IMPACT OF IMPLICIT RACIAL BIAS ON STUDENTS OF AFRICAN DESCENT IN PREDOMINATELY WHITE INSTITUTIONS

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by
Edwin Mathieu

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Edwin Mathieu	Dr. Joan Birringer-Haig

ABSTRACT

IMPACT OF IMPLICIT RACIAL BIAS ON STUDENTS OF AFRICAN DESCENT IN PREDOMINATELY WHITE INSTITUTIONS

Edwin Mathieu

This study investigated how implicit racial bias influences the perceptions of students of African descent in predominately White colleges (PWIs) in the United States (U.S.). The theoretical framework for the study is critical race theory (CRT). CRT challenges racial indifference by exposing how racial advances often come at the cost of promoting or feeding into White self-interests (Patton et al., 2007). This non-experimental quantitative study examined how GPA, the number of credits earned, gender, race, and campus culture impact students of African descent's perceptions of culturally implicit racial bias. It used Asian, Hispanic, and White students as a comparison group. Implicit racial bias is a suggestive and sometimes unconscious slight leveled against minoritized groups. The study examined three academic institutions in a large metropolitan area in the northeastern U.S. The researcher created an instrument called the *Implicit Racial Bias Higher Ed Questionnaire* (IRBHEQ), specifically targeting and quantifying perceptions of implicit bias among students of African descent. The research employed a series of ANOVA and Regression tests. The statistically significant results indicated that the more heightened a student's perception scores of implicit racial bias, the higher their GPA. These findings also suggest that students who identified as Other in the gender category had higher perception scores. The implications

of the study were that colleges and universities should employ an asset-based approach to education and provide professional development for faculty, staff, and students.

DEDICATION

This dissertation is dedicated to my parents and grandparents, whose steadfast support and prayers kept me going during this journey.

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CHAPTER 1 INTRODUCTION

Implicit racial bias touches the lives of students of African descent in the United States (U.S.) and on college campuses. It involves instinctive or deeply engrained beliefs about certain racial or ethnic groups that affect how individuals respond to the targeted group (Applebaum, 2019). Students of African descent remain isolated and marginalized (Kavanaugh, 2019), which may impact their perceptions of the post-secondary institutions they attend. An analysis conducted by the Kirwan Institute for the Study of Race and Ethnicity (2015) defined implicit bias as attitudes or stereotypes deep in the subconscious that unconsciously affect our understanding, actions, and decisions (Staats et al., 2015). The expression of implicit bias is difficult to conceal or manipulate because it is measured using performance on cognitive tests, not based on self-report (Payne et al., 2019). According to Griffin et al. (2016), students of African descent report more visible and perceived incidences of racism on college and university campuses than their White peers, making perceptions of implicit racial bias a key area for research. This is made worse because race was the motivating factor behind 55 percent of all reported hate crimes (314 incidents) at postsecondary institutions in the U.S. (National Center for Education Statistics, 2023).

Black and students of African descent are used interchangeably in the literature discussed in this study. PWI (predominantly White institutions) is purely descriptive and primarily focused on demographic or individual-level student racial characteristics (Corces-Zimmerman et al., 2021). Understanding the subject of implicit racial bias is a step toward implementing an institutional culture that ensures that predominately White institutions (PWIs) serve students equitably in the U.S.

Spelman College, an all-female historically Black college and university (HBCU), is an example of an institution that employs an asset-based approach to help students from the Black community thrive and feel a sense of belonging. An asset-based approach embodies a growth mindset in teaching, grounded in what students can do rather than what they cannot do or areas of weakness (Lalor, 2022). This relationship-driven strategy focuses on students' needs and develops strategies to empower them to address difficulties (Ebersohn & Eloff, 2006). Asset-based pedagogies provide counter-narratives to hegemonic and Eurocentric teaching and learning (Flint & Jaggers, 2021).

As a result of this pedagogical approach, Spelman's graduation rate of 76 percent is the highest among all HBCUs and above the national graduation rate of 44 percent for African American students (spelman.edu, n.d.). The college is one of the United States' leading producers of Black female medical students and doctoral candidates in science, technology, engineering, and mathematics (spelman.edu, n.d.). Spelman developed a culture that embraces, celebrates, and encourages students to aspire toward their goals and reminds them that they are assets (Winkle-Wagner et al., 2020).

School culture is the historically transmitted patterns that affect every facet of a school system and touch every community member (Brooks & Normore, 2018). The U.S. educational system is a subsystem of components that promotes the culture of the White majority who have access to resources, such as the perceived value of education, teacher and professor preparation, and the importance of credentials and degrees (Fox, 2020). It grew out of a racially segregated society, which makes instituting a culture of inclusiveness and equity complex. This, coupled with the fact that images created of Black men in our society often confine them to environments shaped by drugs, crime,

athletics, and academic failure (Harper & Davis, 2012), makes it hard for higher education officials to advocate for students of African descent the same way they would for White students. It is difficult to nurture students to be well-rounded when some school leaders and teachers have unsubstantiated, unquestioned, and inaccurate thoughts and beliefs about Black people (Harper & Davis, 2012). Long after explicit legal obstacles were eliminated, the historical legacy of bigotry has produced structural inequities that continue to evoke stereotypical associations towards Black people (Payne et al., 2019). Implicit racial bias functions in such a manner that students of African descent are more likely to be viewed as criminals by the public and police (Russell-Brown, 2018).

Decision-makers at predominately White institutions (PWIs) are primarily White; even if they favor a more egalitarian system, they benefit from the current racialized system (Stewart et al., 2012). Leaders, administrators, faculty, and students in academia seldom recognize how Eurocentric structural and normative privileges are the foundation for institutional and cultural power structures that distribute resources based on race (Mitchell et al., 2012). Culture is the integrated system of beliefs, traditions, customs, values, products, technologies, and ideas that make up people's life; it is humanity's way of making sense of the world (Bernard, 2016). Higher education institutions should recognize how they implicitly and complicity uphold practices that structurally, politically, and culturally privilege Whiteness and influence admissions, faculty advising, and racially unfriendly campus environments (2021). Many institutions are bastions of White Christian privilege and culture, which includes having academic calendars arranged around major Christian holidays and seeing public representations of

Christianity, such as Christmas trees on campus (Guido et al., 2016). When schools do a poor job of educating their Black students, this benefits Whites because it unjustly advantages them in the competition for higher levels of education and employment (Blum, 2008).

Future leaders will benefit from developing multicultural interactions because they will understand the world better and be less likely to treat non-Whites and Black people as foreigners or minorities. Colleges and universities can utilize conversations about implicit racial bias, campus racial climate, and culturally relevant curriculums and pedagogy to create race-conscious programs that address and dispel prevailing negative stereotypes about students of African descent (Franklin, 2016). Academic institutions, for example, continue to battle issues such as racially inappropriate costume parties and charges of reverse discrimination by White individuals, keeping race and racism at the forefront of public debate (Guido et al., 2016). White administrators, faculty, staff, and students are reluctant to incorporate Black values, interests, or history into their core culture at many PWIs, where activities reflect White interests and traditions (Feagin & Sikes, 1995).

According to Thornhill (2019), all whites benefit to varying degrees from their privileged position in the racial hierarchy, even if they do not actively engage in racist practices that sustain this system. One explanation for this is that the structure of today's academic institutions harkens back to a time when most people in power in the U.S. were White males, and students were required to adhere to Judeo-Christian and Eurocentric beliefs.

Implicit racial bias against students of African descent impacts student-faculty mentorship, grades, and discipline. Accessing higher education remains difficult for Black students, particularly at four-year colleges (St. Amour, 2020). Stereotypes often inform how college and university leaders admit, treat, and view students of African descent (Godsil & Goodale, 2013). In PWIs, students of African descent cluster together as a form of protection, enabling them to gain validation, resist stereotypes, and develop culturally affirming identities (Jayakumar, 2019) and communities.

Today's higher education leaders should support culturally proficient practices and policies in their schools because shifting demographics across the U.S. make conventional thinking in colleges and universities unsustainable (Magdaleno, 2013). Higher education institutions need to address the historical legacy of exclusion that has influenced the racial climate on campuses and the admissions and retention of students of color (2019). The dominant language, literacy, and cultural practices demanded by schools align with White, middle-class norms and position languages and literacies outside those norms as unworthy of a place in U.S. schools and society (Paris, 2012). Integrating minoritized groups into well-established institutions and traditions is not an easy task. Still, through open dialogue over time, the student body and administration can actualize a culture where everyone feels a sense of belonging.

The current study examined how implicit racial bias impacts Black students' experience in predominately White institutions (PWIs). The study centers on PWIs and excludes historically Black colleges and universities (HBCUs). If the curricula and pedagogy in most post-secondary schools were culturally responsive and aligned with Black students' educational needs, they would acquire literacy and mathematical skills

closer to their White counterparts (Harper & Davis, 2012). If colleges and universities do not encourage access to diverse curricula and inclusion of all students, staff, and faculty, campus climates may exacerbate academic and social disparities, inequities, or injustices (Lewis & Shah, 2019; Telles & Mitchell, 2018).

Students of African descent are not a part of the White majority culture, and they may have difficulties at PWIs because educators infuse White culture into education rather than educating into Black culture (Pewewardy, 1993). Rather than focusing on what is wrong with students of African descent, educators need to reflect on what is right with them and what happened in the classrooms of those instructors who had pedagogical success (Ladson-Billings, 2014). PWIs should accept and include students of African descent's perspectives and cultural beliefs in their curriculums and pedagogy to increase diversity. Although structural diversity increases the probability that students will encounter others of diverse backgrounds, given the history of race relations in the United States, simply attending an ethnically diverse college does not guarantee that students will have meaningful intergroup interactions (Gurin et al., 2002). However, higher education administrators and faculty members can substantially change practices and policies to create more inclusive campus cultures at their colleges and universities.

PWIs need to promote varying points of view and beliefs by creating safe spaces for all constituents, including immigrants, to achieve this goal. In this sense, safety is protection from psychological or emotional harm (Holley & Steiner, 2005). PWIs may integrate students of African descent's culture into the classroom by using culturally competent strategies to help them understand their own cultures while learning about at least one other (Ladson-Billings, 2014). Critical race theory (CRT) analysis can assist

researchers in examining teachers' interactions with Black students and providing a more sophisticated assessment of what occurs in these learning environments (Chapman, 2007). In addition to works by established social theorists, Ladson-Billings (2014) recommends that instructors include readings of what would be considered alternative literature, such as hip-hop lyrics, videos of hip-hop musicians, and 1960s-era protest poetry. Faculty should think about fostering a culture of respect, inclusivity, and encouragement for intellectual curiosity through course assignments, resources, lectures, and events to enhance the academic climate on campus (Mills, 2021). Through various teaching methodologies and multicultural curricula (study of African history), post-secondary institutions can legitimize Black students' culture and bridge the gap between the academy and community.

For institutional leaders, faculty, and staff, understanding the Black experience is necessary for a culturally competent curriculum (Enyeart et al., 2017). Culturally responsive teaching is an intrinsic aspect of education that places diverse cultures alongside middle-class mainstream macro cultures at the heart of the classroom teaching paradigm and affirms that culture influences students' learning (Pewewardy, 1998). According to the National Center for Education Statistics (2021), the college enrollment rate of high school completers in 2019 was 69% White, 57% Black, 64% Hispanic, and 82% Asian. In 2016, Black college graduates averaged $34,630 in cumulative debt, the highest among degree completers, compared with $27,000 for Hispanics and $25,920 for Asians (2019, p. 110). According to Cahalan et al. (2019), by 2017, Blacks aged 18 to 24 in the U.S. received 11 percent of bachelor's degrees (79 percent of parity), although still underrepresented relative to their representation of 14 percent in the population (p.

133). As the cultural landscape of American classrooms shifts, embracing CRT and culturally competent teaching techniques fulfills the needs of post-secondary students.

Purpose of the Study

The purpose of this non-experimental quantitative study was to examine how students' gender, and racial-ethnic background impacted their perceptions of culturally implicit racial bias at three private PWIs in a large urban city in the northeastern United States. It also correlated the undergraduate GPAs (Grade Point Average), the number of credits earned, and the perception scores of implicit racial bias. The researcher's dependent variables were GPA, the number of credits earned, campus culture, and the perception scores from the *Implicit Racial Bias Higher Education Questionnaire* (IRBHEQ). The researcher employed a series of regression and ANOVA analyses to examine the influences of the independent variables (survey scores, gender, and racial-ethnic identity) on the dependent variables (grade point average, credits earned, perceptions of implicit racial bias, and campus culture).

The findings of this study offer recommendations and quantifiable data to college and university administrators by illustrating the necessity of providing students of African descent with a holistic experience and fostering a sense of belonging. An integrated approach to teaching and learning enables Black students to develop critical knowledge, a global perspective, and marketable skill sets necessary to achieve their professional goals and provide leadership and service to their communities in the digital age. This study also contributes to a better understanding of using a critical race theoretical framework to dissect the problem of implicit racial bias in post-secondary institutions in the U.S.

Examining implicit racial bias is critical because it suggests that well-intentioned instructors may be vulnerable to less conscious preferences, restricting their ability to promote racial justice despite their best intentions (Starck et al., 2020). The current study addressed the shortcomings in the existing literature by asking participants direct questions regarding their beliefs of implicit racial bias. This research broadens the conversation by exploring additional factors that may lead to lower GPAs for students of African descent. The researcher sought to learn how students perceive their post-secondary institution, faculty, programs, and behavior that may symbolize implicit racial bias.

The current research also informs the experiences of students of African descent in academia by recognizing the negative interactions' impact on their perceptions of implicit racial bias and the benefits of race-conscious engagement for students, faculty, and administrators. Race-conscious engagement accepts institutional responsibility for Black students' success and acknowledges qualitative disparities in their experiences, especially when same-race mentors are in short supply (Harper, 2009). Race-conscious educators recognize that the underrepresentation of minority groups on campuses necessitates a significant institutional effort to make classrooms equitable and inclusive (Harper, 2009).

Theoretical Framework

Critical Race Theory

After reviewing relevant literature, the theoretical framework that aligns with the research questions is Critical Race Theory (CRT). CRT can help school leaders examine campus climate efforts and produce culturally competent and diverse staff, faculty, and

administrators while increasing the number of underrepresented students enrolled (Hiraldo, 2010). CRT is a framework and methodology that helps confront race neutrality in theory and practice, acknowledge the value of the Black voice, and examine the racism in American society that privileges Whiteness while disadvantaging Blackness (Hylton, 2008). CRT asserts that historical patterns of racism persist in our educational, legal, and social systems, creating an uneven playing field for people of African descent in the United States.

A critical race perspective entails recognizing that racism shapes our society and the importance of challenging racial indifference by exposing how racial advances often come at the cost of promoting or feeding into White self-interests (Patton et al., 2007). Yosso (2005) affirms that looking at education from a critical race theoretical approach involves a commitment to developing schools that acknowledge the strengths of non-Whites to advance social and racial justice. CRT is a theoretical framework that can help us examine and reflect on the racial disparities in higher education. Implicit racial bias causes a vicious cycle of inequity that negatively impacts Black students' perceptions, experiences, and academic and social performance.

For students to compete and be successful in the 21st century, they must understand the perspectives of people of all racial backgrounds. Rather than providing an opportunity to even the playing field, educational policies and practices have amplified pre-existing disparities (Suárez-Orozco et al., 2015). To study the topic of implicit bias, researchers should realize that it is rooted in the United States' historical foundation, from slavery to racial segregation. Slavery shaped American institutions, economies, and

culture for generations following the Civil War and emancipation in the U.S. (Payne et al., 2019).

Conceptual Framework

The conceptual framework outlined in Figure 1 illustrates how implicit racial bias perpetrated by faculty, administrators, and staff impacts students of African descent in post-secondary institutions. The framework examines how history, culture, and policies affect implicit racial bias in post-secondary institutions. In the U.S., racism originated from the institution of chattel slavery and a history of Black inferiority established by law which the government at all levels frequently enforced; when it did not, it was tolerated and encouraged (Sedler, 1979).

Since its founding in 1776, the U.S. has associated dark skin with enslavement and inferiority through strategic and fabricated mechanisms (Lavalley & Johnson, 2022). The term White came into existence to favor people of European descent while barring non-Europeans from upward social mobility. The White power structure established a caste-like system that persists across the history of the United States and embedded race into every economic, social, political, scientific, judicial, healthcare, and religious system (Lavalley & Johnson, 2022).

