate impact has occurred. With an admitted rate of 47% for Black students and 73.5% for White students, the selection rate of 63.9% establishes disparate impact for Black students in 2011.

## Admission by Race 2012

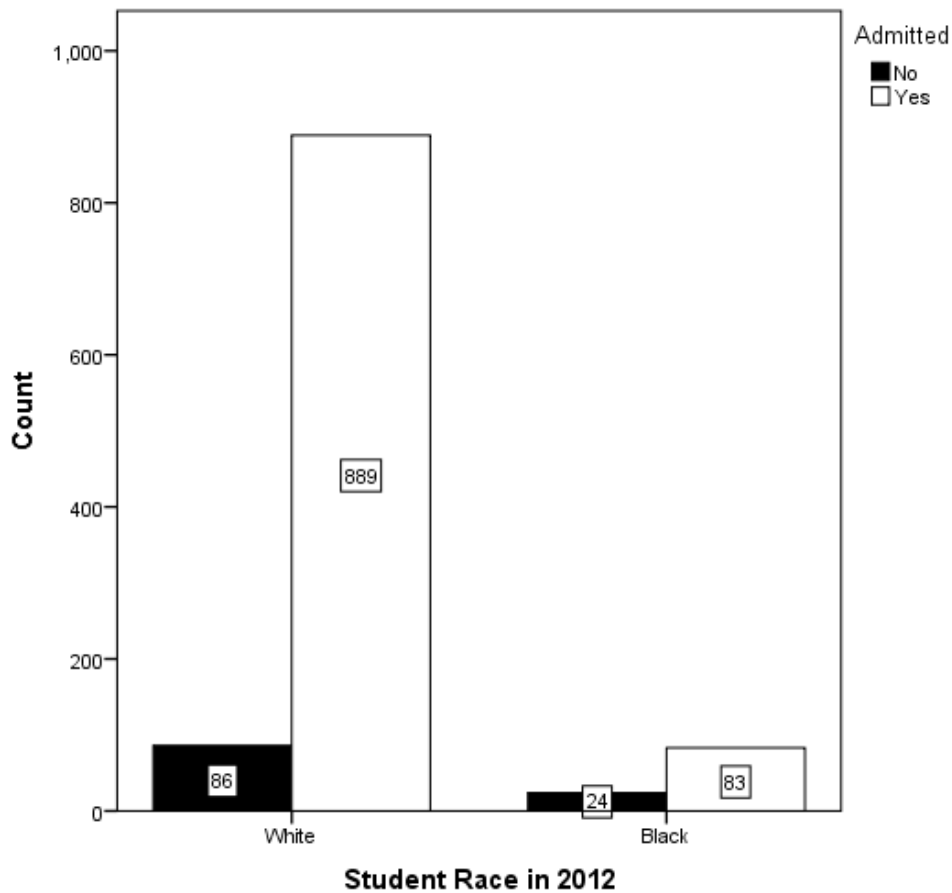
The second chi-square analysis examined admission by race (for black and white applicants) in 2012 (after the admissions policy change). The null hypothesis stated there is no statistically significant association between student race and admission at an urban, public university in 2012. The alternative hypothesis stated that there is a significant association between student race and admission status at an urban, public university in 2012. Table 15 shows the race matrix of admitted students in 2012. Of the 107 black students who applied in 2012, 22.4% of Black students were not admitted (n=24). In the same year, 7.9% of White students were not admitted to the urban, public university (n=86), see Table 15.

Table 15. Impact by Race in 2012

		Admitted			
		No	Yes	Total	
Race	White	Count	86	889	975
		% within Race	8.8%	91.2%	100.0%
		% of Total	7.9%	82.2%	90.1%
	Black	Count	24	83	107
		% within Race	22.4%	77.6%	100.0%
		% of Total	2.2%	7.7%	9.9%
Total		Count	110	972	1082
		% within Race	10.2%	89.8%	100.0%
		% of Total	10.2%	89.8%	100.0%

In 2012, there was a statistically significant association between race and admission at an urban, public university in 2012,  $X^2(1, N = 1082) = 19.55, p < .001$ . As a result, the null hypothesis was rejected. A higher percentage of white students (91.2%, n=889) were accepted than the percentage of Black students accepted (77.6%, n=83), see Figure 2.

Figure 2. Impact by Race in 2012



The 91.2% of admitted students after the change represent the highest percentage of students admitted from any racial group between 2011 and 2012. Alternatively, in the same year, 22.4% of black students (n=24) represent a higher percentage of Black students who were not admitted compared to the 8.8% white students (n=86) who were not admitted in 2012. In 2012, the number of Black students who were admitted (77.6%, n=83) exceeded the number of Black students (22.4%, n=24) who were not admitted. Those 59 students represent a 55.2% difference. With 77.6% of Black students admitted and 91.2% admission rate for White students, there is a

selection rate of 85% calculated. The 85% selection rate is above the 80% threshold of the four-fifths rule; therefore, no disparate impact occurred in 2012.

**Admission for Black Students in 2011 and 2012**

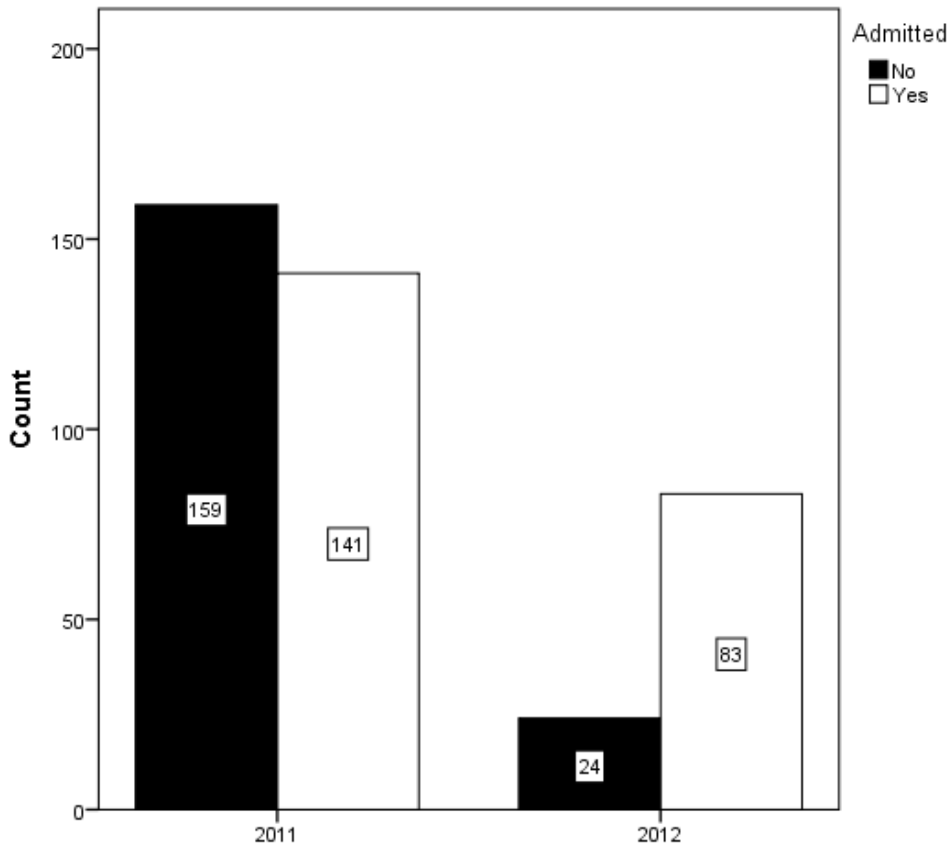
The third chi-square analysis examined admission by race for Black students both before and after the admissions policy change. From 2011 to 2012, in 2012 (after the admissions policy change), the null hypothesis stated there is no statistically significant association among Black students who apply for admission at an urban, public university in 2011. The alternative hypothesis stated that there is a statistically significant association among Black students who apply for admission at an urban, public university in 2012. Table 16 shows the race matrix of admitted students in 2012.

		Admitted			
			No	Yes	Total
Academic Year	2011	Count	159	141	300
		% within Academic Year	53.0%	47.0%	100.0%
		% of Total	39.1%	34.6%	73.7%
	2012	Count	24	83	107
		% within Academic Year	22.4%	77.6%	100.0%
		% of Total	5.9%	20.4%	26.3%
	Total	Count	183	224	407
		% within Academic Year	45.0%	55.0%	100.0%
		% of Total	45.0%	55.0%	100.0%

There was a statistically significant association between student race and admissions status among Black students who were admitted at an urban, public university before (2011) and after) the change in admission policy (2012),  $X^2(1, N = 407) = 29.79, p < .001$ . Based on these data results, the null hypothesis was rejected. A greater percentage of Black students (77.6%, n=83)

were admitted after the policy implementation than before the policy implementation (47%.0%, n=141).

Figure 3. Impact of Policy for Black applicants in 2011 and 2012



Alternatively stated, a higher percentage of Black students were not accepted (53.0%, n = 159). With an admitted rate of 47% for Black students and 73.5% for White students, the selection rate of 63.9% establishes disparate impact for Black students in 2011. With an admitted rate of 47% for Black students in 2011 and 77.6% for Black students in 2012, the selection rate of 60.6% is calculated. This selection rate falls below the 80% disparate impact threshold. As such, Black students were disparately impacted in 2011.