Reflecting on how campus leaders incorporate racial perspectives in the academy through the construction of the curriculum, diversity initiatives, and institutional policies is essential to improving higher education's relationship with racial equality (Hiraldo, 2010). Also, academic and student affairs offices should work collaboratively. If both sides of the institution do not make the institution more inclusive, all the work will be in vain (Hiraldo, 2010).

In the U.S., studies use the term “African American” indiscriminately as a substitute for people of African descent without acknowledging that college and university students from that racial group come from a wide range of geographical areas outside the United States and even the Western hemisphere. Most of the studies reviewed in this paper use Black and African Americans interchangeably (Stubbs, 2022). In this study, the term “African American” refers to people of African descent who originate from the U.S. The African diaspora is so diverse that it is difficult to distinguish between ethnic groups. Latinos, for example, can be White, Black, Native American, or a combination of the above.

For generations, a rule informally known as the “one drop rule,” which provides that one drop of African blood makes a person Black, formed the boundaries of race; it legally created the Black race in the U.S. as we know it today (Hickman, 1996). During slavery and Jim Crow segregation, this eliminated the potential for light-skinned Black people to pass as White (Lujan & DiCarlo, 2021). From the late 19th century to the early 20th century, theologians used biblical and scientific references to suggest that God ordained Africans the ethnological status as “nonhuman” or as “beast” (Payne, 1867; Carroll, 1900). Over 150 years after the end of slavery in the U.S., the application of the one-drop rule persists when categorizing people of African descent in the racial spectrum.

An essential aspect of racism and racial bias is classifying people into racial categories. For example, one cannot understand the history of lynching in the United States without exploring the discourses and imagery that define people of African descent as savage and sensual as beasts (Carroll, 1900). This conception of history recognizes that ideas or social phenomena help to produce a shared sense of how the present is

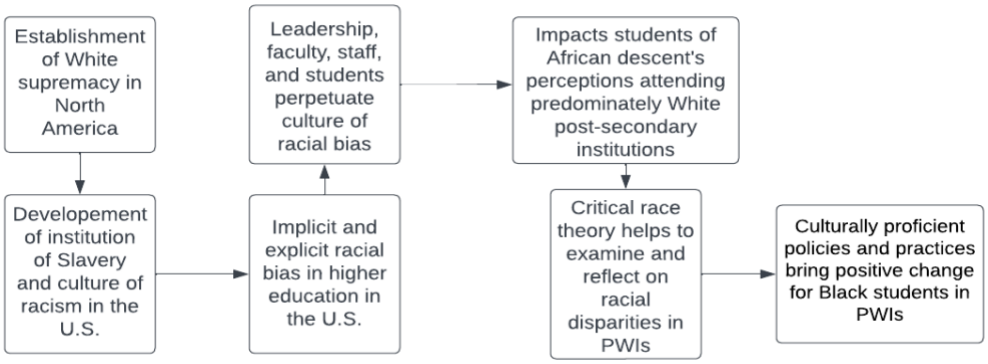
defined and conceptualized. The collective memory of ongoing ideas and knowledge frames how current practices are deployed (Carroll, 1900).

Significance of the Study

Figure 1 illustrates how a history of White supremacy, slavery, and segregation in the United States has led to a culture of racism. To explore the topic of implicit bias, we must recognize that it is rooted in historical events, including colonialism, the enslavement of Africans, the genocide of Native Americans, and the construction of race in the United States. According to Cohen and Kisker (2019), people outside the Euro-Christian cultural, sexual, and social norms gained access to education through government intervention and activism.

Figure 1

Conceptual Framework, Variables, and Constructs in the Study



Note. Figure 1: In this illustration we see how a history of slavery, segregation, and racial inequality shaped the culture of racial bias in U.S. colleges and universities.

This analysis changes the focus from the deficit approach in education to an asset-based one. The current study centers on American higher education's obligation to examine faculty's attitudes toward students (Costner et al., 2010). Implicit racial bias became entrenched in the college and university system because of an unapologetic

culture of racism in the United States resulting from the enslavement of people of African descent. At the end of the 19th century, forty years after the U.S. abolished slavery, William Edward Burghardt Du Bois, a sociologist and Pan-Africanist wrote that Black people wished to hold onto their African and American identities without having the doors of opportunity slammed in their faces due to White racial discrimination (Du Bois, 1903). Now, in the 21st century, one's African identity is used to deny students equal access to the college and university experience.

Critical race theory (CRT) explores Black students' perception of campus life and how racism impacts student success and institutional decisions by leaders, faculty, and staff (Patton et al., 2007). Embracing the critical race theoretical perspective is essential in creating safe spaces for dialogue, reducing microaggressions on campus, and moving toward understanding the intricacies of racial identity in the U.S. (2007). Discussions prompted by students, faculty, and the leadership about implicit racial bias are insufficient because colleges and universities should incorporate culturally proficient policies, practices, and instruction that bring positive academic and social change for students of African descent.

The current study is critical because students of African descent are 40 percent less likely to have completed college in six years than other racial/ethnic groups, such as Asians (Shapiro et al., 2019). Indebtedness to for-profit schools is more prevalent among students of African descent than other groups, which may indicate discrimination or a lack of support for students with unique cultural and material needs (Knox, 2023). This research fills a gap in the literature because there is insufficient research regarding theoretical perspectives and data on the impact of implicit racial bias on students of

African descent in predominately White institutions (PWIs). The current study is also significant to higher education because it contributes to the national dialogue on diversity, equity, and inclusion, considering protests against police violence and other alarming events.

This study can improve the Black experience in college by recognizing the impact of implicit racial bias and the benefits of race-conscious engagement for students, faculty, and administrators. According to Boykin et al. (2020), combating systemic racism requires transforming a school's curriculum rather than just workshops that broadly address discrimination. All individuals must learn about the historical origins of racism in the U.S. This study's findings will contribute to the literature regarding making post-secondary institutions more diverse, equitable, and inclusive for students. This entails creating an atmosphere where students of African descent are valued, protected, welcomed, seen, heard, supported, and respected. *The Implicit Racial Bias Higher Ed Questionnaire* (IRBHEQ) used in this study allows students to voice their opinions and feelings about their experiences in PWIs, and to hear from students of other racial/ethnic backgrounds about their perceptions of implicit racial bias on higher education campuses.

Connection to Social Justice

For many people, being anti-racist means seeking out the stories of communities of color and educating oneself on how systemic racism dictates different life outcomes for other races (Slater, 2021). It is challenging to achieve because the history of slavery and segregation in the U.S. makes tackling racial bias and prejudice a massive undertaking. The legacy of this history includes imprisonment and deliberate miseducation of people of African descent, their fight for social justice, and an equitable

experience in colleges and universities. Racism has real-world repercussions on Black people financially, emotionally, and healthily. Racism tremendously impacts Black people's well-being, and research supports this contention (Boykin et al., 2020). Solorzano et al. (2000) found that microaggressions and bigotry at school left students of African descent feeling discouraged, frustrated, exhausted, and sad; thus, they believed they could not perform well academically.

Historically, students on college campuses have tended to self-segregate as students mingle with whom they know or feel comfortable (Wilson, 2015). In response to the demonstrations after the shooting of George Floyd and the formation of Black Lives Matter, institutions have employed chief diversity officers to deal with diversity issues; however, a lack of resources has made this position ineffective (Wilson, 2015). Floyd's death provoked racial reckoning and moved most decent Americans to protest institutional racism (Robinson, 2021). The killing of the 46-year-old on May 25, 2020, opened the world's eyes to the societal inequities people of African descent face in the United States.

In the U.S., as the assaults on Black bodies and mental health continue, there are efforts around the country to undo the civil rights gains of the last half of the 20th century. For example, Florida's Stop W.O.K.E. Act, a law limiting what schools, universities, and workplaces can teach about race and identity (Bennion, 2023). Books written to highlight White supremacy and uplift minoritized people are being banned all across the country. On June 29, 2023, the same legacy of racism and segregation led the United States Supreme Court to end race-conscious admission programs at all colleges and universities as a result of the *Students for Fair Admissions, Inc. v. the President and*

Fellows of Harvard College and *Students for Fair Admissions, Inc. v. University of North Carolina et al.* cases. The Supreme Court ruled 6-3 that the admissions policies utilized by Harvard College and the University of North Carolina violated the Constitution's equal protection clause. Colleges and universities attempted to bridge the gap and remove obstacles to higher education for African Americans through affirmative action programs. It was an effort to right the wrongs of more than 200 years of slavery, racial discrimination, and White supremacy in the United States.

The current study is part of a deliberate attempt to bring implicit racial bias to light to reduce its adverse effects and remove barriers to Black students' success and sense of belonging in post-secondary settings. Higher education professionals and students are deliberate when they regularly challenge their assumptions and opinions, are curious about the perspectives of people of African descent and attempt to find common ground and shared understanding (Trede et al., 2016). Studies like Carnevale et al. (2023) have found that the most effective way of increasing socioeconomic diversity at selective colleges is to consider race in the admissions process, not to ignore it.

According to Leath and Jones (2022), Black students with more positive perceptions of their institutional climate may be more likely to seek mental health support when needed because they view their institution as supportive and inclusive. Black students who perceived their campus as more welcoming to racial and ethnic minority students indicated lower anxiety levels (Leath & Jones, 2022). Understanding students' perceptions of implicit racial bias can aid in developing a curriculum that encourages students to think beyond their own cultural and individual experiences to collaborate more effectively in multicultural post-secondary settings.

Research Questions

Research Question 1

What is the relationship between students' perceptions of implicit racial bias and their grade point average (GPA)?

Hypotheses

H_0: There will be no significant relationship between students' perceptions of implicit racial bias and their grade point average (GPA).

H_1: There will be a significant relationship between students' perceptions of implicit racial bias and their grade point average (GPA).

Research Question 2

What is the relationship of students' perceptions of implicit racial bias and credits earned in predominantly White institutions (PWIs)?

Hypotheses

H_0: There will be no significant relationship between students' perceptions of implicit racial bias and their credits earned in predominantly White institutions (PWIs).

H_1: There will be a significant relationship between students' perceptions of implicit racial bias and their credits earned in predominantly White institutions (PWIs).

Research Question 3

How do implicit racial bias perception scores of students attending a PWI compare when considering gender and racial/ethnic identity?

Hypotheses

H_0: There will be no significant difference in implicit racial bias perception scores of students attending a PWI based on gender.

H_1: There will be a significant difference in implicit racial bias perception scores of students attending a PWI based on gender.

H_0: There will be no significant difference in implicit racial bias perception scores of students attending a PWI based on racial/ethnic identity.

H_1: There will be a significant difference in implicit racial bias perception scores of students attending a PWI based on racial/ethnic identity.

H_0: There will be no interaction effect between students' gender and racial/ethnic identity.

H_1: There will be an interaction effect between students' gender and racial/ethnic identity.

Research Question 4

How do students of African descent and other students in PWIs compare in their perceptions of campus culture?

Hypotheses

H_0: There will be no significant difference in students' perceptions of campus culture when comparing students of African descent and other students in PWIs.

H_1: There will be a significant difference in students' perceptions of campus culture when comparing students of African descent and other students in PWIs.

Definitions of Terms

Black

A person having origins in any of the Black racial groups of Africa. It includes people who indicate their race as "Black or African American" or report entries such as

African American, Kenyan, Nigerian, or Haitian (U.S. Census Bureau). Black includes all people of African descent.

Campus racial climate (CRC)

Campus racial climate (CRC) is defined as community members' attitudes and perceptions regarding issues of race and diversity, particularly the perceived level of racism and discrimination within the campus environment (Hurtado et al., 1999, p. 34).

Critical Race Theory (CRT)

Yosso (2005) describes CRT in education as a philosophical and analytical framework that disrupts how race and racism impact institutional structures, customs, and discourses (p. 74). CRT maintains that race and racism are the outcomes of social thinking and power dynamics, and it strives to understand how racial inequity is maintained through innocuous institutions and beliefs (Rollock & Gillborn, 2011).

Implicit Racial Bias

Implicit racial biases are racial/ ethnic prejudices the individual is unaware of. Kirwan Institute for the Study of Race and Ethnicity defines implicit racial bias as attitudes or stereotypes residing deep in the subconscious that unconsciously affect our understanding, actions, and decisions (Staats et al., 2015, p. 62). In the current study, the researcher examines how deep-rooted and historical stereotypes impact students of African descent in colleges and universities in the U.S.

School Culture

School culture is the historically transmitted patterns of meaning that include the norms, values, beliefs, ceremonies, rituals, traditions, and myths understood, in varying degrees, by members of the school community (Stolp & Smith, 1994).

CHAPTER 2 REVIEW OF LITERATURE

The previous chapter included an overview of the study and the research questions. This quantitative study explored how gender, GPA, racial-ethnic background, and credits earned impacted students' perceptions of implicit racial biases in PWIs. The research examined a private college and two private universities in a large metropolitan area in the northeastern part of the U.S. The second chapter delves deeper into the theoretical framework and exposes the reader to a review of relevant literature. The chapter concludes by discussing how the current research adds to the body of knowledge on the complexities of implicit racial bias in higher education. The following chapter will explain the methods and procedures used to conduct the research study.

Theoretical Framework

College and university instructors and administrators need to realize how a curriculum focusing solely on White and European perspectives marginalizes students of African descent and creates disparities. Experts can use theories like the researcher intends to employ Critical Race Theory (CRT) to formally make sense of observations and phenomena (Patton et al., 2007). At colleges and universities, CRT can help researchers evaluate teachers' interactions with students of African descent and provide a more sophisticated analysis of what happens in these learning spaces (Chapman, 2007). According to Razack and Jeffery (2002), the crucial principles of CRT are:

1. Racism is the norm rather than an aberration in American society.
2. Storytelling dissects the myths, assumptions, and historical knowledge that underpin a racialized culture that oppresses persons of African origin in the United States.

3. Liberalism's goals of justice and equality divert our attention away from White people's need to analyze the benefits they obtain from the racialized society they constructed.
4. White people gain from legislation allegedly designed to help Black people and how White supremacy is constructed, maintained, and preserved.
5. Scrutinizing and recognizing Whiteness is a fundamental construct in the United States.
6. CRT requires ongoing curriculum reviews to update and teach concepts and ideas about racial ideology.
7. CRT is a vital research area for education and continues to evolve.
8. Educators should recognize how race is vital in a global age.

The first African American civil rights lawyer to teach at Harvard Law School, Derrick Bell, coined Critical Race Theory (CRT) in the early 1970s (Delgado & Stefancic, 1998). The positivist and liberal legal discourse surrounding the American civil rights movement triggered the development of CRT, which denounces the slow pace of racial reform in the United States (Ladson-Billing, 1998). Many people oppose CRT because it undermines White people's perceived entitlement to put their viewpoints and interests front and center (Reay, 2009).

Some state legislatures have banned the teaching of CRT, some parents are outraged about the threat they think it poses to their children, and in some places, teachers and administrators have been threatened or lost their jobs (Teitelbaum, 2022). Opponents of CRT believe that racism has decreased significantly in recent decades, as evidenced by civil rights legislation, school desegregation, affirmative action, expanded

political and media representation, multicultural curricula, and the election of Barack Obama and Kamala Harris (Teitelbaum, 2022). The Individual Freedom Act, also known as the "Stop Woke Act," signed into law by Florida Governor Ron DeSantis in April 2022, prohibits teaching that one race or gender is morally superior to another and labels racial colorblindness as racist (Golden, 2023).

Supporters of CRT distrust Eurocentrism and focus on people of color who, they argue, are the oppressed in the modern world. They acknowledge that racism is permanent and will never end, that regression will follow periods of racial progress, and that hoping for more is futile (Delgado, 1998). Since their voice is essential for thoroughly examining the educational system, the perceptions of people of color can spark the necessary cognitive conflict to upset implicit forms of racism (Ladson-Billings & Tate, 2016).

CRT emphasizes the relevance of people of color's voices, defined by racism and at odds with mainstream culture. Understanding the story of people of African descent leads to realizing how they became oppressed and subjugated (Ladson-Billings & Tate, 2016). CRT does not follow a linear progression because it evolved from multiple epistemologies, African American theorists, and historical personalities (Cole, 2017). Ladson-Billings (1998) also argues that modern conceptions of race, especially Whiteness and Blackness, are more embedded and fixed now than in any other historical period. CRT focuses on sentiments, language, social construction, and the uniqueness of people of color, according to Delgado (1998), while agendas critical to minority communities' well-being and survival are under threat. To get beyond persistent racial disparities and realize the vision for an equitable and inclusive version of American

higher education, we must consider racism's harmful effects by examining how racist institutional practices undermine equity and diversity (Harper, 2012). To achieve this, educators should use theory to become aware of who they are and how perspectives shape their interpretations of social phenomena.

Researchers who employ CRT address their racial, class, and gender roles in ways other techniques and theories do not (Chapman, 2007). Finally, theorists attempt to transform people of color's marginalization into an opportunity for future development and real activism on behalf of individuals oppressed by race and other interconnected elements like gender, economic class, and sexual orientation (Bell, 2005). According to Bell (2007), we need to focus on how parents and children across social, racial, and ethnic backgrounds interact with educational institutions from pre-K through post-graduate school and how educational institutions change in response to new global circumstances.

Review of Related Literature

The following review divides the literature into six categories: Implicit Racial Bias Impacts Perceptions of Students in PWIs, Implicit Racial Bias Impacts Black Student's Performance, Campus Climate Influences the Experiences of Black College Students, Utilizing Afrocentric Pedagogical Approaches to Teach Students of African descent. Each section provides summaries of research studies, which offer detailed critical reviews of the research and how each study relates to the current research.

The literature review examines the physiological toll that implicit racial bias has on students of African descent and their ability to persist in college and notes any gaps found. This literature review highlights studies conducted on implicit racial bias in higher

education and the use of CRT as a theoretical framework to analyze the phenomenon. The literature affirms that student performance will increase when schools are run by leaders who use a holistic approach to help Black students feel a sense of belonging. It also includes literature that reveals the subconscious nature of implicit racial bias, making it difficult for college and university administrators and the lack of standard procedures and policies to address it. The selected literature provides insight into themes that center around implicit racial bias's impact on perceptions of students of African descent, low-performance rates among Black students, and the fact that the White majority constructs educational policy and benefits from the current system (Stewart et al., 2012). The literature below provides peer-reviewed support for the present study as opposed to anecdotal evidence.

Implicit Racial Bias Impacts Perceptions of Students in PWIs

A study by Shearman et al. (2023) investigated college students' perceptions of campus climate and racial integration. In a predominantly White institution (PWI) in the Southern United States. The researchers examined students' ethnic identity, perceived interracial climate, significant others' disapproval of interracial integration, and attitude and behavior toward interracial integration.

The researchers used variables like the occurrence of close interracial friendship and positive attitudes toward interracial dating as indicators of interracial integration (Shearman et al., 2023). They also investigated how willing students were to develop friendships with peers of different races and ethnicities, their attitudes toward interracial dating, and the role that perceived racial climate, the strength of ethnic identity, and the

significant others' attitudes toward racial integration play in students' willingness to form such relationships (Shearman et al., 2023).

Nine hundred ninety-six undergraduate students completed the survey at a public PWI in the Southeast of the United States. The survey included

- questions about students' ratio of interracial friends,
- their attitudes toward interracial dating,
- their perception of the campus interracial climate and
- their perception of significant others' approval toward interracial friends.

It also included demographic questions about sex, age, race, and ethnicity.

Among the participants, 42.3% (*n* = 423) were men, 57.4% (*n* = 573) were women, and 0.3% did not disclose their sex. Their ages ranged from 18 to 34, with a mean age of 21.6 years and a standard deviation of 2.14 years. The majority of the participants, 76.1% (*n* = 760), identified themselves as White/European Americans, followed by Black/African Americans, 13.3% (*n* = 133), Mixed/Biracial (or Multi-ethnic) 3.7% (*n* = 37), Latino/Hispanic American, 2.1% (*n* = 21), Asian/Asian American, 2.0% (*n* = 20), Native American/American Indian, 0.4% (*n* = 4), and other, 2.2% (*n* = 22) (p. 99). Subjects identified as Black/African-Americans, Latino/Hispanic-Americans, Asian/Asian-Americans, Native-Americans, mixed/biracial, and others were grouped into the students of color (SOC) category to compare the White/European American students' perspective to that of the SOC (Shearman et al., 2023).

The researchers developed the following hypotheses:

Hypothesis 1: SOC are likelier to perceive a negative racial school climate than White students at a PWI.

Hypothesis 2: SOC are likelier to report stronger ethnic identity (affiliation and belonging as well as ethnic identity achievement) than White students at the PWI.

Hypothesis 3: SOC are more likely to have higher indicators of integration in terms of a reported ratio of interracial friends than White or European American students at a PWI.

Hypothesis 4: The SOC are more likely to have positive attitudes toward interracial dating than White students at a PWI.

Hypothesis 5: SOC and White students attending a PWI are equally likely to encounter their significant others' disapproval of their interracial dating relationship (2023, p. 95 - 99).

The first hypothesis was only partially validated. In terms of the overall perception of the school's racial climate and its two subscales, perceived interdependence and perceived supportive norms, there were no significant differences between White students and the SOC. However, there were significant differences between White students and the SOC's perceptions of equality, affiliation, and stereotype (Shearman et al., 2023).

There was a significant difference in perceived equality on campus ratings between White students and the SOC, $t(2, 978) = 4.061$, $p < .001$, in that the SOC had significantly lower scores of perceived equality ($M = 3.11$, $SD = 0.91$) than White students ($M = 3.36$, $SD = 0.82$). There also was a significant difference between White students and SOC on the subscale of association, $t(2, 978) = -3.510$, $p < .001$, where the SOC had significantly higher scores of perceived associations ($M = 3.77$, $SD = 0.70$) than White students ($M = 3.59$, $SD = 0.68$).

SOCs (M = 3.34, SD = .49) reported a significantly greater total ethnic identity scale score than White students, (M = 3.10, SD = .45), $t(2, 973) = -6.885$, $p < 0.001$, meaning that hypothesis 2 was retained. Compared to White students, the SOC reported significantly higher scores on affiliation, belonging, and ethnic identity. According to the findings, SOCs are more ready than their White/European American classmates to identify with their ethnic groups and are more interested in knowing more about their ethnic identities (Shearman et al., 2023).

For hypothesis 3, in comparison to White/European American students, SOC reported having significantly more interracial friends (38%) versus (14%), $t(2, 974) = -13.372$, $p < 0.001$. There were significant differences in students' attitudes toward interracial dating, which supports hypothesis 4. SOC reported a significantly higher score (M = 3.61, SD = .79), indicating more positive attitudes toward interracial dating when compared to White students' attitudes (M = 2.87, SD = .93), $t(2, 972) = -10.723$, $p < 0.001$ (Shearman et al., 2023).

Hypothesis 5 predicted that SOC and White students attending a PWI were equally likely to encounter their significant others' disapproval of their interracial dating relationship. There was a significant difference, t (2, 981) = 11.964, p <.001, in that White students reported significantly higher scores of disapproval (M = 3.56, SD = .97) than the SOC (M = 2.69, SD = .94). According to Shearman et al. (2023) this indicates that White students faced more opposition toward integration from their significant others than the SOC (Shearman et al., 2023).

The data shows that SOCs were likelier to have more interracial friends. Significant predictors of students' perceptions of intergroup friendships include a

supportive school environment and significant others' attitudes toward integration. The significant relationship between racial school climate and students' ethnicity suggests that racial school climate has a more meaningful impact on SOC and that positive school climates promote integration (Shearman et al., 2023).

A limitation noted in the study is that the data came from a cross-sectional survey and provided a snapshot of students' integration indicators, perceptions regarding campus climate, ethnic identity, and significant others' attitudes that suggest strong associations among these essential variables, but not enough to understand the dynamics of interracial relationships and interactions on college and university campuses (Shearman et al., 2023). For a future study, the researchers should examine why White students have a lower ratio of interracial friends and are reporting less favorable attitudes toward interracial dating when compared to students of color. Researchers should follow up with students to uncover why White students faced more opposition toward integration from their significant others.

Another study explored university students' perceptions and experiences regarding issues of race and racism in the United Kingdom. Drawing on in-depth interviews with 42 undergraduates in science, technology, engineering, and mathematics (STEM) degrees, the researchers explored the nuances in racial perspectives as they highlight three contemporary student discourses of racism: *the naive*, *the bystander*, and *the victim* (Wong, 2021). Those who do not believe race and racism are important today, particularly in the UK, are called *the naïve*. Students who expressed *the bystander's* viewpoint appear aware of racism and racial inequality but are not immediately ready to intervene or speak out. *Victims* experienced mistreatment because

of their race or ethnicity, including microaggressions, implicit and covert racism, and overt and blatant manifestations of racial prejudice and discrimination (Wong, 2021). Those identified as *victims* said that prior interactions had made them more resilient to racist epithets or insults.

The researchers were interested in how greater equality is manifested, shared, and experienced by contemporary university students, with a focus on 'race'/ethnicity (Wong, 2021). This research was part of a three-year qualitative study investigating the lived experiences of minority ethnic students in STEM undergraduate degrees (Wong, 2021). The participants were diverse, with the majority self-identifying as from a BAME (Black, Asian, and Minority Ethnic) background (*n*= 28, or 67%) and a higher proportion of female students (*n*= 31, or 74%). The researcher recruited students from various backgrounds, such as Black, East Asian, Middle Eastern, Mixed, South Asian, and White European (Wong, 2021).

The culture of silence, which affects the process of reporting racial occurrences and creates a "bystander complex," as well as concerns on and off campus, was among the many factors the study identified as contributing to the racialized experiences of BAME students at a university (Wong, 2021). Respondents identified issues that universities should take into consideration, including the need to broaden and improve staff diversity, improve student rights and responsibilities awareness and reminders (including being able to report incidents), and a genuine celebration of various heritages and cultures (Wong, 2021).

Wong et al. (2021) found that race continues to be relevant in UK higher education, as evidenced in the three prominent discourses of racism (*the naive*, *the*

bystander, and *the victim*) articulated by contemporary university STEM students. Future studies could authenticate the prevalence of these discourses across different institutions and contexts. Wong et al.'s results bolster the current research because they provide a contemporized perspective on how race and racism are perceived and experienced by post-secondary students. Additionally, it provides essential insights into the current state of racism for higher education students, alongside potential implications for policy and practice. Helping students and faculty understand the experiences of other cultural groups within academic settings is necessary for a culturally competent curriculum (Enyeart et al., 2017). Administrators should embrace that many colleges and universities are already composed of people with various ethnic, racial, religious, and sexual orientations.

Another experiment by Hillard et al. (2013) examined reactions to the Implicit Association Test (IAT) as an educational tool to raise awareness about racial bias using 172 students. The research's purpose was to examine student responses to the IAT as a tool to raise awareness of discrimination. The researchers also examined how one might maximize the positive consequences of increased awareness of implicit bias and minimize the adverse effects (Hillard et al., 2013).

The researchers used mixed methods analyses to explain responses to the IAT and the degree to which the IAT may raise consciousness about implicit bias (Hillard et al., 2013). Thirty-two reflection papers were read and then coded with a descriptive label in MAXQDA, with a preference for in vivo coding. For the qualitative examination, the researchers used thematic analysis centered on shared experiences and examined participants' reactions to the IAT. Lastly, they analyzed the codes for five higher-order themes.

The 172 participants' mean age was 20.73 years (SD = 4.65) and were 86% European American/White. The rest were 4% Asian, 3.5% Hispanic/Latino, 2.3% African, 0.06% Indian Americans, and 61.6% women.

The quantitative results indicated that perceptions of bias were significant. Especially, European American (EA) participants (M = 2.74, SD = 0.83) perceived themselves to be more biased than did ethnic minority participants (M = 2.33, SD = 0.68), t (170) = 2.30, $p < .05$, d = .54. Men (M = 2.92, SD = 0.87) saw themselves as more biased than did women (M = 2.59, SD = 0.89), t (135) = 2.40, $p < .05$, d = .71. Qualitative themes include theme 1: negative reactions to the IAT experience, theme 2: positive reactions to the IAT experience, theme 3: "Accurate" measure of personal beliefs, theme 4: depersonalization of IAT score, and theme 5: interethnic ideology.

The qualitative analysis provided a deeper understanding of responses to the IAT, which supplemented the quantitative analysis and highlighted meanings participants ascribed to the IAT not included in the quantitative measures (Hillard et al., 2013). According to the researchers, combining these findings suggests that the IAT can increase awareness of bias regardless of participants' positive or negative responses to the experience. Separate studies have tried to compare how racial discrimination impacts students in predominantly White institutions (PWIs) and historically Black colleges and universities (HBCUs). The gap in the literature that aligns with the research questions is unclear how this online IAT feedback affects participants, their awareness of prejudice, and their later behavior (Hillard et al., 2013). Like Hillard et al. (2013), the current study uses mixed methods analysis and an instrument to analyze answers.

Implicit Racial Bias Impacts Students of African Descent's Performance at PWIs

Franklin (2016) argues that institutions, practitioners, researchers, and higher education leaders can address racial microaggressions, racial battle fatigue, racism-related stress, and racial trauma through theoretical and empirical studies to make their campuses more equitable. The study also found that implicit racial bias can cause psychological and physiological stress for students of African descent in PWIs. Recognizing students of African descent's anxiety in racist environments can help college and university leaders accurately understand and address the structural racism in academia (Franklin, 2016).

Attending post-secondary schools is insufficient to ensure Black students' success. Instead, school administrators should promote inclusive campus settings devoid of racial microaggressions and help students analyze, assess, and name their racist experiences (Franklin, 2016). Franklin (2016) posits that whether intentional or not, racial microaggressions convey to historically underrepresented and marginalized groups that they are not welcome on college campuses. Microaggressions occur in all institutions, including Historically Black Colleges and Universities (HBCU) and Hispanic Serving Institutions (HSI), because these institutions admit White students. Finally, Franklin adds that knowing the stress reactions that students may have in racist surroundings might assist higher education officials in understanding better and confronting the structural racism that exists in higher education institutions.

The impact of implicit racial bias is that it forces students of African descent to conform to accepted European-American culture. Until colleges and universities commit to hiring staff and faculty that look more like the student body, Black students will

struggle at PWIs. Built-in support for traditional education and unwillingness to recognize the benefits of a diverse faculty and Afrocentric curriculum is an acceptance of the dominant culture.

Ladson-Billings (1995) asserts that culturally relevant teaching is a pedagogy of opposition explicitly committed to collective empowerment, not merely individual enfranchisement. Culturally relevant pedagogy rests on three criteria or propositions:

1. Students must experience academic success.
2. Students must develop and maintain cultural competence.
3. Students must develop a critical consciousness by challenging the current social order and status quo (p. 160).

According to the Ladson-Billings, the theoretical undergirding of the article came from a three-year study of successful teachers of students of African descent. Culturally relevant teaching (CRT) requires that students maintain cultural integrity and academic excellence and utilize students' culture as a vehicle for learning. Instead of asking what is wrong with students of African descent, school officials should find out what is right with them (Ladson-Billings, 2014).

Later, in two studies, Jacoby-Senghor et al. (2016) used the subliminal priming task to measure how instructors' implicit racial bias impacts students in the classroom. The study aimed to learn whether teachers' unintentional and implicit racial bias produces racial disparities in academic achievement. In study one, White participants took on the instructor's role and taught Black or White students. The researchers gave 210 Princeton University undergraduates $20 or course credit to produce 51 cross-race and 54 same-race, same-gender lesson dyads (37% male) to meet the researchers' target

of fifty of each dyad type (Jacoby-Senghor et al., 2016). In study two, a separate sample of non-Black participants watched videos of instructors from cross-race lessons from the first experiment. One hundred sixty-five non-black Princeton University undergraduates, 98% white and 38% male participated in this research. The studies determined whether it was a factor in racial disparities in academic achievement and evaluated the relationship between instructor lesson quality and learners' subsequent test performance (Jacoby-Senghor et al., 2016).