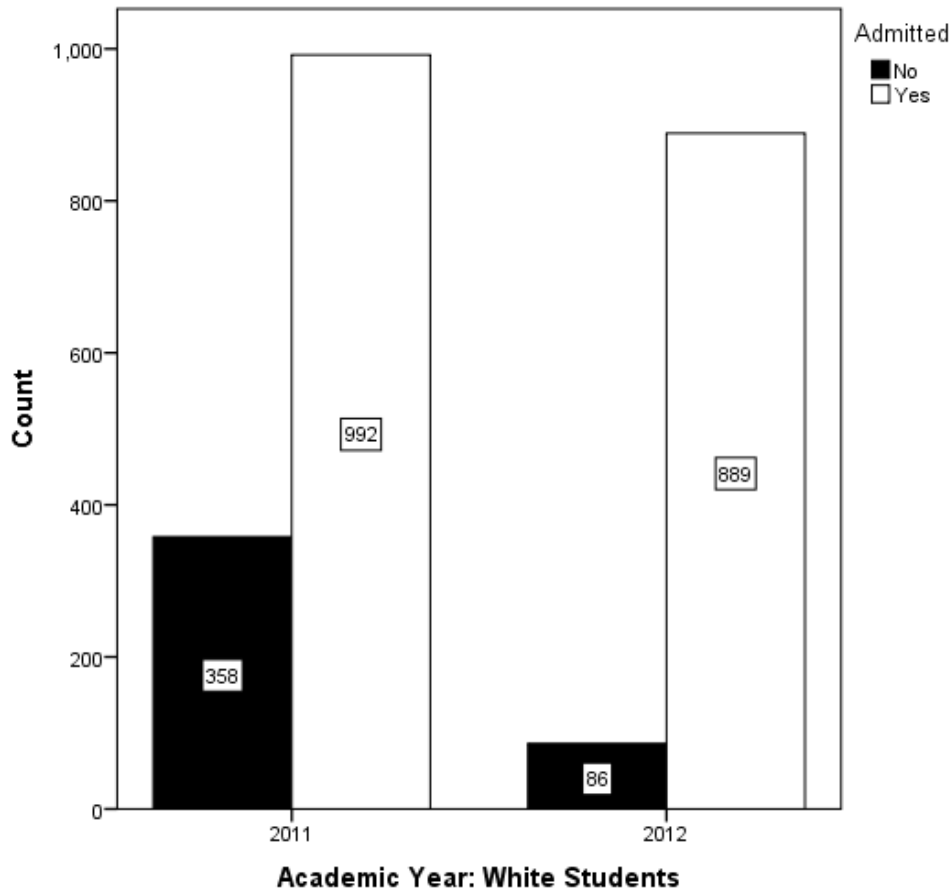
### Admission for White Applicants in 2011 and 2012

The fourth chi-square analysis examined admission by race for White students both before and after the admissions policy change. The null hypothesis stated that there is no statistically significant association among White students at an urban, public university between 2011 and 2012 during the change in admissions policy. The alternative hypothesis stated that there is a significant association among White students at an urban, public university between 2011 and 2012. Table 17 shows the race matrix of admitted White students in 2011 and 2012.

		Admitted			
		No	Yes	Total	
Academic Year	2011	Count	358	992	1350
		% within Academic Year	26.5%	73.5%	100.0%
		% of Total	15.4%	42.7%	58.1%
	2012	Count	86	889	975
		% within Academic Year	8.8%	91.2%	100.0%
		% of Total	3.7%	38.2%	41.9%
	Total	Count	444	1881	2325
		% within Academic Year	19.1%	80.9%	100.0%
		% of Total	19.1%	80.9%	100.0%

There was a significant association between student race and admission status among White students at an urban, public university before (2011) and after the change in the admissions policy (2012),  $X^2(1, N = 2325) = 114.77, p < .001$ . The chi-square analysis determined to reject the null hypothesis.

Figure 4. Impact of Policy for White students in 2011 and 2012



A greater percentage of White students were admitted before the policy change in 2011 (73.5%, n=992). Alternatively, in 2011, the 26.5% White students who were not admitted, (n=385) in 2011 were more than the 8.8% of White students who were not admitted in 2012 after the 2012 policy change. Relative to impact, White students had an 80.5% impact based on the admission rates between 2011 and 2012. This selection rate is above the 80% disparate impact threshold. As such, there was no disparate impact established for White students who applied during the time of policy change.

### Admission by Community Type in 2011

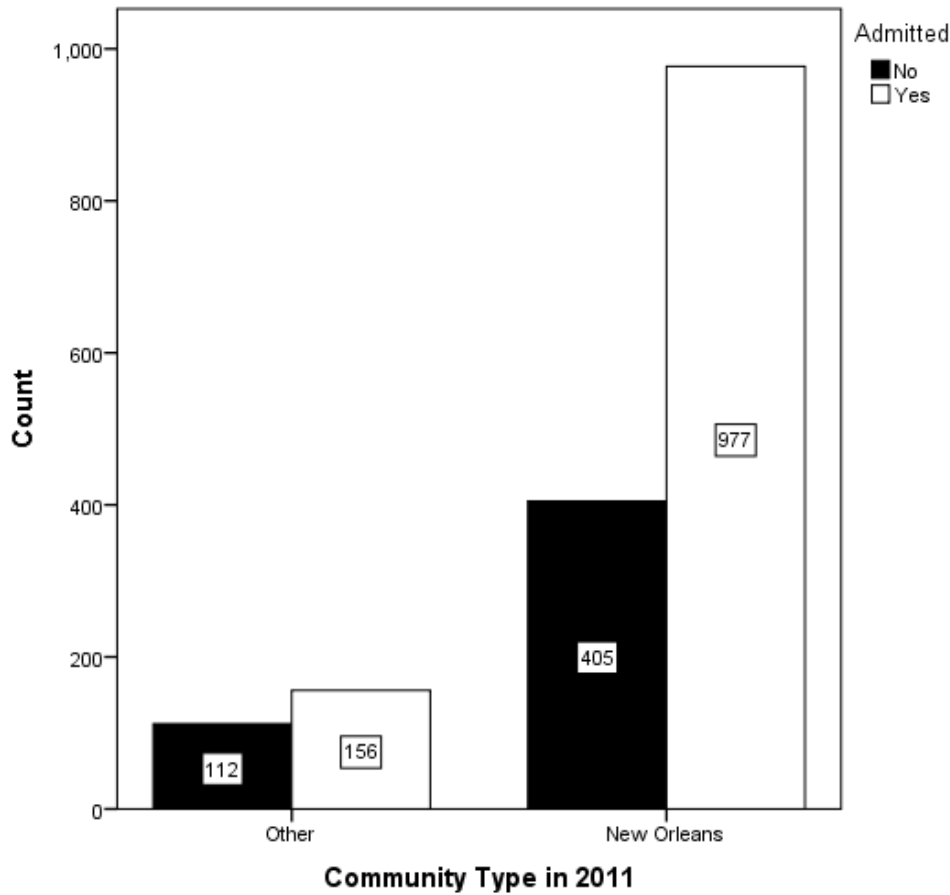
The fifth chi-square analysis examined the admission rates by community type (Orleans or not Orleans) for the time period before the admissions policy change. The null hypothesis stated that there is no statistically significant association between community and admission at an urban, public university in 2011. The alternative hypothesis stated that there is a significant association between student community type and admission status at an urban, public university in 2011. Of the 1,650 applicants in 2011, 70.7% Orleans students were admitted to the urban, public university in 2011 (n=977) compared to students from other communities where 58.2% of students were admitted in 2011 (n=156). Of the 1382 Orleans students who applied for admission in 2011, 29.3% of Orleans students were not admitted (n=405). In the same year, 41.8% of students from other communities were not admitted to the urban, public university (n=112), see Table 18.

Table 18. Impact by Community Type in 2011

		Admitted			
			No	Yes	Total
Community Type	Other	Count	112	156	268
		%	41.8%	58.2%	100.0%
		% of Total	6.8%	9.5%	16.2%
	New Orleans	Count	405	977	1382
		%	29.3%	70.7%	100.0%
		% of Total	24.5%	59.2%	83.8%
Total	Count	517	1133	1650	
	%	31.3%	68.7%	100.0%	
	% of Total	31.3%	68.7%	100.0%	

There was a statistically significant association between student community type and admission status,  $X^2(1, N = 1650) = 16.26, p < .001$ . Therefore, the null hypothesis was rejected. A greater percentage of New Orleans applicants (70.7%,  $n = 977$ ) were admitted in 2011 than applicants who were from other communities (58.2%,  $n = 156$ ).

Figure 5. Impact by Community Type in 2011



Conversely, a higher percentage of students from other communities were not admitted (41.8%,  $n = 112$ ) in 2011 than students from the New Orleans community who were not admitted (29.3%,  $n = 405$ ). With 58.2% of students from other communities admitted and 70% admission rate for Orleans students, there is a selection rate of 82.3%. The 82.3% selection rate is above the 80% threshold of the four-fifths rule; therefore, no disparate impact occurred in 2011.