In a linear regression analysis, the researchers used instructors' mean-centered implicit racial bias, learner race (0 = White; 1 = Black), and the interactions of implicit bias and learner race as predictors of the learner's test performance. They included mean-centered explicit bias and its interaction with learner race as covariates in the study because they were interested in the impact of instructors' implicit bias beyond their explicit prejudice. The 210 Princeton University undergraduates participated in the study to produce 51 cross-race and 54 same-race lesson dyads, meeting our target of fifty of each dyad type. In addition, all dyads were same-gender pairs (37% male; Jacoby-Senghor et al., 2016).

The researchers found that implicit racial bias detracts from the success and well-being of racial minorities. According to the findings, low performance by minorities was driven by how implicit racial bias influences pedagogical effectiveness in the classroom (Jacoby-Senghor et al., 2016). The research found that instructors' implicit bias influenced their lectures and students' future performance. In study one, however, they discovered that higher teacher explicit bias was associated with lower learner test performance, but not in study two. This disparity between experiments implies that

instructors' implicit and explicit biases affect student learning differently. The literature shows that the study of how prejudice can hamper minority students' academic achievement has increased in higher education, but examining how teachers contribute to the problem has declined (Jacoby-Senghor et al., 2016).

The researchers also observed that anxiety and substandard lesson quality associated with instructors' implicit bias caused Black students to perform worse, triggering identity threats and belonging concerns that further diminished performance. Lastly, Jacoby-Senghor, Sinclair, and Shelton (2016) present a plausible structure for evaluating the link between the interactions of implicit racial bias and learner race as predictors of the learner's test performance in a linear regression analysis in a way that informs my dissertation. A limitation of the experiment was the simulated nature of teacher-student interaction in the classroom.

Campus Climate Influences the Experiences of Students of African Descent

Bailey et al. (2021) used a survey distributed via Qualtrics to a convenience sample of students representing five universities to assess how the college experience influences how students perceive racially-coded language. The researchers employed a survey that allowed them to consider attitudes toward racially-coded language via slogans and policies. They used an Ordinary Least Squares (OLS) Regression to analyze college students' attitudes toward racially-coded language. The researchers proposed two hypotheses:

1. Class Rank Hypothesis: Students with longer college tenures will express a more positive view of welfare policy and race-coded slogans associated with inclusion;

students with longer college tenures will express a more negative view of anti-crime policies and racially-coded slogans associated with racism.

2. Campus Involvement Hypothesis: Students who are more involved on campus will express a more positive view of welfare policy and race-coded slogans associated with inclusion; students who are more engaged on campus will express a more negative view of anti-crime policies and racially-coded slogans associated with racism (Bailey et al., 2021, p. 4).

Researchers utilized data from a non-random survey of 516 students from five universities across the United States. The survey collected various political attitudes and behaviors, including questions relating to racially-coded policies (i.e., welfare, crime, and immigration), racially-coded language (i.e., "Black Lives Matter," "Back the Blue," and "Make America Great Again"), and campus involvement (Bailey et al., 2021).

The study found no support for the influence of campus tenure impacting support for racially-coded slogans like "Black Lives Matter," "Back the Blue," or "Make America Great Again." Respondents' race, gender, media consumption, biblical literalism, presidential vote choice, and party drive their attitudes toward the slogans. However, there is some support for the Campus Involvement Hypothesis. A statistically significant negative relationship exists between non-academic campus involvement and approving slogans coded as anti-Black. Specifically, those involved in non-academic campus organizations were less likely to support "Back the Blue" and "Make America Great Again." Meanwhile, student-athletes were significantly more supportive of "Make America Great Again." There was no connection between campus involvement and approval of "Black Lives Matter." The study also found that tenure in college and

campus involvement had varying impacts, while partisanship, gender, race, and attitudes toward the Bible influenced expected political views. Students who spent more time on campus were less likely to support a harsher criminal justice system, more likely to believe that everyone is treated fairly by the courts, and less likely to think that illegal immigrants were stealing employment from Americans.

Except for athletics, the survey also revealed that students who were active in non-academic campus organizations were more likely to react adversely to slogans that contained implicit racial associations. The researchers controlled for campus-specific characteristics that could impact the dependent variable in each model. The survey could not account for the respondents' living situation (on or off campus), transfer status, or the state or region they identify as their home (Bailey et al., 2021). It also did not ask how much time the participants spent with professors outside of class.

Some limitations of this study were that female respondents dominated the sample, the survey did not address campus-specific information (i.e., public/private, regional location, enrollment, status as PWI/HBCU), researchers collected the data in the Fall of 2020 when covid reduced participation on campus (Bailey et al., 2021). Bailey et al.'s study informed and enhanced the current research and data collection methods. Usage of a survey sent to a convenience sample of college students to assess how the college experience influenced how students perceive racially-coded language and regression to analyze it helped guide the current study.

Another study conducted by Campbell et al. (2019) recruited 352 African American students attending predominantly White institutions (PWIs) and historically Black colleges and universities (HBCUs) to examine how differences in sensitivity to

racial status related to self-reported scores of students' academic success and satisfaction (p. 390). This research aimed to explore social and academic factors across two campus climates and how these experiences influenced the educational pursuits of Black college students. The researchers did not discuss the differences in the environment.

The data for this study came from the African American Daily Life Lives (AADLX) Study, a four-year longitudinal data set aimed at analyzing the experiences of African American college students. The researchers examined two time points over one year, from 2006 to 2007. Participants came from three campuses: two large predominately White institutions (PWIs), one in the South (n = 152) and the other in the Midwest (n = 170), as well as a medium-sized historically Black college/university (HBCU) in the Southeast (n = 136), ranged in age from 18 to 21 (M = 18.73, SD = 0.68) (2019). The study evaluated age, gender, ethnicity, and family socioeconomic status as part of the demographic data. The researchers reassessed participants who self-identified as African American, with 75 percent female one year later. The two PWIs who completed both time points were included for examination to test for longitudinal effects. Furthermore, researchers included White students from the two PWIs who completed both time frames; this decreased the group to 352 individuals (246 from the PWIs and 106 students from the HBCU). Participants received $15.00 each year for completing a 45-minute annual survey online in a research laboratory or computer-based classroom at each institution (Campbell et al., 2019).

In this study, the researchers used an analysis of variance ANOVA and correlation. In addition, they applied the universal context of racism (UCR), measured by eight items that evaluate the degree to which race-relevant events are accessible (p. 396).

Responses were on a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree) (2019, Pg. 396). UCR claimed that people of African descent acknowledge that their racial status may contribute to unjust results and cause them to employ self-protective and self-enhancing responses to discrimination. UCR is a theoretical framework that consists of impulses that promote self-defense or self-enhancement to sustain or defend a Black person's self-worth in the face of racism (Campbell, 2010).

The calculated Universal Context of Racism Scale results showed evident internal reliability (α = .84), with higher scores suggesting greater awareness of the probability of the impact of racism (Campbell et al., 2019). Students attending the HBCU (M = 6.13, SD = 0.77; M = 6.13, SD = 0.73) viewed their race as more significant than their PWI counterparts (M = 5.84, SD = 0.92; M = 5.89, SD = 0.98), thus not supporting the author's hypothesis that racial identity would not vary by institution type. At both times, students attending the HBCU (M = 3.31, SD = 0.44; M = 3.25, SD = 0.47) self-reported a higher GPA than the PWI students (M = 2.91, SD = 0.43; M = 2.93, SD = 0.49) (2019). This analysis showed that African Americans in HBCUs had higher GPAs than those who attended PWIs (Campbell et al., 2019).

They learned that regardless of the type of institution attended, students of African descent who viewed the world through a cultural lens were more likely to recognize situations as racially motivated (Campbell et al., 2019). Cultural lens-based training allows practitioners to see the world through the eyes of someone from a different culture or country, facilitating productive interaction by enabling a person to see the world through the eyes of another (Klein, 2004). The researchers also discovered that students of African descent who live within a UCR paradigm are more aware of their race

and that racial identification varies between institutions using analysis of variance (ANOVA; Campbell et al., 2019).

UCR, according to Campbell et al. (2019), is ingrained in our systems from the moment we are born in the United States. Therefore, institution type influenced self-esteem, and social isolation on campus may result in a less fruitful college experience, especially for the students of African descent attending the PWIs. As a result, Black students at the HBCU reported higher GPAs. This study is critical because it found that regardless of what type of institution an African American student chooses, race matters; addressing racism in academia may help them navigate their post-secondary journey (Campbell et al., 2019). Some post-secondary institutions in the United States have taken different steps to address it, but Black students remain isolated and marginalized. The findings suggest that implicit racial bias is ever-present in our society and university campuses. The results indicated that at both HBCU and PWI institutions, race matters at the individual level, and campus climate impacts groups differently (Campbell et al., 2019). Building on Campbell et al.'s (2019) findings, one area of study for the current study would be to investigate if Black students' interest in race matters differently individually than when they are part of a group.

Griffin et al. (2016) also conducted a study that assessed students of African descent's perceptions of the campus racial climate (CRC) at Central University (a pseudonym). Campus racial climate (CRC) is defined as community members' attitudes and perceptions regarding issues of race and diversity, particularly the perceived level of racism and discrimination within the campus environment (Hurtado et al., 1999).

This qualitative study addressed the potential range of perspectives within the Black student community, focusing on differences by ethnicity and nativity. The researchers collected narratives from 43 Black students (15 native-born, 28 immigrants) enrolled at a predominantly White research institution in the U.S. (Griffin et al., 2016). This study analyzed students' perceptions of diversity and the campus racial climate (CRC) at Central University. Central has approximately 45,000 students; 38,000 are undergraduates, but the study did not keep enrollment data on the number or characteristics of Black students from immigrant backgrounds. Black students make up 3.5% of the population, about 1,400 (Griffin et al., 2016).

Second and 2.5-generation Black immigrants were likelier to experience and perceive campus racial climate like their native Black counterparts, sensing a lack of racial diversity and experiences with marginalization on campus (Griffin et al., 2016). In the classroom, native-born Black students reported frequent social marginalization and second and 2.5-generation students observed more incidents of stereotyping. First-generation immigrants described more campus diversity and noted fewer encounters with racial discrimination. All students expressed interest in engaging with peers from diverse backgrounds but reported varying inclusion levels and their desire to find welcoming environments to engage their peers (Griffin et al., 2016).

The current study focuses on how Black immigrant and native-born Black students experience three internal dimensions: structural diversity, psychological climate, and behavioral climate (Griffin et al., 2016). Despite sharing racial characteristics with native-born Blacks, Black immigrants have distinct ethnic backgrounds and cultures,

ultimately shaping how they perceive their racial and ethnic identities within a U.S. context (Griffin et al., 2016).

The researchers addressed three questions:

1. How do Black immigrant and native students perceive diversity on campus (structural diversity)?
2. How do Black immigrant and native students describe how they perceive and experience the climate (psychological climate)?
3. How do Black immigrant and native students describe their interactions with students from racial and ethnic backgrounds different from their own (behavioral climate)? (Griffin et al., 2016)

This interpretive multi-case study aggregated students into groups or cases based on their immigrant status, facilitating comparisons between native-born Blacks and first-generation, second-generation, and 2.5-generation immigrants. The researcher defined first-generation as foreign-born students; second-generation as students born in the United States who have two foreign-born parents; 2.5-generation immigrants as students born in the United States who have one foreign-born parent and one U.S.-born parent; and natives as students born in the United States with both parents from the U.S. (Griffin et al., 2016).

Students had to meet the following criteria to participate in the study: participants must meet the following requirements: (a) be a full-time student enrolled at the institution, (b) identify as Black, and (c) either they or at least one of their parents were not born in the United States (p. 38). Researchers also used snowball sampling by asking participants to recruit eligible peers based on the study's criteria.

Griffin et al. (2016) found subtle distinctions by ethnicity and nativity in how Black students view diversity on campus, influencing their perceptions of climate and how they engage across differences. The findings suggested that Black immigrant students, especially those in the second or 2.5 generation, experienced and perceived CRC in ways like native Black participants do.

Native Black students described marginalization more often in social situations, whereas students from immigrant backgrounds spoke more of the stereotypes they faced in academic contexts. Their response was to prove that Black students were capable through academic performance (Griffin et al., 2016). Despite not describing the psychological climate outside of the classroom in wholly negative terms, second and 2.5-generation immigrants acknowledged that they were not always comfortable engaging with White students (Griffin et al., 2016). Participants who were first-generation immigrants felt less connected to what it meant to be African American or Black in college and more inclined to identify with their ethnic rather than their racial identities.

A limitation of this study is that Central University does not disaggregate data on its small Black student population, and the researcher did not know how many Black students from immigrant backgrounds are enrolled. It is difficult to determine whether the respondents accurately represented the voices of Black immigrants on campus. A similar study at a more diverse institution might yield different results. Griffin et al.'s (2016) research helps inform the current study by aggregating students into groups or cases based on their immigrant status. This research aggregates Black students into groups based on their nationality/ ethnicity.

In two studies, Starck et al. (2020), found that teachers' racial attitudes reflect those held within their broader society. To investigate implicit and explicit bias among teachers, the researcher utilized two complementary national data sets: Project Implicit and the American National Election Study (ANES) 2008 Time Series Study. Project Implicit comprises over a hundred thousand self-administered, web-based Implicit Association Tests (IATs) and associated metrics. Utilizing Project Implicit data allowed the researchers to evaluate explicit and implicit bias for a large sample of teachers. The 2008 Time Series ANES is a nationally representative survey that includes almost 2,000 in-person election interviews performed during the presidential election of 2008.

To effectively include minority communities, the researchers adopted a targeted sampling strategy, and the sample was weighted to reflect the demographic distribution of participants proportionately. Using the Project Implicit data and a nationally representative sample, scientists could reproduce the study using the ANES. The research focused on a small group of people who had visited the Project Implicit website. Filtering the Project Implicit data to only those who fit these criteria yielded 1.6 million respondents, 68,930 of whom identified as PreK–12 teachers. 73.7 percent of PreK–12 instructors were female, averaging 34.9 years. 60.0 percent of nonteachers were female, with an average age of 29.0 years.

The first study found a slight difference between teachers' bias and the general population. Across the data sets, they found a statistically significant difference of one percent difference between teachers' and nonteachers' susceptibility to implicit and explicit racial biases (Starck et al., 2020). There were no statistically significant differences between teachers and nonteachers on all bias indicators assessed in the second

study. Implicit bias can create feedback loops and self-fulfilling prophecies for Black students that perpetuate inequities and even create inequities where none existed before (Dee, 2017). The science of implicit cognition suggests that perpetrators of bias do not always have conscious, intentional control over the processes of social perception, impression formation, and judgment that motivate their actions (Greenwald & Krieger, 2006).

Utilizing Afrocentric Pedagogical Approaches to Teach African American Students

The purpose of the study was to assess community college faculty attitudes toward educating African American students. The instrument used for data collection in this quantitative study was the modified version of the Teaching African American Students Survey (TAASS). In the survey, participants responded to twenty-one questions concerning their willingness to instruct African American students, their openness to using culture as a resource in the classroom, and their recognition of African Americans as a distinct cultural group using a 6-point Likert scale (Costner et al., 2010).

The researchers used an ANOVA with an alpha level of .05 to determine whether there was a statistically significant relationship between the independent variables: gender, age, highest degree attained, years in current position, academic rank, academic status, discipline, and the dependent variables - community college faculty:

1. Recognition of African Americans as a distinct cultural group.
2. Openness to using culture as a resource in the classroom.
3. Willingness to teach African American students.

The study examined the responses of 477 faculty who teach English, math, or history at community colleges in the Middle Atlantic. Of this population, 239 (50%)

faculty members returned the survey; a total of 221 surveys (46%) were useable. The results revealed that community college faculty were willing to instruct African American students. However, although they were ready to conduct classes with African Americans, they were unwilling to use pedagogical practices like Afrocentric approaches. The findings indicated two central themes: 1) Professors at community colleges were eager to collaborate with African American students. 2.) While community college faculty were willing to teach African American students, they did not want to use pedagogical practices like culturally mediated instruction and Afrocentric approaches that benefit African American students (Costner et al., 2010). The faculty's responses and comments on utilizing culture as a resource in the classroom did not show a commitment to cultural sensitivity or using culture as a resource (Costner et al., 2010).

This research changes the focus from the “fixing the student” approach to a method that centers on American higher education’s obligation to examine faculty’s attitudes toward students (2010). This study’s emphasis on engaging in educational paradigms that benefit African Americans aligns with the current study using a critical race theoretical framework. CRT is a paradigm and approach for confronting race neutrality in theory and practice, recognizing the importance of the Black voice, and examining racism in American culture that favors whiteness and disadvantages blackness (Hylton, 2008).

In another study, Enyeart et al. (2017) analyzed the perceptions of self-reflection and attitudes among students, faculty, and staff to identify strategies to increase opportunities for improved cultural competence in the higher education academic environment in a health professions department. Qualitative and quantitative data were

collected and analyzed to identify student views about diversity in the department and university, perceptions of faculty's acceptance and accommodation of diversity, and knowledge and development of skills related to cultural competence. The researchers also used data from the U.S. Census Bureau (2015). This longitudinal study took over three years and contained a 21-question diversity survey with 15 Likert scale items, descriptive statistics, and chi-square analysis, and qualitative responses were coded and organized into themes. The sample included graduating seniors and graduate health sciences students (male and female) in a southeastern public four-year coeducational liberal arts institute. 78.8% of the participants were white and female, 79.5% were non-Hispanic, 6.1% Asian and Black or of African descent, and 4.7% non-Hispanic. 86.7% were graduating undergraduate students, and 13.3% were graduating graduate students (Enyeart et al., 2017).

According to the findings, most students agreed that faculty were inclusive (91.8%), avoided stereotyping by military status (77.8%), accepted student's sexual orientation (85.6%), age (86.3%), religion (81.1%), and gender (81.4%), used accessible learning formats (75.1%), and addressed multicultural topics and cultural competency within the curriculum (75.0%). In addition, students perceived peers as being open and supportive of all students (85.4%) and with themselves, also have developed skills to be culturally competent health professionals (89.8%), with an increased knowledge of people with diverse backgrounds (85.6%) (2017). Qualitative themes include Cultural Competency, Global Health, Diversity is Not Just Race/Ethnicity, Diversity among Students and Faculty, Everything is Fine, and Quit Talking about It.

Identifying the views of senior and graduate students concerning diversity and cultural acceptance in a large academic department was a focal point in the study discussion. The researchers believe that helping students understand the experiences of ethnic and cultural groups within the educational setting is a necessary component of a culturally competent curriculum. While looking at college seniors is helpful, the study by Enyeart et al. (2017) would be more instructive if it contrasted the experiences of first-year college students and seniors with implicit racial bias on campus.

Espinosa et al. (2019) participated in *Race and Ethnicity in Higher Education: A Status Report,* which provides a data-driven approach for those working to eliminate equity gaps by comprehensively analyzing today's college students' and instructors' educational journeys. According to the study, Black students participating in bachelor's degree programs had lower first-year persistence rates and higher dropout rates than students of any other race or ethnicity. Furthermore, the Black student gender disparity in enrollment remained the greatest of any group. In 2016, women accounted for 62.2 percent of Black undergraduate students and 70.2 percent of Black graduate students.

Although Black undergraduates were more likely than other students to get government scholarships and loans, they also finished with the highest student loan debt. By graduation, 86.4 percent of Black 2016 bachelor's degree recipients who borrowed owed $34,010, compared to $29,669 for all bachelor's degree recipients. The average debt for Black associate degree recipients who borrowed was $22,303, compared to $18,501 for all students. Borrowing trends among African American graduate students are alarming, particularly those at for-profit universities, which enrolled over half of all Black doctoral students in 2016. The majority (95.2 percent) of Black Ph.D. recipients

who attended these colleges took out loans for graduate school, averaging $128,359 on average. The report also found that with a bachelor's degree, African Americans aged 25 to 34 earned 15 percent less and had a two-thirds higher jobless rate than the average bachelor's degree holder their age (Espinosa et al., 2019).

Likewise, the National Center for Education Statistics (2019) noted that the six-year graduation rate for Black students who began seeking a bachelor's degree at a four-year degree-granting institution in the fall of 2010 was 40 percent. The undergraduate population of students of African descent has increased over the past 20 years. Black students who began college in the fall of 2011 had higher dropout rates and lower six-year completion rates than any other racial group (Brown, 2019).

Conclusion

The current study aimed to supplement and expand on earlier studies on the impact of implicit racial bias on students of African descent in higher education. According to Campbell et al. (2019), implicit racial bias is pervasive in U.S. society and university campuses. Their findings revealed that race matters at HBCUs and PWIs and that campus climate has varying effects on diverse groups (2019). Building on Campbell et al. (2019) findings, an area of study for the current research is whether Black interest in race matters differs among students of African descent. Franklin (2016) recognized that understanding and addressing anxieties that Black students experience in racist conditions can help college and university officials effectively evaluate and overcome structural racism in academia.

Starck et al.'s (2020), work supported the present research because it proves the need to address implicit racial bias in the post-secondary system. The current study added

to the body of knowledge by integrating a critical race theory methodology with an instrument that targets and quantifies perceptions of implicit bias among students. The next chapter discusses the current research's techniques, procedures, tools, sample, and population.

CHAPTER 3 METHODOLOGY

This non-experimental quantitative study examined how gender, GPA, racial-ethnic background, and the number of credits earned impact students of African descents' perceptions of culturally implicit racial biases in PWIs. The research design, data analysis, and data-collecting processes are included in this chapter. The researcher chose inferential data analysis procedures to determine the associations between the study's variables. Quantitative research answers questions about the relationships between variables in a study (Williams, 2007). This study began with describing a problem and included developing a hypothesis, a literature review, and analyzing quantitative data (Williams, 2007). Typically, researchers who study implicit bias would use a survey like Harvard University's *Implicit Association Test* (IAT) to quantify levels of implicit bias among participants. The test measures how quickly people can, for instance, associate people of African descent's faces with positive words versus European American faces with those same positive words (Bartlett, 2017). The IAT score does not predict an individual's discriminatory behavior and is not helpful as a diagnostic tool for legal situations (Blanton et al., 2006).

According to Blanton and Jaccard (2017), existing explicit measures of attitudes employed in implicit bias studies are not up to the task. Although clinicians may use the IAT to identify training needs, more is needed because analyzing situations on campus where implicit racial bias is routine can help identify behaviors for change (Jaramillo & Nohelty, 2022). The IAT might miss implicit racial bias because this conduct is often unconscious. Jaramillo and Nohelty (2022) posit that focusing on specific, socially significant behaviors may provide more valuable information to faculty and

administrators in assessing implicit racial biased acts than the results of the IAT. Due to this, the researcher developed a new instrument titled the *Implicit Racial Bias Higher Education Questionnaire* (IRBHEQ), specifically targeting and quantifying perceptions of implicit racial bias among students of African descent in academia.

It is unclear if current implicit measures can effectively parcel out unconscious cognition and affect. This chapter includes the procedures used to determine the reliability and validity of the newly created questionnaire. The instrument gathered data from all racial groups at the three academic institutions to learn more about implicit racial bias. This study only included those who responded to and completed the questionnaire.

Research Questions

Research Question 1

What is the relationship between students' perceptions of implicit racial bias and their grade point average (GPA)?

Hypotheses

H_0: There will be no significant relationship between students' perceptions of implicit racial bias and their grade point average (GPA).

Research Question 2

What is the relationship between students of African descent's perceptions of implicit racial bias and credits earned in predominantly White institutions (PWIs)?

Hypotheses

H_0: There will be no significant relationship between students of African descent's perceptions of implicit racial bias and their credits earned in predominantly White institutions (PWIs).

Research Question 3

How do implicit racial bias perception scores of students attending a PWI compare when considering gender and racial/ethnic identity?

Hypotheses

H_0: There will be no significant difference in implicit racial bias perception scores of students attending a PWI based on gender.

H_0: There will be no significant difference in implicit racial bias perception scores of students attending a PWI based on racial/ethnic identity.

H_0: There will be no interaction effect between students' gender and racial/ethnic identity.

Research Question 4

How do students of African descent and other students in PWIs compare in their perceptions of campus culture?

Hypotheses

H_0: There will be no significant difference in students' perceptions of campus culture when comparing students of African descent and other students in PWIs.

Methods and Procedures

Research Design and Data Analysis

According to Anfara et al. (2002), the research design answers the questions of who, what, when, where, how, and why. The study used a quantitative, non-experimental research design as there were no active independent variables and no random assignment of the subjects. Quantitative researchers usually base their work on the belief that the world is a single reality of discovered facts and the separation of facts and feelings

(Fraenkel et al., 2010). A non-experimental study has no control or treatment group since it assesses participants' qualities without seeking to modify them. This research design aimed to establish connections between variables to help explain critical human behaviors or predict likely outcomes (Fraenkel, et al., p. 326). Galvan and Galvan (2017) posit that non-experimental research examines the characteristics of individuals without seeking to change them. The continuous quantitative variables are the number of credits earned and grade point average (GPA). The categorical variables include gender, racial, and ethnic background. The specific designs used for the study were two-way ANOVAs and multiple regressions.

Quantitative research focuses on objectivity and is appropriate when there is the possibility of collecting quantifiable measures of variables and inferences from samples of a population due to structured procedures and formal instruments for data collection (Queirós et al., 2017, p. 370). Finally, in this study, the analysis of numerical data was performed using SPSS software.

Research question 1 determined the relationship between Black students' perceptions of implicit racial bias and their grade point average (GPA). The independent variable was the students of African descent's perception scores of implicit racial bias, which is a continuous variable. The dependent variable was the students' GPA scores. A simple linear regression was chosen to predict students' grade point averages based on their perceptions of implicit racial bias. The rationale for using a simple linear regression is when a variable is used to predict the value of a variable based on the value of one other variable. The alpha level of .05 was chosen to test for significance.

Six assumption tests were conducted to determine if the data were appropriate to use with a simple linear regression. The six assumption tests are: the relationship between the independent and dependent variables is linear, there is no multicollinearity in the data, the values of the residuals are independent, the values of the residuals are constant, the values of the residuals are normally distributed, and there are no influential cases (outliers) biasing the regression model.

Research question 2 evaluated the relationship between Black students' perceptions of implicit racial bias and the number of credits earned at PWIs. The independent variable was the students of African descent's perception scores of implicit racial bias, which is a continuous variable. The dependent variable was the number of credits earned. A simple linear regression was chosen to predict the number of credits earned based on their perceptions of implicit racial bias. The rationale for using a simple linear regression is when a variable is used to predict the value of a variable based on the value of one other variable. The alpha level of .05 was chosen to test for significance.

Six assumption tests were conducted to determine if the data were appropriate to use with a simple linear regression. The six assumption tests results were:

1. The relationship between the independent and dependent variables is linear.
2. There is no multicollinearity in the data.
3. The values of the residuals are independent.
4. The values of the residuals are constant.
5. The values of the residuals are normally distributed.
6. There are no influential cases (outliers) biasing the regression model.

Research question 3 asked how students of African descent's perceptions of implicit racial bias compare when considering gender and racial/ethnic identity. The independent variables were gender and racial/ethnic identity, which are qualitative categorical variables. Gender has three levels (male, female, other) and racial/ethnic identity has two levels (students of African descent and other students). The continuous dependent variable was the students of African descent's perception scores of implicit racial bias. A two-way between-subjects ANOVA was chosen to compare the mean differences between the groups that have been split into two independent variables. The rationale for using a two-way ANOVA is to understand if there is an interaction effect between the two independent variables on the dependent variable. The alpha level chosen to test for significance was .05.

Six assumption tests were run before conducting the two-way between-subjects ANOVA. They are:

1. The dependent variable must be measured at the continuous level.
2. The two independent variables must be two independent categorical variables.
3. There must be independence of observations, which means that there must be different participants in each group, with no participant being in more than one group.
4. There cannot be any significant outliers.
5. The dependent variable should be approximately normally distributed for each combination of the groups of the two independent variables.
6. There needs to be homogeneity of variances for each combination of the groups of the two independent variables.

Research question 4 calculated how students of African descent and other students in PWIs compare in their perceptions of campus culture. A one-way between-subjects analysis of variance (ANOVA) was chosen to determine whether there are statistically significant differences between the means of two or more independent (unrelated) groups. The independent variable was ethnic identity, a qualitative categorical variable. The rationale for choosing the one-way ANOVA was to compare the means of the two groups to determine a significant difference. The alpha level selected to test for significance was .05.

Six assumption tests were run before conducting the one-way between-subjects ANOVA. They are:

1. The dependent variable should be measured at the interval or ratio level; they are continuous.
2. The independent variable should consist of two or more categorical and independent groups.
3. There should be independent observations, which means there is no relationship between the observations/participants in each group or between the groups themselves.
4. There should be no significant outliers.
5. The dependent variable should be approximately normally distributed for each group/level of the independent variable.
6. There needs to be homogeneity of variances.

Reliability and Validity of the Research Design

There are known threats to a non-experimental research design. The first possible threat to the statistical conclusion validity of this study is low statistical power because the sample size may be inadequate, or irrelevant sources of variation are not controlled or isolated (Kirk, 2012). However, the researcher attempted to minimize this threat by standardizing the procedures for sending out the survey and gathering the returns to include as many possible returns as possible.

A possible internal threat to this design is selection because Black people from different countries and ethnic backgrounds may understand implicit racial bias differently. Idiosyncratic characteristics of the subjects may inflate the estimate of the error variance and result in not rejecting a false null hypothesis. Students' ability to understand the questions without assistance or knowledge of implicit racial bias can threaten statistical conclusion validity. The researcher included a definition in the questionnaire of implicit racial bias to provide every participant with a standard explanation of the term, which helps to minimize this internal threat. The researcher conducted the questionnaire remotely to limit the threat of location. This time and cost-effective method reached many respondents, offered the researcher a wide variety of data that could be gathered and evaluated, and ensured respondent anonymity. Since the participants can answer the questionnaire in a comfortable location of their choosing, it limits the internal threat.

An external validity threat of interaction of setting and treatment may have occurred, as the participants received the questionnaire online. The environment in which they took the questionnaire may have affected the results differently. Since the sites will

differ for each participant, this may restrict the generalizability of the results to settings that share the same characteristics. To address this threat, the researcher made sure to standardize the format and directions of the questionnaire.

The Sample and Population

The Research Sites

The study drew its sample and population from undergraduate students who attended three private, co-ed higher education institutions in a large metropolitan area in the northeastern United States. Since time was of the essence, the researcher chose sites that were accessible and convenient and would increase the questionnaire's range, reliability, and validity. The researcher works at the first institution (Brookline University), was employed at the second institution (St. Clare's College), and had close contacts there and attended the third institution (St. James University). The names of these schools are pseudonyms.

According to the Integrated Postsecondary Education Data System (IPEDS, 2023), Brookline University's fall 2021 enrollment was 59,144 students and 29,401 undergraduate students. Of the undergraduates, the data also showed that 49% were male and 50% were female. The racial demographics were 8% African American/ Black, 17% Hispanic/ Latino, 22% White, and 0% American Indian or Alaska Native.

St. Clare's College had a total enrollment of 2,489, of which 2,031 are undergraduates, 37.7% are male, and 62.3% are female. The college's fall 2021 IPEDS data shows 23% African American/ Black, 27% Hispanic/ Latino, 20.9% White, and 2% American Indian or Alaska Native of the school population.

St. James University's fall 2021 enrollment was a total of 19,658 students, 15,452 of them undergraduates, 10% African American/ Black, 14% Asian, 19% Hispanic/ Latino, 47% White, and 0% American Indian or Alaska Native (IPEDS, 2023). Of the total number of students, 44% are male, and 56% are women. Students of African descent (Black students) were the focus of the study, but the researcher sent the questionnaire to all college students from the three post-secondary institutions to gain perceptions from all students on racial implicit bias. Table 1 describes the research sites.

Table 1

Description of Research Sites

		St. Clare's College		Brookline University		St. James University	
		(n = 42)	%	*(n = 56)*	%	*(n = 54)*	%
Total		2,031		29,401		15,452	
Gender							
	Female	1265	62.3%	17,382	50%	8,768	56%
	Male	766	37.7%	12,019	49%	6,684	44%

The sample consisted of male and female undergraduate students from St. Clare's College, Brookline, and St. James Universities, as shown in Table 1. Highlighted in Table 2 are the racial demographics for each post-secondary institution. The three institutions are in a major metropolitan area in the Northeastern United States. All three academic institutions articulated their commitment to diversity, equity, and inclusion (DEI) as part of their mission and values.