**Admission by Community Type in 2012.**

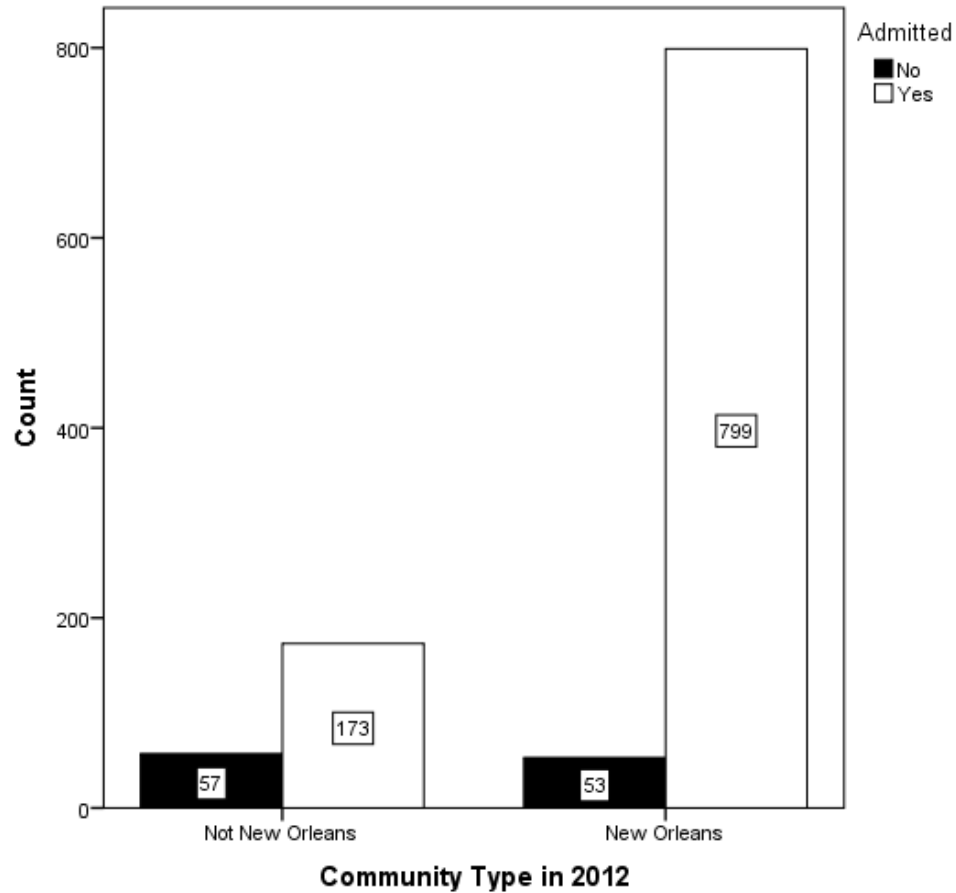
The sixth chi-square analysis examined admission by Community Type in 2012 (after the admissions policy change). The null hypothesis stated, there is no statistically significant association between community type and admission at an urban, public university in 2012. The

alternative hypothesis stated, there is a statistically significant association between community type and admission at an urban, public university in 2012. Of the 1,082 admitted students in 2012, 73.8% of the admitted students were from the Orleans community (n=799) compared to other communities who made up 75.2% of admits in 2012 (n=173). Of the 852 applicants from the Orleans community, 6.2% were not admitted (n= 53). In the same year, 24.8% of students from other communities (n=57) were not admitted to the urban, public university in 2012, see Table 19.

		Admitted				
			No	Yes	Total	
Community Type	Other	Count	57	173	230	
		% within Community Type	24.8%	75.2%	100.0%	
	New Orleans	Count	53	799	852	
		% within Community Type	6.2%	93.8%	100.0%	
		% of Total	5.3%	16.0%	21.3%	
Total		Count	110	972	1082	
		% within Community Type	10.2%	89.8%	100.0%	
			% of Total	10.2%	89.8%	100.0%

There was a statistically significant association between community type and admission at an urban, public university in 2012,  $X^2(1, N = 1082) = 68.33, p < .001$ . As a result, the null hypothesis was rejected. In 2012, 93.8% of Orleans applicants were admitted (n=799) compared to the 75.2% who were admitted from other communities in 2012 (n=173), see Figure 6.

Figure 6. Impact by Community Type in 2012



Conversely, a higher percentage of students from other communities were not admitted (24.8%,  $n = 57$ ) in 2012 than students from the New Orleans community who were not admitted (6.2%,  $n = 53$ ). With 75.2% of students from other communities admitted and 93.8% admission rate for Orleans students, there is a selection rate of 80.1%. The 80.1% selection rate is above the 80% threshold of the four-fifths rule; therefore, no disparate impact occurred in 2012.

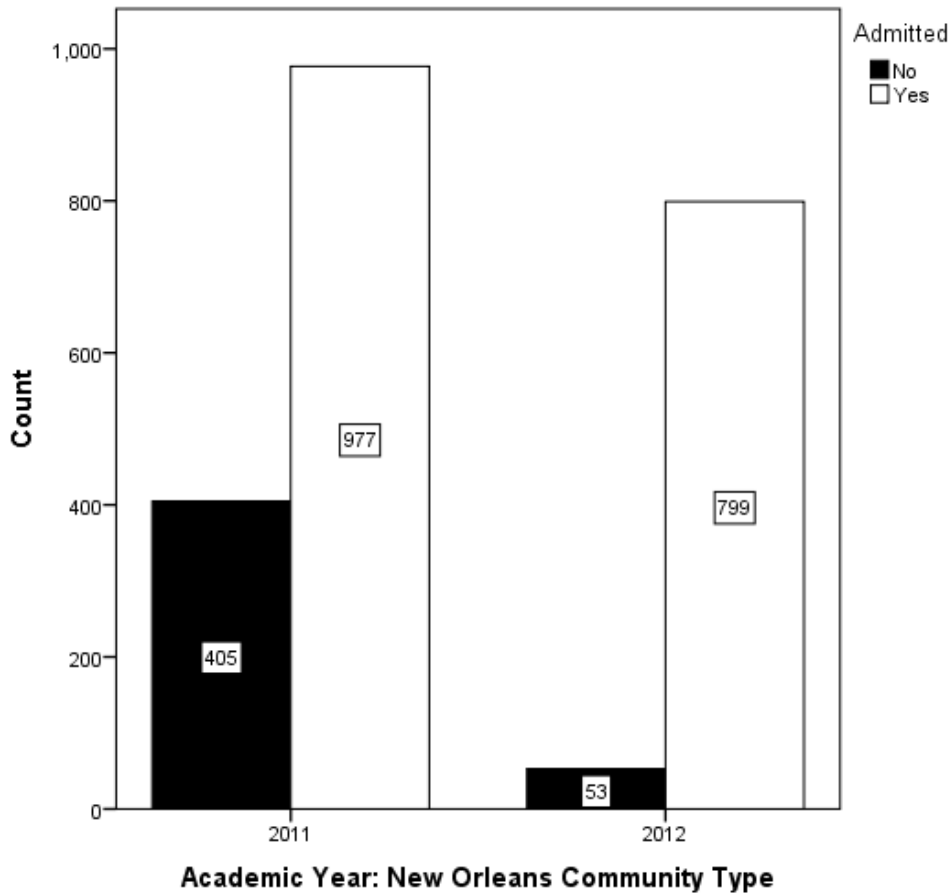
### Admission by Community Type in 2011 and 2012

The final chi-square analysis examined admission trends among community type before (2011) and after (2012) the admissions policy change. The null hypothesis stated, there is no statistically significant association between community type and admission status at an urban, public university before and after the change in admissions requirements. The alternative hypothesis stated, there is a significant association between community type and admission status at an urban, public university between 2011 and 2012. Table 20 illustrates a higher percentage of students from the New Orleans community were not admitted (29.3%,  $n = 405$ ) in 2011 than students from the New Orleans community who were not admitted (6.2%,  $n = 53$ ) in 2012.

			Admitted		Total
			No	Yes	
Academic Year	2011	Count	405	977	1382
		% within Academic Year	29.3%	70.7%	100.0%
	2012	Count	53	799	852
		% within Academic Year	6.2%	93.8%	100.0%
Total	2011	% of Total	18.1%	43.7%	61.9%
		Count	458	1776	2234
	2012	% within Academic Year	2.4%	35.8%	38.1%
		% of Total	20.5%	79.5%	100.0%

There was a statistically significant association between community type and admission status at an urban, public university before (2011) and after the change in admissions requirements in 2012,  $X^2(1, N = 2234) = 172.33, p < .001$ . As a result, the null hypothesis was rejected. A higher percentage of students from Orleans (93.8%,  $n=799$ ) were admitted in 2012 than in 2011 where 977, or 70.7% of students from Orleans were admitted, see Figure 7.

Figure 7. Impact of Policy by Community Type



Relative to impact by community type, there was a 75% selection rate impact based on the admission rates between 2011 and 2012. This selection rate is below the 80% threshold. As such, students from New Orleans had a disparate impact in 2012.

### Synthesis of Chi-Square Analysis and Selection Rate

To expand the descriptive statistics by variable, seven bi variate chi-square Analyses were conducted to answer the first research question. The chi-square tests provided focused on admit rates on a matrix of variables. It was determined that there was a significant association between student race and admissions status at an urban, public university. Additionally, significant



associations were found between community type and admissions status within each test. Using the percentage of admission from each chi-square test, selection rates were calculated to evaluate disparate impact. Using the four-fifths rule, disparate impact was established in three tests. Four of the seven tests did not establish disparate impact.

Table 21 synthesizes the three tests that established disparate impact on a specific population. Disparate Impact establishes any selection rate below the 80% threshold has determined disparate impact. The three tests that displayed disparate impact occurred in the year 2011. Two disparate impacts were found by the independent variable of race and one was by community type. By race in 2011, it was determined that there is an association between race and admissions status at the urban, public institution. A higher percentage of white students were accepted than Black students at a statistically significant rate with a disparate impact a 63.9% selection rate.

Not only were Black students disparately impacted when compared to White students in 2011, but significant associations between Black students from 2011 to 2012 were identified as well. With a 60.5% selection rate for Black students, a greater percentage of students were statistically associated with admission after the policy implementation than before the policy change in 2011.