Table 2

Racial Demographics

Race	St. Clare's College		Brookline University		St. James University	
	n	%	*n*	%	*n*	%
American Indian/ Alaskan Native	38	1%	46	0%	29	0%
Asian	62	4%	5,889	19%	2,703	14%
Black	483	23%	2,290	8%	2,066	10%
Hispanic	548	27%	4,838	17%	3,558	19%
Native Hawaiian/ Pacific Islander	2	1%	31	0%	23	0%
White	424	23%	6,404	22%	9,297	47%
Two or more races	49	2%	1,134	4%	710	4%
Race/unknown	86	4%	1,237	4%	651	4%
Non-resident alien	343	13%	7,532	24%	1,580	2%

The Sample

The researcher used convenience sampling in the current study. Fraenkel et al. (2010) posit that a convenience sample is a group of conveniently available individuals. When using convenience sampling, generalizations are more plausible if data shows that the sample is representative of the intended population on at least some relevant variables (Fraenkel et al., 2010). Convenience sampling (also known as Haphazard Sampling or Accidental Sampling) is a nonprobability or nonrandom sampling where members of the target population meet specific practical criteria, such as easy accessibility, geographical

proximity, availability at a given time, or the willingness to participate in the study (Etikan et al., 2016).

The researcher selected participants by connecting with student affairs and student government associations (SGA) groups at each participating academic institution. Identifying and fostering collaborations and thoroughly explaining the study's purpose, procedures, and impact on participants, along with IRB (Institutional Review Board) approvals from St. John's University and the three research sites, helped gain gatekeepers' trust (Joseph et al., 2016). A gatekeeper controls access to an institution or an organization, such as a school principal, managing director, or administrator (Singh & Wassenaar, 2016).

Population

The population of interest in this study was male and female undergraduate students, ages 18 and older, of all races and ethnicities attending a college or university in the United States, focusing on students of African descent. It used Asian, Hispanic, and White students as a comparison group. The researcher obtained participants by contacting the three institutions' professors and student affairs professionals. This approach reached a sizable number of subjects. The initial solicitation emails were written following IRB requirements to be as straightforward and transparent as possible to make it simpler for students to commit to participating in the study. The research survey used Qualtrics, an online platform that is fast, intuitive, secure, and user-friendly.

The study used the survey results from one college and two universities in a metropolitan area on the east coast of the U.S. The researcher distributed it during the spring semester of 2023. The researcher sent additional solicitation emails to faculty

members who ignored initial requests to distribute the IRBHEQ amongst their students once a week for six weeks. After completing the IRBHEQ, participants promptly received a thank you email.

A total number of 152 (n=152) undergraduate students completed the survey at St. Clare's College 42 (*n*=42), Brookline University 56 (*n*=56), and St. James University 54 (*n*=54). The racial/ethnic makeup and other demographic information of the students are presented in Tables 2 and 3. The population and setting to which the current study results are generalizable are students who attend private PWIs in a large urban city in the northeastern United States. The sample collected for the survey represents typical students who attend an undergraduate program at a private PWI and were interested in completing a survey that measured their perceptions of implicit racial bias at their academic institution.

Table 3

Race and Ethnicity of Participants

	N	%
Asian	27	17.8%
Black	46	30.3%
Hispanic	19	12.5%
White	47	30.9%
Other	13	8.6%
Total	152	

Instruments

In the current study, the researcher used a cross-sectional questionnaire called the *Implicit Racial Bias Higher Ed Questionnaire* (IRBHEQ) to measure students of African descent's experiences with implicit racial bias in colleges and universities. The researcher

developed a questionnaire integrating a critical race theory methodology with an instrument that targets and quantifies perceptions of implicit bias among students. Appendix III contains a copy of the informed consent form and questionnaire. The IRBHEQ measures participants' perceptions of implicit racial bias and its impact on their college experience. The IRBHEQ was created using the Qualtrics survey tool and was emailed to respondents.

Qualtrics is a cloud-based data management application that develops online questionnaires and meets the Health Insurance Portability and Accountability Act (HIPAA) security requirements. It has an easy-to-use web interface for producing questions and includes multiple-choice options, checkboxes, scale, grid, text, and options for recording data from multiple responses (Vasantha & Harinarayana, 2016). Through open-ended questions, the researcher sought to uncover examples of biases students experienced in policies, practices, and instructions in PWIs. The researcher used the publications highlighted in the literature review as an essential guide to create the questions in the questionnaire (IRBHEQ). The investigator sent the questionnaire to twenty-four college graduates to test it for reliability and validation. The IRBHEQ tests perceptions and experiences with implicit racial bias in all students. There was no relationship between the researcher and the participants.

Questionnaires like the IRBHEQ allow for collecting data directly from a person involved in the research through questions organized in a specific order. Questionnaires are one of the most used quantitative techniques since they allow obtaining information about a given phenomenon by formulating questions that reflect a group of individuals' opinions, perceptions, and behaviors (Queirós et al., 2017). Questionnaires offer several

benefits. Two of those most important benefits include the large representativeness of the entire population and the low cost of the method compared to other alternatives (2017). On the other end, the reliability of survey data depends on the survey structure and the accuracy of answers provided by the respondents (p. 381). The disadvantages of questionnaires are threefold:

1. Ensuring that the questions are clear and not misleading.
2. Getting respondents to answer questions thoughtfully and honestly.
3. Getting enough questionnaires completed and returned to enable meaningful analyses.

The primary benefit is that questionnaires can provide data gathered from many participants.

The results used in the current study came from a three-section questionnaire (IRBHEQ) (see Appendix A). Section 1 of the survey (questions 1 to 7) asked students to provide their gender, age, number of credits earned, undergraduate degree, grade point average, major, and race. Section 2 of the IRBHEQ contained fifteen questions using a 5-point Likert scale (1. = Strongly disagree, 2. = Disagree, 3. = Neutral, 4. = Agree, 5. = Strongly agree).

In section 3 of the survey, students completed two open-ended questions asking them about barriers to racial equity and inclusion at their undergraduate institution and how to improve their quality of life on campus. According to Reja et al. (2003), the advantages of open-ended questions include discovering the responses that individuals give spontaneously, thus avoiding the bias that may result from suggesting responses to individuals, which may occur in the case of close-ended questions.

The online questionnaire takes about 10 minutes to complete. Its' primary purpose was to define a population's characteristics and assess how members of that group distribute across variables such as age, ethnicity, and perceptions (Fraenkel et al., 2010). The researcher included a question about the participants' preferred racial-ethnic identity in the questionnaire (IRBHEQ) because despite sharing racial characteristics with native Blacks (students born of two African American parents), Black immigrants have distinct identities and cultures, which ultimately shape their perceptions of racial bias in the U.S. (Griffin et al.,2016).

Questionnaires are advantageous because they are easy to design, inexpensive, rely on statistical methods to provide accessible data, are highly representative, and are unaffected by the researcher's subjectivity (Queirós et al., 2017). A disadvantage is that questionnaires do not always capture respondents' emotions, behaviors, and changes in perspectives (Queirós et al., 2017).

Reliability and Validity of the IRBHEQ Questionnaire

A definition of implicit bias was included in the questionnaire to give each participant a mutual understanding of the term. The researcher standardized the questionnaire's format, instructions, and limited the number of questions to twenty-four to increase the reliability of the questionnaire's design.

Twenty-four educators who served as a judgment panel and were familiar with the research process received a copy of the questionnaire via email through the Qualtrics survey tool to check its validity and reliability. They tested the questionnaire to determine how long it would take to complete it and if the directions and questions were

straightforward. The judgment panel members reported that the IRBHEQ took five to ten minutes to finish and submit.

Reliability is consistency across time (test-retest reliability), across items (internal consistency), and researchers (interrater reliability). Reliability analysis was carried out on the perception questions comprised of 12 items. An inter-item reliability test was conducted using Cronbach's Alpha. Cronbach's Alpha is a reliability test conducted in SPSS to measure the internal consistency of the items from an instrument (Fraenkle et al., 2019). It is most commonly used when surveying with Likert scale items. The results revealed that the Implicit Racial Bias scale, with four items, had a Cronbach's alpha of $\alpha = .773$, and Beliefs of Critical Race Theory, with four items, had a Cronbach's alpha of $\alpha = .696$. Both were found adequately reliable for surveys. Similarly, School Climate with four items was found reliable with a Cronbach's alpha of $\alpha = .624$, although this reliability was slightly below .70. The reliability results are summarized in Table 4.

The validity is the extent to which the questions represent the intended variables (Jhangiani et al., 2015). Four peers on the judgment panel who understood the study's purpose and definition of implicit racial bias reviewed the questions for their content-related validity and found them to be clear in their content and format.

Table 4

Reliability Analysis

Constructs	Number of items	Alpha (α)
Implicit Racial Bias	4	.773
Beliefs of Critical Race Theory	4	.696
School Climate	4	.624

The IRBHEQ was administered remotely because it is more time and cost-efficient, reached a larger pool of respondents, and protected the respondents' confidentiality, as Qualtrics did not collect the email addresses. Also, only the researcher distributed the survey instrument to keep the collected data secure. Administering the questionnaire online offered respondents an anonymous, judgment-free zone to express their opinions and beliefs about implicit racial bias.

Procedures for Collecting Data

The researcher chose convenience sampling because it is affordable, accessible, and the subjects were readily available. Although quantitative researchers avoid convenience sampling, it is often the only option accessible to those with limited contacts and resources (Galvan & Galvan, 2017). Current undergraduate students who attend PWIs in the United States made up the sample of participants. Data were collected from April 11, 2023, through May 11, 2023, after approval from the St. John's University Institutional Review Board (Appendix A).

Next the researcher connected with gatekeepers, such as staff members in charge of student affairs, faculty, and administrators at Brookline University, St. Clare's College, and St. James University. To distribute the IRBHEQ to students at Brookline University, the researcher contacted the *Senior IRB Manager*, who said that since the St. James's University Institutional Review Board had already approved the study, approval to send surveys to students was not necessary at that PWI. The researcher subsequently sent an email to the Executive Director of the Center for Student Life at Brookline University, who recommended asking student affairs officials and school deans to share the questionnaire with their programs and students. Brookline University does not send

research study questionnaires out through their listservs because the volume would be too much to manage. Typically, researchers looking to do a study ask individuals in student-facing roles to share questionnaires with students. The researcher drafted an email that included a summary of the study with proper links to send to administrators directly connected to undergraduate students. The researcher also visited a classroom to introduce the survey to students.

At St. Clare's College, the researcher had access to personal contacts who could facilitate access to undergraduate students at the research site. There were insiders at the college with whom the researcher had a closer relationship than the respondents. Specifically, the researcher connected with professors and had them add the survey to the Canvas Learning Management System for students to complete. Faculty members at St. Clare's College gave students extra credit for participating in the study. Last, the researcher was a student at St. James University, a PWI; thus, it was relatively easy to comb the campus for participants on foot, email professors, staff members in charge of student affairs, and other administrators who had direct contact with students.

The students were self-selected to participate in this study on how gender, GPA, racial-ethnic background, and the number of credits earned impact students of African descent's perceptions of culturally implicit racial biases in PWIs. All the dependent variables on the questionnaire were self-reported; this included the GPA, number of credits earned, and perceptions of campus culture. There was no need to collect ID or merge data. The researcher removed respondents under eighteen years of age from the study because the population of interest in this study were male and female students, ages eighteen and older.

A sample of 224 undergraduate students (n = 224) received the IRBHEQ using the Qualtrics web-based platform, with the link arriving via email. Appendix A contains the informed consent form and questionnaire. The email contained the study's description, a digital consent letter, a prompt to accept or decline to participate, and a link to the IRBHEQ. After a week, the researcher sent a follow-up email to those who had not responded every Monday during a six-week period. The entire process occurred using email and a web browser. The researcher hoped to get at least 50 (n =50) responses from each participating academic institution, totaling 150 (n = 150). Seventy-two undergraduate students did not complete the survey. The researcher collected a final sample of 152 (n = 152) completed responses.

The Qualtrics instrument allowed the researcher to upload the results into the Statistical Package for the Social Sciences (SPSS) using a Microsoft Excel document. The current study used inferential statistical techniques to determine if gender, racial-ethnic background, and the number of credits earned impact students of African descent's perceptions of culturally implicit racial biases in PWIs. Inferential statistics are specific procedures that allow researchers to make inferences about a population based on the findings from a sample (Fraenkel, Wallen, & Hyun, 2019). The data was collected by forwarding a link via email and in person via QR-Code. The questionnaire and results were stored on Qualtrics' password-protected servers, which are backed up daily. The data was analyzed through SPSS.

Research Ethics

In the current study, the researcher recognized the potential ethical issues. Membership in the American Psychological Association (APA) committed the researcher

and student affiliates to follow the APA Ethics Code standards and the rules and procedures used to enforce them (apa.org, Ethical Principles of Psychologists and Code of Conduct). Before beginning data collection, an essential activity was getting permission from the Institutional Review Board (IRB) (Creswell & Poth, 2018, p. 151) and the post-secondary institutions.

The researcher took part in ethical behaviors at all stages of the process, as ethics must be at the forefront of the agenda (Creswell, 2012). The primary purpose was to keep participants safe by not disclosing potentially confidential information.
Participants received informed consent forms agreeing to the conditions of the study. The consent letter included the following:

- Identification of the purpose of the study
- Identification of the benefits of participating
- Notation of risks to the participant
- Guarantee of confidentiality to the participant
- Assurance that the participant can withdraw at any time.
- Assurance that their responses will be confidential and anonymous.
- Provision of names of people to contact if questions arise (Creswell, 2017).
- There is no deception of the participants by the researcher.

Conclusion

The research methodology, research questions, design and data analysis, sample and population, tools, data collection processes, and research ethics were all discussed in chapter three. The next chapter begins with a brief description of the participants and reports the data analysis results. The research questions, hypotheses, and statistical

analysis outcomes are shown. This study addressed the shortcomings in the existing literature by asking participants direct questions about implicit racial bias. It will broaden the conversation by examining additional factors impacting Black students' perceptions of culturally implicit racial biases in PWIs.

Equity in education and critical race theory (CRT) have recently been at the forefront of national/global awareness. This study seeks to identify implicit racial bias that shapes decisions colleges and universities make and the experiences their students have under that tutelage. The study can potentially reveal themes and topics for discussion that might not have been addressed at this time and in this space. If the subjects engage in self-reflection, recognize any bias that molds decisions that affect groups of students disproportionately, and work to make changes in those areas, the study has been impactful beyond the initial 224 participants.

CHAPTER 4 FINDINGS

The purpose of this non-experimental quantitative study was to examine how students' gender, GPA, racial-ethnic background, and the number of credits earned affected their perceptions of culturally implicit racial biases in PWIs. The sample consisted of 152 undergraduate students from three post-secondary institutions in the northeastern U.S. Their responses were used to examine their perceptions of implicit racial bias. In the current study, Chapter 4 presents the findings from the four research questions and two open-ended questions.

Results

Out of 224 undergraduate students (n = 224) who received the IRBHEQ, 152 (n = 152) students completed the questionnaire at St. Clare's College 42 (n = 42), Brookline University 56 (n = 56), and St. James University 54 (n = 54). The demographic data in the analysis included gender: 62 males (n = 62), 85 females (n = 85), and 5 other. Other consisted of any student who did not identify as Female or Male.

For racial demographics, there were 27 Asians (n = 27), 46 Blacks (n = 46), 19 Hispanic/ Latino (n = 19), 47 White (n = 47), and 13 students considered Other (n = 13). Other was made up of participants who selected American Indian or Alaskan, Native Hawaiian or Pacific Islander, Non-resident alien, and Race/ ethnicity unknown.

Research Question 1

The researcher used a simple linear regression analysis to predict students' GPAs based on their perceptions of implicit racial bias at their college or university. The rationale for using a simple linear regression is when we want to predict the value of a

variable based on the value of one other variable. There was only one continuous outcome dependent variable and one continuous predictor independent variable.

The research question was: What is the relationship between students' perceptions of implicit racial bias and their grade point average (GPA)?

The hypotheses chosen were:

H_0: There will be no significant relationship between students' perceptions of implicit racial bias and their grade point average (GPA). $\beta = 0$.

H_1: There will be a significant relationship between students' perceptions of implicit racial bias and their grade point average (GPA). $\beta \neq 0$.

The alpha level of .05 was chosen to test for significance.

The data were screened before running the simple linear regression analysis. There were no missing or miscoded values. Next, the assumption tests were conducted. The relationship between the independent and dependent variables was linear, as demonstrated by a scatterplot. The data had no multicollinearity as the VIF score was below 10 (total perception score = 1.0), and tolerance scores were above 0.2 (total perception score = 1.0). The residuals' values were independent, as noted by the Durbin-Watson statistic, which was close to 2 (Durbin-Watson = 2.072). The variance of the residuals was constant, which was identified by the plot showing no signs of funneling, which suggests the assumption of homoscedasticity has been met. The values of the residuals were normally distributed, evidenced by the P-P plot. Finally, no influential cases of biasing or outliers were evident in the data, which was verified by calculating Cook's Distance values, which were all under 1.00.

The researcher ran a simple linear regression analysis using SPSS, and the correlation of the independent variable (total score) was significantly correlated with the dependent variable, GPA, $r = .176$, $p = .015$. A significant regression equation was found F (1,150) = 4.82, $p = .030$, and accounted for approximately 3% of the variance of GPA, ($r^2 = .031$, adjusted $r^2 = .025$). A total perception score ($\beta = .176$, $p = .030$) predicted a student's GPA, as is shown in Table 5.

The statistically significant results indicated that the more heightened a student's perception scores of implicit racial bias, the higher their GPA. Results predicting a student's GPA were equal to the regression equation of: Predicted GPA = 2.775 + .195(total score). The null hypothesis was rejected.

Table 5

Summary of Simple Linear Regression Analysis for Total Perception Score Predicting Student's GPA

	GPA		
Variable	*B*	*SE B*	*β*
Total score	.195	.302	.176
r^2	.031		
F	4.82		

Note: *$p < .05$

Research Question 2

The researcher used a simple linear regression analysis to predict the number of credits earned based on their perceptions of implicit racial bias at their college or

university. There was only one continuous outcome dependent variable and one continuous predictor independent variable.

The research question was: What is the relationship of students' perceptions of implicit racial bias and credits earned in predominantly White institutions (PWIs)? The hypotheses chosen were:

H_0: There will be no significant relationship between students' perceptions of implicit racial bias and their credits earned in predominantly White institutions (PWIs).

H_1: There will be a significant relationship between students' perceptions of implicit racial bias and their credits earned in predominantly White institutions (PWIs). The alpha level of .05 was chosen to test for significance.

The data were screened before running the simple linear regression analysis. There were no missing or miscoded values. Next, the assumption tests were conducted. The relationship between the independent and dependent variables was linear, as demonstrated by a scatterplot. The data had no multicollinearity as the VIF score was below 10 (total perception score = 1.0), and tolerance scores were above 0.2 (total perception score = 1.0). The residuals' values were independent, as noted by the Durbin-Watson statistic, which was close to 2 (Durbin-Watson = 1.522). The variance of the residuals was constant, which was identified by the plot showing no signs of funneling, which suggests the assumption of homoscedasticity has been met. The observed standardized residuals were normally distributed. The Mean for credits earned was normally distributed. The values of the residuals were normally distributed, evidenced by the P-P plot. Finally, no influential cases of biasing or outliers were evident in the data, which was verified by calculating Cook's Distance values, which were all under 1.00.

The researcher ran a simple linear regression analysis using SPSS, and the correlation of the independent variable (total score) was not significantly correlated with the dependent variable, number of credits earned at a student's college or university r = .027, p = .373. A statistically significant regression equation was not found F (1,150) = .106, p = .746. A total perception score (β = .027, p = .746) does not predict the number of credits a student earns, as shown in Table 6. The null hypothesis was retained.

Table 6

Summary of Simple Linear Regression Analysis for Total Perception Score Predicting the Number of Credits Earned

	Credits Earned		
Variable	*B*	*SE B*	*β*
Total score	1.99	20.84	.027
r^2	.001		
F	.106		

Note: *p > .05.

Research Question 3

The researcher was interested in perceptions of implicit racial bias among college and university students in a large metropolitan area of the U.S. by gender and race. Participants were from five different racial categories: Asian (coded 5), Black (coded 6), Hispanic (coded 7), White (coded 9), and Other (coded 13). Other was made up of participants who selected American Indian or Alaskan, Native Hawaiian or Pacific Islander, Non-resident alien, and Race/ ethnicity unknown. Gender was coded as Male

(coded 1), Female (coded 2), and Other (coded 3). Under the variable gender, Other consisted of any student who did not identify as Female or Male.

All 152 participants completed an *Implicit Racial Bias Higher Ed Questionnaire* (IRBHEQ), of which the total perception score served as the dependent variable. Race and gender were the two categorical independent variables with five and three levels, respectively. A score of zero meant that a student experienced little to no implicit racial bias at their higher education institution. In contrast, the maximum score of 5 reflected repeated experiences with implicit racial bias at their college or university.

The researcher chose the following research question and hypotheses: How do implicit racial bias perception scores of students attending a PWI compare when considering gender and racial/ethnic identity?

H_0: There will be no significant difference in implicit racial bias perception scores of students attending a PWI based on gender.

H_1: There will be a significant difference in implicit racial bias perception scores of students attending a PWI based on gender.

H_0: There will be no significant difference in implicit racial bias perception scores of students attending a PWI based on racial/ethnic identity.

H_1: There will be a significant difference in implicit racial bias perception scores of students attending a PWI based on racial/ethnic identity.

H_0: There will be no interaction effect between students' gender and racial/ethnic identity.

H_1: There will be an interaction effect between students' gender and racial/ethnic identity.

The researcher chose a two-way between-subjects ANOVA to analyze the data and answer the research question. This was an appropriate statistical analysis since there were two independent variables with categorical levels (race and gender) and a continuous dependent variable (total score). A score of zero meant that a student had a low awareness or was satisfied with the racial climate at their college or university, while the maximum score of 5 reflected that the student had a heightened awareness of implicit racial bias on campus (Range 0-5).

The rationale for choosing the two-way between-subjects ANOVA was to compare the mean differences between groups that were split on two factors and to understand if there was an interaction between the two independent variables on the dependent variable. An alpha level of .05 was chosen to test for significance. There were no miscoded values or outliers found in the data.

The assumption tests for a two-way between-subjects ANOVA were conducted before running the statistical analysis. The dependent variable (total score) was measured on a continuous scale. The two independent variables, race (Asian, Black, Hispanic, White, and Other), and gender (male, female, and other), were categorical with three and two levels, respectively. There was independence of observations as there were different participants in each level of each group. The test for normality indicated that the data were normally distributed. This was evident by examining the histogram results and the non-significant Shapiro-Wilk test results (For Race: Asian, $p = .457$, Black, $p = .228$, Hispanic, $p = .371$, Other, $p = .232$ and for Gender: Other, $p = .253$). The test for homogeneity of variance was not significant, as evident by Levene's Test of Equality of Variance result, $F(11,139) = 1.6$, $p = .109$); therefore, the assumption was met.

Results for the study indicated a non-significant interaction effect between gender and race, $F(6,139) = 1.121$, $p = .353$. The null hypothesis for the interaction effect was accepted. The main effect of race did not show a significant difference in the total perception scores, $F(4,139) = .958$, $p = .433$, as is shown in Table 7. The null hypothesis for race was retained. The main effect of gender showed a significant difference in the total perception scores, $F(2,139) = 3.35$, $p = .038$, with an effect size of $\eta^2 = .021$, which is small. The null hypothesis was rejected.

Table 7

A Two-Way Analysis of Variance of Total Perception Scores Based on Gender and Race

Source	*SS*	*df*	*MS*	*F*	*p*
Gender	1.786	2	.893	3.350	.038
Race	1.021	4	.255	.958	.433
Gender * Race	1.793	6	.299	1.121	.353
Within Error	37.059	139	.267		
Corrected Total	43.303	151			

The main effect of gender was significant; therefore, the post hoc was conducted. The Tukey post-hoc revealed a significant mean difference between males and females ($MD = .270$, $SE = .08624$, $p = .006$). There was no significant mean difference for males and others ($MD = .459$, $SE = .240$, $p = .139$). There was no significant mean difference for females and those in the other category ($MD = .189$, $SE = .238$, $p = .707$). The gender groups of Other had the highest mean scores ($M = 3.655$, $SD = .252$), followed by Females ($M = 3.466$, $SD = .535$), and the lowest were Males ($M = 3.196$. $SD = .511$), as is shown in Table 8. These findings indicated that students who identified as Other in the gender category had higher perceptions of implicit racial bias than those identifying as

Females or Males. Those identified as Females had higher perceptions of implicit racial bias than Males.

Table 8

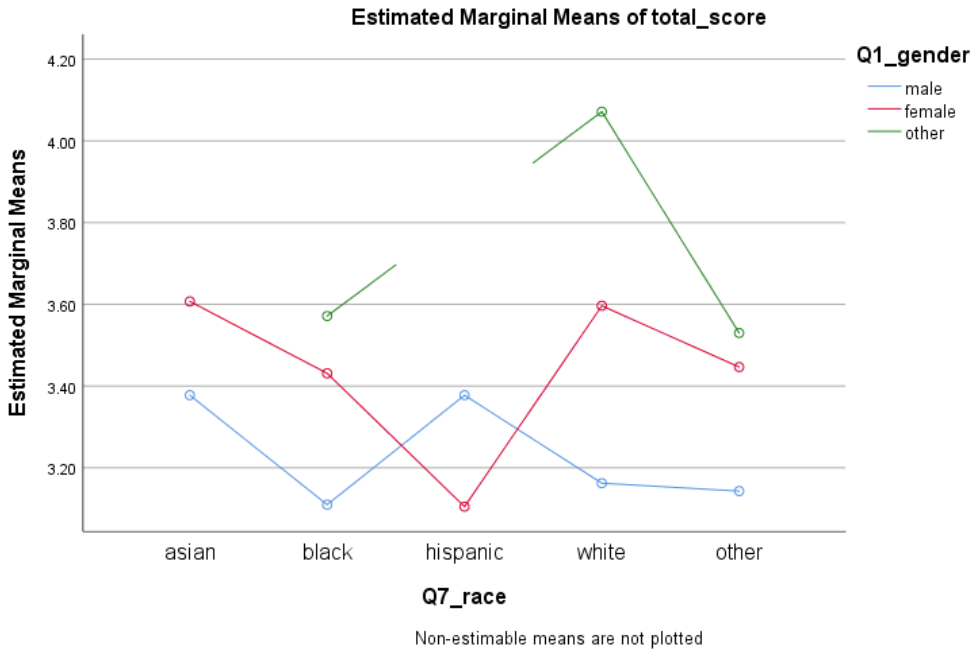
Descriptive Statistics for Gender

Gender	*N*	*M*	*SD*
Male	62	3.196	.511
Female	85	3.466	.535
Other	5	3.655	.252
Total	152		

The significant results in the study indicated that females (Asian, Black, Other, and White) are more likely to have higher perceptions of implicit racial bias than their male peers. Also, those who considered themselves White and Other had the highest mean scores, as is shown in Figure 2. There were no significant differences between Asian, Black, White, and other students' total perception scores.

Figure 2

Patterns Found in the Interaction Effect Between Race and Gender



Research Question 4

The researcher chose the following research question and hypotheses: How do students of African descent and other students in PWIs compare in their perceptions of campus culture?

H_0: There will be no significant difference in students' perceptions of campus culture when comparing students of African descent and other students in PWIs.

H_1: There will be a significant difference in students' perceptions of campus culture when comparing students of African descent and other students in PWIs.

A one-way between-subjects ANOVA was chosen as the appropriate analysis to determine whether there were any statistically significant differences between Black and

Other students based on their feelings about campus culture. An alpha level of .05 was chosen for testing the significance.

Before running the statistical analysis, the data were screened. There were no missing values or coding errors. The six assumption tests were then run to determine if the data were appropriate to use with the one-way ANOVA. The dependent variable, campus culture, was continuous. The independent variable, grade, was nominal with two levels (Other coded 0 and Black coded 1).

There were no outliers, as was determined by converting the dependent variable scores to z scores for each group. Each group with the dependent variable displayed a normal distribution on a histogram, and the Shapiro-Wilk values were non-significant for Black students (p = .228).

The one-way ANOVA was then conducted. There was no statistically significant difference between the groups $F(1,150) = 2.06$, p = .153, as shown in Table 9. The null hypothesis was retained. There are no significant differences in students' perceptions of campus culture when comparing students of African descent and other students.

Table 9

ANOVA Results of Campus Culture Scores Based on Black and Other Races

Source	*SS*	*df*	*MS*	*F*	*p*
Between Groups	2.662	1	2.652	2.060	.153
Within Groups		150	1.288		
Total					

The data in Table 10 are intriguing enough to be included and further explored. Participants' responses to Likert-scale questions 9, 10, 16, 18, and 20 of the IRBHEQ support the current study's quantitative findings, which found no significant

differences between students of African descent and other students' perceptions of campus culture. The researcher lacked critical number of students of African descent to disaggregate their ethnic data.

Table 10

Responses to Likert-scale Questions 9, 10, 16, 18, and 20 of the IRBHEQ

Question	Strongly agree/ agree	Strongly disagree/ disagree
Q9. My undergraduate institution is welcoming and inclusive to Black students and those of all colors and ethnicities.	20 (41%)	11 (22%)
Q10. Overall, the faculty represents the racial-ethnic diversity of the student body at my college or university.	11 (22%)	25 (51%)
Q16. I wish my undergraduate institution did more to address racism and implicit racial bias on campus.	26 (53%)	7 (14%)
Q18. There are efforts to encourage students to respect and interact with students of different racial and ethnic backgrounds at my college or university.	23 (47%)	16 (32%)
Q20. Faculty members support and mentor students of all backgrounds outside of the classroom.	20 (41%)	15 (31%)

Findings to From the Open-ended Questions

The researcher analyzed the responses to the open-ended qualitative questions from the IRBHEQ and categorized them into themes.

The questions were as follows:

- Q23. What were some of the barriers to racial equity and inclusion at your undergraduate institution?
- Q24. Is there anything your university or college can do to improve students' quality of life on campus?

Students' answers to the questions addressing barriers to racial equity and inclusion and ways to enhance students' quality of life at their undergraduate institution presented a rich assortment of themes and storylines. Respondents were free to provide as much detail as they wanted in their answers. The following themes emerged from the data: 1) affordability, 2) DEI training of staff/faculty, 3) lack of diversity, 4) limited opportunities, and 5) Whites being left out. The additional information provided by the two questions qualifies and clarifies students' perceptions, resulting in a richer narrative that could support the quantitative data. Table 11 summarizes those themes and provides a sample of students' responses.