Table 21. Three Tests with Disparate Impact Established

Test	Admitted	Not Admitted	Selection Rate
Race in 2011	73.5% White Admitted 47% Black Admitted	26.5% White Not Admitted 53% Black Not Admitted	63.9%
Black in 2011 vs. 2012	47% Black students Admitted in 2011 77.6% Black Students Admitted in 2012	53% Black Not Admitted in 2011 22.4% Black Students Not Admitted in 2012	60.6%
Community in 2011 vs. 2012	70.7% of Orleans admitted in 2011 93.8% of Orleans admitted in 2012	29.3% of Orleans not admitted 6.2% of Orleans not admitted	75.0%

Similar to the studies on race that found disparate impact occurred in 2011 for the independent variable of community type and admission. There was a significant association between student community and admission status at an urban, public university before (2011) and after the change in admission requirements (2012) among students from the New Orleans community. The 93.8% of students from the New Orleans community who were admitted established a 75% selection rate when compared to the 70 % of students from New Orleans. Based on the findings, conditions improved for Black students and students from the New Orleans community in 2012.

Table 22 illustrates the four tests that did not establish disparate impact. Using the same 80% selection rate to establish disparate impact, those tests that yielded a selection rate above the threshold did not establish disparate impact. With a selection rate of 85%, there was no disparate impact by race in 2011 and 2012 and the admit rates were comparative among Black students and White students in 2012. Although White students were admitted at a higher percentage, no

disparate impact occurred between White students from the years 2011 and 2012. After the policy change, the selection rate of 80.5% showed comparable admit rates for students in 2011 and 2012.

Table 22. Four Tests with No Disparate Impact

Test	Admitted	Not Admitted	Selection Rate
Race in 2012	91.2% White Students Admitted 77.6% Black Admitted	8.8% White Not Admitted 22.4% Black Not Admitted	85.0%
White in 2011 vs. 2012	73.5% White Students Admitted in 2011 91.2% White Students Admitted in 2012	26.5 White Students Not Admitted 8.8% White Not Admitted in 2012	80.5%
Community in 2011	58.2% of Other communities admitted 70.7% of Orleans admitted	41.8% of other communities not admitted 29.3% of Orleans not admitted	82.3%
Community in 2012	75.2% other communities admitted 93.8% of Orleans Committed	24.8% Other not admitted 6.2% Other communities not admitted	80.1%

Relative to community type, there was a significant association between student community and admission status at an urban, public university. A greater percentage of students from the New Orleans community were admitted in 2011 and 2012 than students who were from other communities. The selection rates for students from New Orleans also showed no disparate impact from 2011 to 2012 as a greater percentage of New Orleans students were admitted after the policy change in 2012.

The first research question aimed to examine each variable and their admission rates prior to the policy change. Next, those rates were compared to the admission trends following the policy change through a chi-square Analysis and the calculation of selection rates.

### **Binary Logistic Regression**

Following the descriptive statistics and chi-square tests, two binary logistic regressions were conducted to answer the second research question. The second guiding research question for this study asked: for the period before and after the change in admission test requirements, do the variables of race, community type, gender, and socioeconomic status predict the likelihood of admission at an urban, public university? The first binary logistic regression was conducted to predict admission for applicants in 2011 at the urban, public institution. The second binary logistic regression was conducted to predict admission in 2012. The predictor variables were race, community type, gender, and socioeconomic status. The dichotomous dependent variable was whether a student was admitted to the urban, public university (yes), or not (not admitted). Although the primary variables investigated for this quantitative case study focuses on race and community type, in the logistic regression analysis statistics were computed for two additional background variables. The background variables are socioeconomic status (as determined by Pell Grant eligibility) and Gender (male or female).

#### **Model 1: Conditional Probability of Being Admitted Before the Admissions Policy Change**

Similar to the previously conducted chi-square test before the policy change, there were 1,650 applicants in the 2011 data set. The null hypothesis stated that before the 2011 change in admissions policy, the student characteristics of race, community type, gender, and socioeconomic status do not predict the likelihood of admission at an urban, public university. The alternative hypothesis stated for the period before the change in admissions policy (2011), the variables of

race, community type, gender, and socioeconomic status do predict the likelihood of admission at an urban, public university. Table 23 includes the model summary.

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	1628.273 <sup>a</sup>	.226	.318

A test of the full model against the constant model statistically significantly predicted admission status, (Omnibus  $X^2 = 423.48$ ,  $df = 4$ ,  $p < .001$ ). The omnibus chi-square test was significant. Therefore, the null hypothesis was rejected. The model accounted for between 22.6% and 31.8% of the variance in admission with 96.6% of the students admitted correctly. However, only 26.5% of the predictions for students not admitted were accurate. Overall, 74.7% of the predictions were accurate, see Table 24.

Step	Observed	Admitted		Predicted	
		No	Yes	Percentage Correct	
1	Admitted	No	137	380	26.5
		Yes	38	1095	96.6
Overall Percentage				74.7	

The Wald criterion demonstrated that in 2011 all four of the variables made a significant contribution to the prediction for the variables of race, community type, Pell-eligibility, and gender. Table 25 provides the coefficients and the Wald Statistic, beta coefficients, and associated degrees of freedom for each of the predictor variables.

Variable	<i>B</i>	<i>S.E.</i>	<i>Wald</i>	<i>df</i>	<i>p</i>	<i>Exp (B)</i>
Race	-1.80	.173	107.83	1	.000	.165
Community Type	.459	.152	9.07	1	.003	1.58
Pell Eligibility	2.77	.202	189.12	1	.000	16.0
Gender	.298	.122	5.93	1	.015	1.35
Constant	.020	.145	.019	1	.889	1.02

*Note.* Race: 1=Black, 0=White; Community: 1=New Orleans, 0=Other; Socioeconomic Status: 1=Pell Grant Eligible, 0=Not Pell Grant Eligible; Gender: 1=Male, 0=Female.

Specifically, Black students had reduced odds of being accepted compared to their white counterparts by a factor of 0.17,  $p < .001$ . The exponential beta coefficient ( $Exp(B)$ ) value for the variable of Community Type indicated that students from the Orleans community were 1.58 times more likely to be admitted than students from other communities,  $p = .003$ . The  $Exp(B)$  value for the variable of Pell-eligibility indicated that students who were Pell-eligible were 16 times more likely to be admitted than students who were not eligible,  $p < .001$ . The  $Exp(B)$  value for the variable of gender indicated that males were 1.35 times more likely to be accepted than females,  $p = .015$ . As such, all of the independent variables significantly predicted admission in 2011.

### **Model 2: Conditional Probability of Being Admitted After the Admissions Policy Change**

Model 2 analyzed a total of 1,082 applicants in 2012 to examine the conditional probability of being admitted to the institution after the admissions policy change. The null hypothesis stated that for the period after the change (2012) in admission test requirements, the variables of race, community type, gender, and socioeconomic status do not uniquely predict likelihood of admission at an urban, public university. The alternative hypothesis states: for the period after the change (2012) in admission test requirements, the variables of race, community type, gender, and socioeconomic status do not uniquely predict the likelihood of admission at an urban, public university. Table 26 includes the Model Summary.

Table 26. Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	567.512 <sup>a</sup>	.124	.258

The full model significantly predicted admission status, (Omnibus  $X^2 = 143.84$ ,  $df = 4$ ,  $p < .001$ ). As a result, the null hypothesis was rejected. The model accounted for between 12.4% and 25.8 of the variance in admission status with 99.2 of the students admitted correctly predicted. Alternatively, only 14.5 % of the predictions for non-admitted students were accurate. Table 27 shows that overall, 90.6% of the predictions were accurate.

Table 27. Classification Table for Probability of Being Admitted in 2012

	Observed	Predicted		Percentage Correct	
		Admitted			
		No	Yes		
Step 1	Admitted	No	16	94	14.5
		Yes	8	964	99.2
Overall percentage				90.6	

Table 28 provides the coefficients and the Wald statistic and associated degrees of freedom and probability values for each of the predictor variables. The Wald criterion exhibited that all four of the variables of race, community type, and Pell eligibility statistically significantly predicted admission in 2012. Specifically, the Exp(B) value for the variable of Race indicated that Black students had reduced odds of being accepted compared to their white counterparts by a factor of 0.24,  $p < .001$ . The Exp(B) value for the variable of community type indicated that students from

the New Orleans community were 3.55 times more likely to be admitted than students from other communities,  $p < .001$ .

Table 28. Coefficients for Probability of Being Admitted in 2012

<i>Variable</i>	<i>B</i>	<i>S.E.</i>	<i>Wald</i>	<i>df</i>	<i>Sig.</i>	<i>Exp(B)</i>
Race	-1.43	.312	20.91	1	.000	.240
Community type	1.27	.222	32.56	1	.000	3.55
Pell eligibility	2.67	.437	37.34	1	.000	14.46
Gender	.420	.225	3.49	1	.062	1.52
Constant	.806	.199	16.38	1	.000	2.24

*Note.* Race: 1=Black, 0=White; Community: 1=New Orleans, 0=Other; Socioeconomic Status: 1=Pell Grant Eligible, 0=Not Pell Grant Eligible; Gender: 1=Male, 0=Female.

Students who were eligible for the Federal Pell Grant were 14.46 times more likely to be admitted than students who were not eligible, ( $p < .001$ ). Gender was not a significant predictor of admission status,  $p = .062$ . As such, three out of four independent predictor variables significantly predicted admission.

### **Synthesis of Binary Logistic Regressions**

Two binary logistic regression models were conducted on the data before and after the implementation of the admission requirements changed. In both models (2011 and 2012), it was determined that race, community, and socioeconomic status predicted admissions. Gender was the only variable to change in predictability from the 2011 model and 2012. By 2012, gender was not a significant predictor of admission status, however, in 2011 males were statistically significantly more likely to be admitted than females. Otherwise, 2011 and 2012 models paralleled that Black students had reduced odds of being accepted compared to their white counterparts. Also, in both years, students from the New Orleans community were more likely to be admitted than students from other communities. Students who were eligible for the Federal Pell Grant were more likely



to be admitted than students who were not eligible. Gender was not a significant predictor of admission status.

### **Synthesis of Quantitative Findings**

Two research questions and 9 associated hypotheses were examined using a variety of statistical tools. At the conclusion of the data analysis, disparate impact was identified before the change in admissions policy in 2011. While race, community type, and socioeconomic status are predictable variables. Chapter Five will discuss these findings and cross-reference the outcomes with the application and enrollment trends within the data set. In addition, implications and recommendations will be discussed.

## **Chapter 5: DISCUSSION**

The purpose of this quantitative case study was to offer an analysis of urban public universities and their accessibility to the communities they were designed to serve. To inform this discussion, applicants to an urban public university were investigated before a change in standardized test scores (in 2011) and after the change in standardized test scores (in 2012). In regards to race, three of the seven tests established disparate impact and each of those disparate impact cases occurred before the policy change in 2011. In summary, a disparate impact was identified for Black students in 2011 when compared to White students in 2011 and Black students in 2012. The findings concluded that the change in policy did not produce a disparate impact after the policy change. This chapter provides a more-in-depth analysis of these results by discussing the data set to explore the empirical findings. From 2011 to 2012, a sharp decrease in applications caused a reduction in access for all subgroups in this study. It is against this background the discussion will explore the empirical findings at the applicant stage and the admitted stage. Next, the scholarly implications, limitations, delimitations, and recommendations will be explored.

### **Discussion**

While the quantitative findings did not establish disparate impact following the admissions, when the applications were examined in 2012 for statistical testing, notable shifts were noted in the data set. The trends presented in this discussion provide context to inform the findings associated with this disparate impact study. Overall, a disparate impact was established to have occurred before the policy change 2011 in that equitable admission was determined in 2012; however, fewer applicants were noted in the data set. With the decrease in applicants in 2012, the

data set provided a significant shift in the landscape to examine disparate impact before 2011 and 2012.

In Chapter 4, the applications, admits, and enrolled statistics were highlighted with granular descriptive statistics presented at each admissions stage. Table 29 comparatively shows the enrollment trends within each year.

Year	Applications	Admitted	Enrolled
2011	1,650	1,133	623
2012	1,082	927	489
2013	1,391	896	453
2014	1,812	1,077	510
2015	2,288	1,433	509
2016	2,225	1,331	448
2017	2,472	1,326	540
2018	3,254	1,728	544
Total	16,174	9,896	4,116

From 2011 to 2018, the longitudinal results demonstrate a sharp increase in applications from 1,650 to 3,254. While application rates can vary based on graduation rates each year, the 49.2% increase parallels the increasing trend for first-time freshmen applying to more college applications. In 2011, 29% of students applied to three or more colleges (NACAC, 2017). That number has increased to more than 80% of first-time freshmen having applied to at least three colleges each year (Stolzenberg, Eagan, Aragon, Cesar-Davis, Jacobo, Couch, & Rios-Aguilar, 2018). As a historical benchmark, only 17% of students applied to seven or more colleges in the year 2005. Over time, that percentage of students applying to seven or more colleges has increased from 29% in 2011 to 36% (NACAC, 2019). At the time of this study, the CollegeBoard recommends that students submit admissions applications at five to eight institutions (CollegeBoard, 2019). Scholars have attributed the increase in applications to the intersection of increased competition for admission to institutions (Pew Research Center, 2019), the growing

popularity of the Common Application and their ability to simplify the process of applying to multiple institutions (Common Application, 2019), and even increased outreach efforts from institutions (Hanover Research, 2014). As admission application submissions per student rise, institutions must prepare to receive and process the applications. It is equally imperative that institutions understand how the trend impacts their enrollment numbers.

During the time of the study, 2011-2018, the number of high school graduates increased in the city of New Orleans and in state of Louisiana (Louisiana Board of Education (2019), see Appendix A. For Louisiana students the growth increased by 17.9% (n=7,813) and within Orleans, the community of the institution, the number of high school graduates by 1,417 students which represented a 55% increase (Louisiana Board of Education, 2019). With more students applying to more institutions, each year, the number of applications received per institution tends to trend upward.

### **The Effect of Policy Change on Applications: Unanticipated Findings**

While increases in admission standards are often aimed to increase retention and graduation rates, recent studies have begun correlating changes in admissions policies to shifts in application pools (Alfonso & Calcagno, 2007; Bound, Hershbein & Long, 2009; Kirst & Venezia, 2004; Tugend, 2019). Overall, the data set revealed a consistent, sharp decline in applications, admits, and enrolled in 2011 and 2012. These findings were consistent with the research that shows when admissions policies shift towards a more perceived selectivity, application rates decline. Alfonso and Calcagno's (2007) study the impact of changing admissions rates concluded that students from underrepresented minorities were notably "discouraged from applying to and enrolling" at Texas A & M when admissions policies were perceived as being more selective. Based on similar findings, Kirst and Venezia (2004) developed a new theoretical framework

known as signaling, which refers to the indirect impression or flow of messages being communicated to students via admissions and financial aid cues. In the years of the admissions policy change for this study, a decline of 34.4% applications to the institution was noted.

Further indicating a downward application trend during the year of the policy change, applications increased slightly in the subsequent year of 2013 and did not meet pre-policy application numbers until the year 2014. The application numbers inconsistently staggered despite the number of high school graduates, and college-bound students, in the community continuing to increase (Louisiana Board of Education, 2019). The theory on signals affirms that admissions and financial aid policies have meaning; thus, signals to applicants, school counselors, and parents that specific types of students are wanted.

Based on the notion of institutions signaling to students through policy, Bounds, Hershbein, and Long (2009) would describe this study's 2012 decrease in applications as a "rational behavioral response" to increasing admission's threshold (p. 9). Shifting institutional policies on admissions and financial aid reflect the institution's values on educational equity and opportunity (Pernus & Titus, 2004). Changes in admission and financial aid policies have established a correlation to subsequent decreases in application (Tugend, 2019). As a result, the institutional policy change notably impacted the demographic make-up of the applicant pool before and after the policy changes (Alfonso & Calcagno, 2007). Relevant to this study, in 2011, Black students represented 18.2% of apps compared to 81.8% of apps for white students. By 2012, black students represented 9.8% of applicants compared to 90.1% applicants. A decline in applications was also noted by community type. By community type, there was a 38.3% decrease in applications for students from New Orleans and a 14.1% decrease in application in students for students from other

communities. In this case, students of color and students from the Orleans communities likely self-selected themselves out of applying at higher rates during the year of the policy change.

Parallel to the findings of this study, as policies are perceived as a barrier, applications decline. Changes in applications following a policy change further amplify the theory of students and signaling. In 2018, the University of Chicago signaled an increased institutional commitment to increase accessibility through changing admissions standards and new financial aid. The signals sent to the students yielded unprecedented interest and enrollment numbers from students in underrepresented backgrounds (Hoover, 2019; Jump, 2019). After Worcester Polytechnic University dropped its SAT requirement, minority applications rose by 30% (Jaschik, 2008). Similarly, Providence College implemented a test-optional policy and not only enrolled more students of color, but the institution also recorded a 21% increase in applications from racially diverse students (Shanley, 2007). In summary, institutions that moved towards admissions policies perceived as equitable, such as test-optional, an increase was observed increase in applications (Franks, Hiss, & Syverson, 2018). The data from this quantitative case study contributes to the literature that signals theory extends to urban public institutions.

While the focus of this study examined admissions rates, a significant finding concludes that a change in admissions policy becomes part of the college decision-making process for students, including the decision to apply at all. Of most significance is the decrease in applications yielded increased percentages. In turn, the demographic shift in the pool impacted the counts from 2011 to 2012 and percentages associated with the statistical outcomes.

### **Predicting Admissibility after an Admissions Policy Change**

What is distinct about this analysis is that disparate impact was examined and noted at the admit stage of the admissions process. As part of the unanticipated findings, disparate impacts

were noted to have occurred before the policy change in 2012. It is important to note that a shift in applications after the policy change impacted applications to the institutions. Between 2011 and 2018, the year of the policy change represents the highest admit rate in the longitudinal data set. The higher admit rate was likely caused by fewer applications in the same year. Among the findings, the variables also yielded results to determine admissibility after an admission change. One of the most statistically significant findings of the study was the influence of the admissions policy change on gender from 2011 to 2012. Of the admitted students, males were more likely to be admitted in 2011 when compared with female students. After the policy change, in 2012, gender was not a significant predictor of admission status. The predictability of admission was also identified for the variables of race, community type, and Pell eligibility.

**Race.** The data revealed that 89.8% of applications within the data set were admitted in the year after the policy change with significant increases in admission for admitted students who are Black. At face value, the change in admissions policy increased admissibility for applicants following the increase in admissions standards. This finding was contrary to a similar Texas study, which found that increased admissions standards around grade point average and strict cut scores would significantly decrease access to admission for students of color and students from low socioeconomic status households (Black, Cortez & Lincove, 2016). Essentially, states that removed Affirmative Action admissions policies experienced profound decreases in minority enrollment following the policy change (Card & Krueger, 2005). Despite the differences in statistical outcomes, on race and admissions impact, the overall findings from each test provide context for admissions policies to consider the potential effects of changing criteria at the applicant and admissions stage. No disparate impact was found on the conditions of race in 2012, or between white students through the years of 2011 and 2012.

**Community Type.** Although a disparate impact was not established after the policy change, fewer students from the institution's community applied after the change, and fewer students were admitted. Overall, the institution is serving its mission by enrolling by community type. The vast majority of applicants in this study were from the community both before and after the policy change. In terms of the application stage, Turley (2009) supported the finding that a student's geographic location increases a student's odds of applying and enrolling. More students from the university's community applied to the institution. This study supports the importance of a college's proximity for students who continue to have a higher rate of applying to a four-year institution within their community (Do, 2004). While this study did not explore enrollment by community type, students are more likely to enroll in an institution close to their home (Rothenstein, 2004). Representing the overwhelming majority of applicants in the data set, students from the institution's community were more likely to be admitted than other students from other communities.

**Pell Eligibility.** In this study, students who were eligible for the Federal Pell Grant were more likely to be admitted after the policy change than students who were not Pell-eligible. Logically, a previous study determined an increase in tuition yielded a decrease in enrollment for traditionally disadvantaged students (Allen & Wolniak, 2019). In contrast, the results of this study revealed that Pell-eligible students were 16 times more likely to be admitted after the admissions policy change. The dramatic increase was an unanticipated finding on Pell-eligibility and impact after the policy change. This study's hypothesis was more aligned to similar research that hypothesized that students from lower socioeconomic backgrounds would be similarly disparately impacted from the more restrictive admissions criteria than students from non Pell-eligible households (Black, Cortez, & Lincove, 2016). Two related theories provide additional dimensions



to the study of socioeconomic status and college choice. First, previous scholars have leaned on theories of signaling to correlate increasing tuition costs and their impacts on decreasing enrollment by low socioeconomic students (Conger and Turner, 2015; Hemelt & Marcotte, 2011). The second trend of research on socioeconomic status and enrollment trends focuses on the theory of undermatching (Hoxby & Avery, 2013; Dillon & Smith, 2017). In each of these similar studies, that employ undermatching and signaling, trends suggest that implementation of restrictive policies would likely yield less Pell-eligible students who apply and are admitted. It is important to note that most of the research focuses on enrollment and graduation rates, following tuition increases and admissions policy change.

Applying theories of institutional signaling to the decision-making behavior of subgroups at the application level can provide meaningful data to institutions who serve an increasingly diverse group of college-bound students.

### **Unanticipated Findings after an Admissions Policy Change**

One possible explanation for the unanticipated findings is the decrease in applicants that were observed across the independent variables. The increased admits after the change in admissions policy is a possible shift in academic profile from applicants. In the year 2012, with the highest admit rate, the study was unable to examine the quality of the applicant pool in terms of grade point averages and standardized test scores. Using signals as a theory to describe application activity, the institutional messages conveyed to students, through policy change, may have also impacted the quality of the application pool. Similar studies suggest that higher-achieving students tend to make up the larger part of application pools when faced with selective admissions policies (Bound, Hershbein, Long, 2009). Data from this study suggests that higher achieving students applied and were admitted between in 2012. Building on the signaling theory,

not only did students self-select themselves out of applying, but lower academically profiled students likely did not apply. For example, this study determined that Black students have reduced odds of being admitted after the admissions policy changed to increased test scores; however, the change did not establish disparate impact. Despite having fewer applicants, and reduced odds of admissibility, the percentage of Black students admitted in 2012 increased when compared to Black applicants in 2011. Moreover, in 2012, the number of Black students who were admitted exceeded the number of Black students who were not admitted. The data hints that although fewer Black students applied, perhaps more qualified Black students applied to the university.

The findings from this study suggest that admissions criteria based on strict cut scores have the potential to improve college outcomes. Consequently, the policy impacts have problematic effects by potentially decreasing access by discouraging applicants from submitting applications. The statistical results developed from this quantitative case study are valuable to developing implications for researchers, policymakers, and college administrators.

### **Theoretical Implications**

Concerning theoretical implications, information can be drawn from this study to expand the Disparate Impact theoretical framework. Rooted in the legal discipline, the Disparate Impact evaluations tend to focus on the point of selection rate narrowly. Most Disparate Impact cases examine tests, admissibility, suspension rates, employment rates, and even scholarship awarding at the point of selection. This study expands the theory by suggesting Disparate Impact broaden the scope of examination to include factors prior to the point of selection rate. As previously stated, the year of the disparate impact analysis experienced significant declines in applications and even more substantial increases in admits. In turn, these dynamic shifts, prior to the point of selection, have linked consequences on the results of disparate impact examinations.

Examinations of disparate impact used selection rates, or percentages, to calculate disparate impact at the point of offering, or denying, admission. Historically, the selection of applicants is perceived to be the only enrollment stage where institutions were sole control of moving students through the admission process (Brown & Hirschman, 2006). As a result, the disparate impact calculations occur at a narrow point of selection rate without consideration of those who may have been removed from the selection step prior to the disparate impact evaluation. The notion of signaling encourages future scholars of disparate impact research to broaden their assessment of impact beyond the selection rate. Unique to this study, disparate impact does not capture the nuances of the three admission stages of application, admission, and enrollment. Central to the expansion of the Disparate Impact Theory for admissions cases is acknowledging that the probability of admission, at any institution, depends on the shifting dynamics through the complex enrollment process to access higher education (Alfonso & Calcagno, 2007). In this regard, the selection rate does depend and rely on the institutions and the policy; however, the decision to apply and the decision to enroll rests within the students.

One of the mitigating factors that cannot be controlled is the chance that students, or potential applicants, may have opted not to apply as a result of an announcement of increased test scores. Kirst and Venezia (2004) describe this indirect communication between institutions and students as signals. As a limitation of Disparate Impact, student's perceptions of admissions policies and the way they impact their behaviors is not within the scope of the analysis. Hossler and Gallagher (1987) assert there are multiple factors throughout the decision-making process for college. During the time Louisiana announced increased admissions test scores, the theory does not outline an established criterion to capture if students were deterred from applying in the case study. Similar to *Dothard v. Rawlinson* (1977), although a disparate impact was not statistically

established through the selection rate, courts took into consideration that women self-selected themselves out of participation in the employment process because of their interpretation of exclusion. Consider an employer who requires employees to take a written test for a promotion within the organization. Currently, the disparate impact theory does not consider employees who choose not to take a written test because the test has been known to favor other groups (while traditionally not selecting a protected group). In these cases, the theory must expand to understand the context of how individuals make decisions prior to selection rate. The Department of Justice maintains that the actual application process may not adequately reflect the actual potential applicant pool, since otherwise qualified people might be discouraged from applying because of a self-recognized inability to meet the very standards challenged as being discriminatory (USDOJ, 2018, p. 24).

Several external factors currently fall outside of the scope of the disparate impact analysis. When examining the complexities of access and race in education, these external factors are critical. As a result, the study can only analyze students who applied and completed the admissions process. The study is not able to capture those students who did not apply, the number of students graduating, or consideration of applications at peer institutions. Each of these are a fraction of external factors that could impact applications at an institution. As a starting point, it is not uncommon for studies on college access and equity to ground their examination within the broader societal context (Freeman, 1997; Villalpando & Solorzano, 2005). Furthermore, in the context of demographic changes, the historical landscape of race and higher education is critical to understand when analyzing access (Kurlaender & Flores-Montgomery, 2005). Studies that apply broader narratives as a lens often draw scholarly linkages between context, policy, and the subsequent inequitable outcomes. Much like the racial academic achievement gap is a byproduct

of special education tracking, standardized testing, access to AP courses, and disproportionate suspension rates (Darling-Hammond, 2010), this study suggests that examining race, access and admission at institutions similarly include the compounding impacts of inequity in their analysis of disparate impact. In some cases, the aforementioned factors on academic achievement may be aligned with, or an extension of, disparate impact evaluations.

The notion of broadening where disparate impact begins has extended to an even broader arena. A similar educational disparate impact case, *African American Legal Defense Fund, Inc v. New York State Department of Education* (1998), considered societal, political, and economic factors as the cause for disparity rather than the policy. Even broader, disparate impact scholars often identify structural discrimination where achievement gaps have been impacted by an accumulation of societal factors (Gulati & Wilkins, 1996). Specifically, in education, achievement gaps for disparate impact often discuss the cumulative effects of socioeconomic status disparities, health care opportunities, transportation access, school funding distribution, and even housing as inequitable for traditionally marginalized populations before the point of disparate impact examination (Albertson, 2013; Valian, 1998; Gulati & Wilkins, 1996; Lawrence, 1987). More notable, Krieger's (1995) seminal research intersects law and psychology to describe the evolution of subtle discrimination and the ways discrimination may unintentionally manifest throughout institutional structures such as policy development. Similar to these studies, the findings from this research lends credence to acknowledging the social, political, and environmental context in which the disparate impact is being examined.

While this study did not examine disparate impact at all levels, the findings suggest there is compelling evidence to evaluate factors beyond the point of the disparate impact selection rate. This study emphasizes a dynamic shift in population that was potentially, indirectly, and subtly

caused by the change in policy. Broadening the context should tailor the factors by academic discipline based on areas that involve subjects participating in the selection process. For admissions disparate impact cases, the findings from this study provide a lens to examine the importance of each step in the admissions process of application interest, admission and enrollment, and the interrelated dynamics at each level. More specifically, cases should take into consideration the way institutions send signals and communicate meaning to applicants. The scholarly implications suggest that disparate impact scholars broaden their lens and statistical tools to include social and institutional contexts that may impact participation before the point of selection.

### **Implications for Policy and Practice**

This study yielded findings that have implications concerning policy and practice at urban, public universities. The first implication for policy is at the macro-level to inform the policymakers who set admissions policies at institutions. Given the uniqueness of each institution (location, mission, history, goals, and population), autonomy of admissions standards should be developed and tailored by each institution. This paradigmatic shift suggests that state-wide governing boards transfer autonomy of admissions policies to the institution. Consequently, institutions must grasp the concept of enrollment management to support their missions, understand the context of their educational landscape, and meet institutional enrollment goals. The second implication is at the micro-level and suggests institutions lessen the importance of standardized test scores in their admissions process by removing strict cut scores and traditional threshold admissions criteria.

### **Institutional Autonomy through Enrollment Management**

Often, public institutions must adhere to the admissions policies set by the state laws of one overarching governing board (Quann, 1979). Similarly, the urban public institution in this case

study was part of a state-wide governing board that sets the admission policy for nine unique institutions. Birnbaum (1991) asserted that this increased governance by states tends to be the primary force that limits autonomy for organizations. The institutional uniqueness exerted by this study suggests that the process for admission policy development may be best conducted at the institutional level, rather than state governing boards. Among the biggest challenges for public universities to achieve equity in access is their limitations and constraints caused by admissions policy (Black, Cortes, Lincove, 2016). The implementation of statewide admissions policies remove the ability to conceptualize the unique external factors that relate specifically to each institution. Simply put, “what works at one school may not work at another” due to the unique mission and context of each institution (Dennis, 1998, p.10). Determining the factors that impact admissions and access requires policymakers to consider a variety of data points, in unique and different contexts, for each institution.

Rather than support one governing board for many institutions, this study provides enough unique factors, in context, to consider support for institution-specific governing boards. NACAC (2008) supported this approach to shifting from broad sweeping use of testing when they stated, a "one-size fits all" approach for the use of standardized tests in undergraduate admission does not reflect the realities facing our nation's many and varied colleges and universities” (pg. 7). The realities include criticisms of standardized test scores, changing demographics, and most importantly, the unique missions of each institution. In the context of urban public universities, policy development “must recognize the nontraditional nature of the student body and the diversity of the urban setting. (Barnett & Phares, 1995, p.4). The indirect findings from the data call to question if state-wide boards can effectively govern the admissions and enrollment needs of each institution in a system. Grasping the educational landscape of an institution to set approach policy

development is a complex and nuanced process that is best addressed with autonomy at the institutional level. To ensure institutional vitality, institutions must be able to respond to the economic, social, and political landscapes to ensure institutional longevity (Birnbaum, 1991). Since these environmental landscapes vary by institution, policies impacting admissions should also vary by the institution as the landscape oftentimes looks different for urban, public universities. To effectively respond to an increasingly evolving and competitive landscape, institutions must have the autonomy to develop their admissions and enrollment policies to remain agile.

Developing policy for admissions requires that policymakers acknowledge that the process of applying and enrolling is a social exercise based on human behavior from a diverse array of students (Thresher, 1966). Admissions policy implementation is vital due to its direct correlation to impact diversity on campuses and their abilities to serve the changing demographics of students applying to college (Alfonso & Calcagno, 2007). Many institutions have navigated the admissions landscape at the institutional level by implementing units or personnel around enrollment management initiatives. Enrollment Management refers to the efforts that “influence the characteristics and the size of enrolled student bodies by directing the activities of the offices of admissions, financial aid, new-student orientation, career planning, retention, and several other student affairs departments” to remove any anomalies caused by one-year of admissions application and admitted data (Hossler & Bean, 1990, p.xiv). Of unique concern is that the state experienced an increase in high school graduates and applicants to the institution; however, 55% enrolled in 2011 compared to the 31.5% who enrolled in 2018. These are unique concerns that must be addressed at the institutional-level. This study confirmed the achievement and completion gap is less a result of declining interest to go on to college, or a lack of high school graduates.



Instead, data implies a lack of clearly articulated signals concerning admissions requirements led to a decline in admissions applications (Schneider, 2003). Enrollment management units at the institutional-level are uniquely positioned to address similar concerns.

As an umbrella term, enrollment management encompasses the multiple aspects of the admissions process at the institutional level. Regarding institutional goals and policy change, admissions policy development is navigated through a broader enrollment lens that embraces admissions from the point of recruitment, selection, and enrollment through graduation (Donhardt, 1995; Bateman & Spruill, 1995; and Copeland, 2009). A key concern is an increase in applications from 2011 to 2018, followed by the fluctuating admit rate, and a decrease in enrollment throughout the time period. This study found that more students are graduating from Louisiana high schools, applying to college at higher rates, going to college at higher rates. Yet, enrollment continues to remain stagnant or decline year-to-year. To address this incongruence, enrollment managers provide a systems approach lens to observe the interconnectedness of each admissions stage. At the institutional level, institutions are better positioned to assess and respond to their environments, by aligning their policies within the context, while maintaining their unique identities (Dennis, 1998).

Data implications suggest if policymakers and college administrators want to improve retention and graduation rates through admissions policies, they should concentrate on understanding the unique geographic, sociological, and psychological factors that influence students' decision-making process on an institutional level. Policy makers can achieve this by analyzing high school graduation trends, calculating college-going rates, acknowledging that institutions communicate meaning through policies, understanding the unique mission and history of each institution, and conceptualizing how location impacts the uniqueness of an institution for

the development of policies. Quann (1979) acknowledged that the autonomy of admissions policies strategically positions institutions to manage the diversity of their campuses. Best practices illustrate that enrollment managers have been positioned to navigate these educational landscapes to achieve institutional goals.

This case study demonstrated when institutions are limited in ability to control and develop their own admissions policies, there are still recommendations that institutional leaders can glean when admissions policies shift. Related to signaling, campus presidents have evidence to embrace creative changes at the intersection of enrollment management, marketing, and community outreach. In 2016, the institution announced a new campus leader (About the President, 2020). In the subsequent years of 2017 and 2018, first-time freshman enrollment increased to 544 respectively. The change represented the second highest in the data set which placed incoming student enrollment to numbers prior to the admissions change. During this time, the increase in enrollment was attributed to increased outreach efforts such as rebranding to a broader reach of students, segmented communication to targeted subgroups of students, and increased touchpoints through enhanced advising (Thompson, 2018). Institutions who have also faced restrictions under shifting admissions policies have similarly recommended increased outreach to navigate around perceived admissions barriers. Following their admissions policy shift, The University of California Outreach Task Force (1997) suggests institutions ramp up student centered outreach, informational outreach, academic development in communities, and university evaluation. Parallel to these recommendations, the University of New Orleans announced a pledge to meet the needs of students in their local community. At the time of this study, changed the narrative on signaling changed for students in Orleans Parish. The pledge made a four-year education more accessible and affordable for students who graduate from a local, urban school (public or private), are

admitted to the institution, and are Pell-eligible with a household income less than \$60,000 (UNO Privateer Pledge, 2020). As a major signal to the community, the University of New Orleans has presented a tangible recommendation for outreach that campus leaders can implement to create access to urban, public institutions.

In summary, research analyzing state-wide policies correlate the impact of policy changes with enrollment at higher education institutions (Perna & Titus, 2004). With such high stakes, a recommended best practice is to shift the management of enrollment-related policies from state-wide governing boards, to the institutional level. Essentially, policy impacts participation. The outcomes of institutional autonomy in policy development may improve outcomes for enrollment at institutions as well as access to students from traditionally disadvantaged backgrounds. The longitudinal downward enrollment trend, observed in this study, suggests the success of institutions is dependent on a university's ability to remain agile through autonomy to respond to external forces that impact enrollment.

### **Threshold Admissions Criteria**

A primary finding from this study is acknowledging that policy impacts whether a student participates in the admissions process at institutions. As such, institutions have a responsibility to review their current practices involving standardized testing in the admissions process. Additionally, as institutions continue to over-rely on standardized test scores, they continue to jeopardize access and inclusion in higher education for traditionally underrepresented populations (Bowen & Bok, 1998). As an alternative, and a recommendation for practice, more colleges and universities have adopted an evaluation policy that places an emphasis on non-cognitive measures over threshold admissions criteria. The National Association of College Admission Counseling (2009) encouraged colleges to consider using alternative methods to evaluate a student's

preparation level aside from just standardized test scores (Sommerfeld, 2011). Factors such as a student's class rank and high school academic performance have consistently been shown to be better predictors of college success over standardized test scores (Perez, 2002). More specifically, the high school GPA, when combined with a college preparatory curriculum, has stronger correlations to collegiate academic success than standardized test scores (Atkinson & Geiser, 2009; Geiser & Studley, 2003). For some students, the process of going to college presents additional barriers and obstacles that can create inequitable outcomes in critical processes of admissions. By simply adjusting admissions policies from threshold admissions criteria, and strict cut use of test scores, this study has shown significant progress can be made toward removing obstacles and engaging traditionally underrepresented populations.

As admissions standards change, it is the recommendation that institutional policies adapt, at a minimum, to consider holistic admissions policies. This would require a shift from strictly relying on standardized test scores, but also making room for an evaluation of non-cognitive factors. According to Sedlacek (1993), "numerous studies provide strong evidence that non-cognitive measures predict the success of nontraditional students better than traditional measures" (p.1). The success of evaluating non-cognitive factors have been validated by evaluating not only first-year grades (Sedlacek, 1991) but also retention (Fairtest, 1998; Hoover, 2013; Sedlacek, 2017; Sedlacek & Tracey, 1991) and graduation rates. The review of non-cognitive factors has been widely used as institutional policies across the country at several universities due to their ability to better predict college readiness on standardized test scores.

It is evident that policy changes must be put in place to prepare for the shifting demographics of students applying to college. Aims at changing how standardized testing is used

in the admissions process can have significant impacts on access and should be explored by educational stakeholders.

### **Limitations and Delimitations**

Limitations refer to “restrictions in the study over which the researcher has no control” (Newton & Rudestam, 2007, p.105). Alternatively, delimitations are decisions the researcher made in the infrastructure development of the study. Two significant limitations impacted the data analysis for this study. The most important limitation was the inability to receive the full data set of applicants and admits to the institutions from 2007 to 2016. Due to data integrity issues, the Office of Institutional Research was unable to access and provide the requested data for the years prior to 2011. The proposed research design intended to study admission trends before the policy change, the first cohort was intended to include applicants and admitted students in the years 2007 to 2011. This data set construction was to provide a detailed analysis beyond one year prior to 2012. Comparatively, the second cohort involved applicants and admits from 2012 to 2012 to 2016 represent those who applied under the new, increased admissions standards from the years 2012 – 2016. Providing two cohorts of five-year cohorts would have allowed for the removal of any anomalies caused by one-year of admissions application and admitted data. In lieu of the data from 2007 to 2016, the institution provided an additional two years of admission data for 2017 and 2018, while also including the enrolled data for each year between 2011 and 2018.

The process of changing admissions requirements is often an internal process that is not published or shared publicly. As a de facto limitation, research on changing admissions standards is often limited to states where Affirmative Action has impacted a shift admissions policy. Predominantly, these studies are based in the states of California and Texas, where the literature review highlighted these states as consistent battleground states for race-based admissions policies

(Horn & Flores, 2003; Long, 2015; Long & Tienda, 2008; University of California, 2008). Exceptions to the publishing of admissions policies are often rooted in institutions adopting flexible standardized testing admissions policies. Whether it is test-optional, moving toward holistic admissions, or super scoring, rarely do institutions publicize an increase in test scores or using a high threshold of standardized test scores in their review process. Consequently, research is limited outside of these areas to support how admissions policies impact populations and provide context to expand recommendations for future research.

Delimitations refer to the conditions and choices by the researcher that may limit the boundaries of a study (Simon, 2011). As a delimitation in the data set, the number of students in the state of Louisiana taking the ACT increased. In 2013, all students were required to take the standardized test as part of their graduation requirement. With an increased emphasis on the ACT standardized test score in Louisiana, this study primarily focused on the ACT for context as opposed to SAT. Additionally, more test takers in the data set from 2013 to 2018 may have impacted test score average and application activity in those years.

In variable selection, the researcher narrowed the scope of race to two specific races. The data set provided data for 9 races and ethnicities at the stages of application, admission, and enrollment. Those nine are Black, Asian, Hispanic, International, Native American, Pacific/Islander/Hawaii, two or more races, unknown, and White. Given the demographic population of the state, the city, and the secondary schools, it was critical to limit the bounds to two races. With regard to the historical narrative of the Black population and access, in the context of legal segregation, the researcher limited the scope to specifically focus on Black students and their experiences in the admissions process.

## **Recommendations for Future Research**

With regards to future research, a common characteristic of any case study design is its transferability to similar contexts (Barnes, Conrad, Demont-Heinrich, Graziano, Kowalski, Neufeld, Zamora, Palmquist, 2012). The model from this study can be used to examine disparate impact for race and community at any institutions, especially urban, public universities.

Second, an increase in standardized test scores to impact retention and graduation rates provides a logical progression to examine if the intended outcomes were achieved. For an increase in the year 2012, would suggest a higher retention rate for first-year students in 2013. Subsequently, the first cohort under the new admissions policy would appear in the 4-year graduation rate in 2016 and a six-year graduation data set for 2018. In regards to institutional control of their unique contexts, admissions offices should have on-going evaluations in place to explore correlations between enrolled students and academic success in college (Toomajian, 1981). Data from the impacts on the student experience can be used to further inform the development of admissions policies and challenge institutions to examine their academic environments.

Third, future research could disaggregate the data to uncover the nuances associated with the intersections of variables. By observing applicants with each variable, researchers can capture the intersections of race, gender, community type, and socioeconomic status. For example, are there differences in admission rates for a Pell-eligible, male student, who is White when compared to non Pell-eligible female student who is Black? Strayhorn (2016) asserts that Black males continue to be underrepresented at urban, public institutions. As another example, educational attainment gaps have also been noted at the intersections of race and socioeconomic status (Belley & Lochner 2007). Tailoring an analysis to examine intersections of identity through the process

will better inform educational scholars and policymakers of more narrow segments of populations. This data can be used to capture a firmer understanding of how students navigate the application process and interact with the institution.

Finally, broadening the scope of disparate impact, the addition of the high school context variable will provide another element to examine disparate impact. More specifically, the control type of public high school compared to public high schools. In addition to gender, socioeconomic status, community type, and race, scholars maintain that where a student attends high school, among other factors, impact a student's college choice process (Fann 2002; Hossler, Braxton, & Coopersmith, 1989; Perna, et, al 2008; Smith & Fleming, 2006; Tierney & Auerbach, 2005).

### **In Closing**

Acknowledging that admitting higher academically students results in increased graduation rates, governing boards are implementing admissions policies that utilize increased standardized test scores as a metric for admissions (Pascarella & Terenzini, 1991). These policies have been implemented despite the mounting criticism surrounding standardized testing, which includes research that suggests students of color are disparately impacted by threshold standardized test score requirements. Furthermore, public colleges tend to place a higher emphasis on standardized test scores in their evaluations for an admissions decision. With more diverse students and more college-bound students applying to colleges each year, it is vital for policies to evolve to meet the changing needs of students seeking admission (National Association for College Admissions Counseling, 2019; Western Interstate Commission for Higher Education, 2000). Higher education institutions should recognize there is a new emerging demographic arriving at institutions and prepare to design alternative ways for accurately assessing their levels of preparedness for college. Progress toward this goal can be achieved by ensuring that policies and practices lessen the



importance of standardized tests, such as test-optional, can be implemented. This study found that the starting point for understanding admission must first consider broader societal issues in context.

The most significant finding from this study is understanding the ways institutions signal and communicate meaning to applicants through the implementation of their admissions and financial aid policies. There is a relationship between policy change and application activity at institutions, particularly changes surrounding standardized test scores. Consistently, the process of changing admissions policies has an impact on who applies and where (or if at all). When admissions policies are not approached from an equity and access standpoint, declines in minority and traditionally underrepresented student applications simultaneously occur (Long & Tienda, 2008). By determining that policy impacts participation, this quantitative case study provides valuable information for policymakers, educational leaders, and disparate impact scholars to use in the examination of admission impact.

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## Appendix A

### Appendix A: Louisiana and Orleans High School Graduates from 2011 to 2018

Year	Site Name	College Attendance after HS Grad			
		Total High School Graduates	%	Orleans Parish	
2010-2011	Louisiana Statewide	35,894	55%	Orleans Parish	1,137.00
2011-2012	Louisiana Statewide	36,705	56%	Orleans Parish	1,137.00
2012-2013	Louisiana Statewide	37,655	58 %	Orleans Parish	1,113.00
2013-2014	Louisiana Statewide	38,785	59 %	Orleans Parish	1,117.00
2014-2015	Louisiana Statewide	38,224	58 %	Orleans Parish	2,044.00
2015-2016	Louisiana Statewide	40,031	58%	Orleans Parish	2,344.00
2016-2017	Louisiana Statewide	40735	58%	Orleans Parish	2,438.00
2017-2018	Louisiana Statewide	43707	57.00%	Orleans Parish	2,554.00

## Appendix B

### Appendix B: Institutional Review Board Approval

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**University Committee for the Protection  
of Human Subjects in Research  
University of New Orleans**

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*Campus Correspondence*

Principal Investigator: Christopher Broadhurst  
Co-Principal Investigator: Carlos Gooden  
Date: May 10, 2019  
Protocol Title: Impact of Increased Admission Standards  
IRB#: 01May19

The IRB has deemed that the research and procedures of the above-named protocol are compliant with the University of New Orleans and federal guidelines and meets the standard for being exempt from further IRB review according to:

*CFR 46.104 (d)(2): Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) and at least one of the following criteria is met:*

- (i) *The information obtained is recorded by the investigator in such a manner that the identity of the human subjects cannot readily be ascertained, directly or through identifiers linked to the subjects;*
- (ii) *Any disclosure of the human subjects' responses outside the research would not reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, educational advancement, or reputation; or*

Researchers maintain the responsibility for ethical research practices in exempt research. Any changes to the procedures or protocols that change the eligibility of the study for exemption must be reviewed and approved by the IRB prior to implementation.

I wish you much success with your research project. If you any questions, please do not hesitate to contact me at 280-7386.

Sincerely,



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Ann O'Hanlon, Chair  
UNO Committee for the Protection of Human Subjects in Research

## VITA

Carlos A. Gooden was born in Cincinnati, Ohio. He earned his Bachelor's degree in Communication with a concentration in Public Relations from The University of Toledo in 2008, and a Master's degree in Higher Education in 2010. Carlos is currently the Director of Student Recruitment at the University of Chicago Booth School of Business. Prior to his work at Chicago Booth's Full-Time MBA Admissions, he served as a Senior Associate Director of Admissions for Xavier University of Louisiana where he was a strong advocate for Historically Black Colleges and Universities. In his career, Carlos has held a number of leadership and administrative roles at urban, public institutions related to enrollment strategy, marketing, diversity recruitment, and orientation. His research interests surround urban educational leadership and admissions policies.