Table 11

Themes From Student Responses to the Open-ended Questions With Student Responses

Race	Question	Theme	Quote
Black - Female	Q23	DEI training of Staff/ Faculty	*Students have made more significant efforts to create programs and events to address racial inequities than faculty and staff.*
	Q24	DEI training of Staff/ Faculty	*Embed information about all races in the curriculum and make it mandatory.*
Hispanic - Female	Q23	DEI training of Staff/ Faculty	*I often find myself in history courses that address a very Eurocentric perspective.*
	Q24	DEI training of Staff/ Faculty	*Educating the new generation of teachers on the history of everyone can help us have different perspectives.*
Black - Female	Q23	Limited opportunities	*Limited opportunities for BIPOC students in STEM fields.*
	Q24	Limited opportunities	*Increase number of internships for Black Students*
Asian - Female	Q23	Lack of diversity	*Many of the faculty and board of trustees are White men. Adding more BIPOC and women to the board would help.*
	Q24	Lack of diversity	*The student body is diverse, but the diversity of faculty and staff is questionable.*
Black - Male	Q23	Affordability	*One barrier is the financial barrier.*
	Q24	Affordability	*Decrease the amount that we must pay for tuition.*
White - Male	Q23	Lack of diversity	*Lack of diversity among faculty and staff.*
	Q24	Affordability	*Offer more affordable housing options.*
Hispanic - Female	Q23	DEI training of Staff/ Faculty	*While there is a diverse set of cultures and ethnicities, it often feels as though there's little effort to meaningfully integrate these identities into our student life*

Table 11 (continued)

Race	Question	Theme	Quote
	Q24	Lack of diversity	*I wish faculty possessed greater racial diversity. Being a non-White Latina, I haven't been taught by a professor that mirrored my ethnic or racial identity. My professors have been predominately White or White-passing.*
			I feel that there would be a greater feeling of being seen and having my identity and intellectual worth validated if I could see myself in the faculty.
White - Female	Q23	Lack of diversity	*The institution is predominantly White; the culture and community are homogeneous compared to a more populous state/city. Inherently, there is less diversity of students and professors, and while there was a significant effort from the professors I had, there needed to be more diversity of thought. This builds barriers for BIPOC individuals entering the community and feeling welcome and safe.*
	Q24	Affordability	*Offer more scholarships to out-of-state students (though the school cost is already lower than most peers); increase cross-program activities; encourage more study abroad or domestic/international exchanges for students.*
Black - Male	Q23	Lack of diversity	*BIPOC Administrators usually serve in roles related to DEI work but rarely serve as Deans, Provosts, Presidents, etc. to truly push and dismantle the barriers students of color face; faculty and administrators cannot be restricted to serving "social justice" roles.*
White - Male	Q23	Whites being left out	*As a White student, the perception of being left out of the programs tailored to address the needs of minority groups can be challenging.*
	Q24	Whites being left out	*End race-based policies and initiatives and allow people to be judged on merit.*

Conclusion

The researcher explored and analyzed all data that were collected from the *Implicit Racial Bias Higher Ed Questionnaire* (IRBHEQ) to determine any statistically significant findings on how gender, GPA, racial-ethnic background, and credits earned impact students' perceptions of culturally implicit racial biases at predominately White institutions. In addition, results from the open-ended survey questions were analyzed, coded, and categorized into themes. Chapter 5 will interpret the findings of this study in the context of the conceptual and theoretical framework and the related literature reviewed in Chapter 2. It provides the limitations of the results and discusses recommendations for future practice and research.

CHAPTER 5 DISCUSSION

This quantitative study examined how gender, GPA, racial-ethnic background, and credits earned impact students' perceptions of culturally implicit racial biases in predominantly White institutions. This chapter discusses the findings from the four research questions in the current study.

The results and findings from Chapter 4 provided context for the discussion and conclusion in this last chapter. The discussion of findings will connect with the theoretical framework and include connections to the literature review from Chapter 2. Finally, the chapter will discuss the limitations and recommendations for future practice and research.

Implications of Findings

In the conceptual framework, the researcher revealed how Implicit racial bias became entrenched in the college and university system because of an unapologetic culture of racism in the United States resulting from the enslavement of people of African descent. The quantitative findings support the fundamental concepts of critical race theory (CRT). The qualitative phase encouraged participants to express themselves in their own words. The anonymous nature of an online questionnaire allowed them to feel more comfortable sharing their opinions without being constrained by predefined quantitative options. Students had the opportunity to fully articulate their views and provide context, leading to a richer understanding of their perspectives.

Understanding students' perceptions of implicit racial bias can aid in developing a curriculum that encourages students to think beyond their own cultural and individual experiences to collaborate more effectively in multicultural post-secondary settings.

The more involved students were on campus, the less likely they were to be victims, bystanders, or naive, and the more likely they were to speak out about explicit and implicit racial bias. According to Wong et al. (2021), providing mandatory workshops on equality, diversity, and inclusion to all college and university students and staff is beneficial in addressing racism on campus. Their recommendations align with the findings of the current study, which indicate that the more heightened a student's perception scores of implicit racial bias, the higher their GPA. Students of African descent are likely to perceive a positive campus culture and perform consistently with their academic abilities when their institution fosters a positive racial climate and provides Black faculty and staff to serve as mentors (King & Ford, 2003).

Another finding from the current study indicated that students who identified as Other in the gender category had higher perceptions and more experience with implicit racial bias than those identifying as Female or Male. Those identified as Females had higher perceptions of implicit racial bias than Males. These results may indicate that students who do not identify with the binary gender roles and females may have higher associations with discrimination on campus and require additional study.

The researcher also used a CRT perspective to demonstrate how the central themes of lack of affordability, need for DEI training of staff/faculty, lack of diversity, limited opportunities for BOPIC students, and White students being left out confirm that the current institutional and systemic inequalities in education protect White supremacy and maintain the racial hierarchy. These themes prove that academic environments are historically Eurocentric in their learning priorities, and there is a need for active efforts to

broaden these priorities to be more relevant to students of African descent and minoritized groups and more informative to the larger student body (Williams, 2019).

Affordability

In the answer to the open-ended questions, a Black student expressed that a barrier to racial equity and inclusion for him was financial. As Knox (2023) points out, indebtedness to for-profit institutions is more prevalent among students of African descent than other groups. Institutional aid targeted at students of African and other minoritized groups may communicate that institution's commitment to increasing minority enrollment, suggesting the predominately White institution is a welcoming place (King & Ford, 2003, p. 72). Even so, accessing higher education is still difficult for students of African descent. A study conducted by Chen and DesJardins (2010) shows that among non-grant recipients, minority students tend to have higher chances of dropping out than Whites. Their research suggests improved access to financial resources can narrow the opportunity gaps between minorities and Whites in college (Chen & DesJardins, 2010).

DEI Training of Staff/ Faculty

A student who identified as a Black female wrote, "Embed information about all races in the curriculum and make it mandatory." Starck et al. (2020) found that teachers' racial attitudes largely reflect those held within their broader society. This was also noted by Costner et al. (2010), who found that faculty were reluctant to use Afrocentric pedagogical practices.

PWIs need to incorporate the perspectives and beliefs of students of African descent and other minoritized groups into the campus culture and curriculum. They

should ensure that Black and Latinx diversity equity and inclusion officers receive adequate support to carry out their duties with full institutional support instead of making them figureheads (Engram & Mayer, 2023). A student who identified as Black echoed Engram and Mayer's sentiment by stating that BIPOC administrators typically serve in DEI roles but rarely serve as deans, provosts, or presidents. The student acknowledged that in order to push and dismantle the barriers students of color face, faculty and administrators cannot merely serve in social justice roles.

Lack of Diversity

Even if most of its students are non-White, a college or university can continue to uphold White and Eurocentric racial and cultural standards because of a predominantly White faculty, leadership, and staff. A Hispanic female student responded to Q23 by stating, "While my student population accounts for a diverse set of cultures and ethnicities, it often feels as though there's little effort to meaningfully integrate these identities into our student life." In a study by Lewis and Shah (2021), participants expressed that they believed the university implemented diversity and inclusion initiatives on a superficial and tokenistic level rather than to legitimately promote social and racial justice. The racial/ethnic composition of faculty is determined not only by hiring practices but also by retention and promotion (Fries-Britt et al., 2011).

The Hispanic female student mentioned above also wrote, **"**I feel that there would be a greater feeling of being seen and having my identity and intellectual worth validated if I could see myself in the faculty I interact with." When those in power create diversity and inclusion initiatives but do not understand how White supremacy and racial

hierarchies influence higher education institutions, their policies and programs amount to superficial approaches that can be harmful to students (Lewis & Shah, 2021).

According to King and Ford (2003), the findings suggest that it is vital for students of African descent to have faculty and staff with whom they can identify activities that reflect their cultural interests and the institution's stance toward diversity. Students of African descent and other minority students are likely to perceive a positive campus environment and perform consistently with their academic abilities when their institution fosters a positive racial climate and provides faculty and staff of African descent to serve as mentors (King & Ford, 2003).

Limited Opportunities

When responding to the open-ended questions for Q23, a student who identified herself as a Black female wrote, "Limited opportunities for BIPOC students in STEM fields," and for Q24, she added, "Increase the number of internships for Black Students. In their study, Hora et al. (2019) observed that the main obstacles for students securing internship opportunities were scheduling conflicts (with paid work and coursework), the impracticality of unpaid internships, and the shortage of internships for students in particular disciplines, which disadvantages students lacking social connections or not attending prestigious universities.

The positive effects of internships on educational and employment outcomes were highlighted in a report by Frenette (2015), who also points out that economically disadvantaged groups, such as women, Blacks, Hispanics/Latinos, and first-generation college graduates, hold a disproportionate share of unpaid internships, which appear to be much less advantageous. According to Lake (2023), post-secondary institutions should

create structured programs to provide Black students with internships and study abroad experiences because those who participate gain more confidence in their abilities and stretch out of their comfort zone (p. 154).

Whites Being Left Out

While implementing equitable standards on campus, White students may feel left out. Post-secondary institutions should take steps to ensure White students do not feel excluded when seeking to foster a racially inclusive campus culture. A study by Shearman et al. (2023) found that White students faced more opposition to integration from their significant others than SOC. The responses to questions 23 and 24 demonstrate how diversity and inclusion efforts at PWIs sometimes come across as agenda items on a checklist that defend and perpetuate institutionalized racism and Whiteness instead of bringing about real change concerning equity.

Relationship to Prior Research

The current study confirms research by King and Ford (2003), who found that Black and other minority students are likely to perceive a positive campus environment and perform consistently with their academic abilities when their institution fosters a positive racial climate. Their recommendations align with the findings of the current study, which indicate that the more heightened a student's perception scores of implicit racial bias, the higher their GPA. In the present study, over 50% of the students of African descent surveyed did not feel their academic institution was welcoming and inclusive to Black students and those of all colors and ethnicities. Students of African descent are also likelier to perceive a positive campus culture and perform consistently

with their academic abilities when their institution fosters a positive racial climate and provides Black faculty and staff to serve as mentors (King & Ford, 2003).

This study extends the quantitative research by Shearman et al. (2023) that investigated college students' perceptions of campus climate and racial integration. The significant relationship between racial school climate and students' ethnicity suggests that racial school climate has a more meaningful impact on students of color (SOC) and that positive school climates promote integration (Shearman et al., 2023).

The study also extends Franklin's (2016) assertion that whether intentional or not, racial microaggressions convey to historically underrepresented and marginalized groups that they are not welcome on college campuses. The answers to the two open-ended and four research questions revealed that working with students and faculty is crucial to dissecting and analyzing the culture of implicit racial bias that continues to make students of African descent and members of underrepresented groups feel excluded, unseen, and underrepresented. The researchers found that implicit racial bias detracts from the success and well-being of racial minorities (Franklin, 2016). The responses to Q23 and Q24 support findings from Campbell et al. (2019) that students of African descent who viewed the world through a cultural lens were more likely to recognize situations as racially motivated. Griffin et al. (2016) found subtle distinctions by ethnicity and nativity in how Black students view diversity on campus, influencing their perceptions of climate and how they engage across differences. The findings suggested that Black immigrant students, especially those in the second or 2.5 generation, experienced and perceived CRC in ways like native Black participants do.

Participants struggling with the cost of college attendance align with Espinosa et al. (2019), who found that Black undergraduates were more likely than other students to get government scholarships and loans but finished with the highest student loan debt. Colleges and University leaders should lobby for financial relief for low-income students.

The current research filled a gap in the literature by focusing on the perceptions of students of African descent in postsecondary institutions. The findings support the fundamental concepts of critical race theory, which maintains that racism is the norm in the U.S. educational system, liberalism's pursuit of justice and equality diverts attention from White people's need to acknowledge the benefits they obtain from a racialized society they created, White people profit from legislation purportedly passed to assist Black people, CRT is an essential field of study for educators, and CRT continues to evolve, and that educators should recognize how understanding race and racism is necessary for a globalized society. Generally, students of African descent and other minoritized students did not feel that faculty represented the racial-ethnic diversity of the student body at their college or university. Like Campbell's (2019) study, the current research found that race matters at the individual level in colleges and universities, and campus climate impacts groups differently.

Limitations of the Study

The researcher addresses and acknowledges the current study's limitations in this section. Threats to the internal, external, and statistical conclusion validity may have constrained the findings. The first limitation was the subjects' idiosyncratic characteristics may have affected the results. The second was the small sample size may impact the extent to which the researcher can generalize the findings. A larger sample

size may have revealed statistically significant differences in students' perceptions of campus culture when comparing students of African descent and other races. The current study surprisingly did not yield any statistically significant differences in students' perceptions of campus culture when comparing students of African descent and other races. Perhaps it was because 46 out of the 152 student participants were of African descent. The low number of students of African descent (n=46) in the study may also have limited its generalizability. The researcher also lacked enough participants to disaggregate the ethnic data on students of African descent.

Lastly, the setting in which students filled out the questionnaires may also have restricted the generalizability of the results to other academic and private institutions of higher education. Brookline University, St. Clare's College, and St. James University were all institutions in a large city; this could have impacted students' perceptions of diversity, equity, and inclusion. Institutions in highly diverse locations may influence these outcomes because studying in a multicultural learning environment helps students better understand people whose experiences and viewpoints are different from their own (Paredes-Collins, 2009).

Recommendations for Future Practice

Based on the findings and conclusions of the study, the researcher recommends the following for future practice to practitioners and policymakers. Post-secondary institutions might benefit from introducing asset-based approaches that acknowledge and appreciate the knowledge and skills students bring to the classroom through their social and community networks, much like Spelman College (Younge et al., 2021). Garoutte and McCarthy-Gilmore (2014) found that students who participate in asset-based work

better understand the concept of community and how individuals are connected to their community, thus making asset-based activities useful for classes that explore social work, criminal justice, language study, and education as well as other areas of study (p. 58). Colleges and universities can also utilize conversations about implicit racial bias, campus racial climate, and culturally relevant curriculums and pedagogy to create race-conscious programs that address and dispel prevailing negative stereotypes about students of African descent (Franklin, 2016).

Another recommendation is to work with students and faculty to explore and dissect the culture that continues to make students of African descent and underrepresented students feel left out or unseen, unheard, and underrepresented. To achieve this, higher education institutions should provide leadership, administrators, and faculty with professional development opportunities so they may employ CRT principles to improve practices, policies, and teaching methods.

A final recommendation is that higher education institutions include African Americans' culture and history as part of the history of the United States in their curriculum rather than as an independent discipline. Today, White administrators, faculty, staff, and students are reluctant to incorporate Black values, interests, or history into their core culture at many PWIs, where activities reflect White interests and traditions (Feagin & Sikes, 1995).

Recommendations for Future Research

In a future study, the researcher should analyze students' perceptions of implicit racial bias from a PWI that employs an asset-based approach to teaching and development. In addition, the differences in the institution's diversity, equity, and

inclusion policies should be examined. Another recommendation for future study is to examine public university students' perceptions of implicit racial bias. Also, the instrument should provide participants with follow-up qualitative questions to shed light on specific responses to selected 5-point Likert scale items.

Lastly, the researcher can also compare perceptions of implicit racial bias among different ethnic groups of African descent. It would be worthwhile to explore how Africans, Afro-Caribbeans, African Americans, and Afro-Latinos perceive implicit racial bias in colleges and universities in the United States. Each nationality from the African diaspora may have its distinctive understanding and perception of race and implicit racial bias.

Conclusion

This non-experimental quantitative research examined how students' gender, GPA, racial-ethnic background, and the number of credits earned impacted their perceptions of culturally implicit racial biases in PWIs. The quantitative data from the questionnaire indicate that St. Clare's College, Brookline University, and St. James University have taken steps to make students feel welcome.

The answers to the two open-ended and four research questions revealed that working with students and faculty is crucial to dissecting and analyzing the culture of implicit racial bias that continues to make students of African descent and members of underrepresented groups feel excluded, unseen, and underrepresented. Faculty and staff are also not equipped to address racial microaggressions, White supremacy, and address the needs of students of African descent on campus.

The findings from the current study led to several recommendations for future research and practice. According to the responses from the questionnaire, all three academic institutions are attempting to assist and boost student performance and improve campus culture. However, to genuinely support students of African descent, colleges and universities should employ an asset-based approach to education, provide professional development for a diverse student body, faculty, and staff, and teach from various perspectives. Breese et al. (2023) posit that educators benefit from professional development, continuing education, and training on biases, diversity, and multiculturalism taught through a CRT lens to help learn specific interventions and practices to serve students better (p. 11). When asked if your university or college can do anything to improve students' quality of life on campus, a participant reiterated this sentiment and wrote, "Educating the new generation of teachers on the history of everyone can help us have different perspectives."

The researcher acknowledges and concludes that racism and White supremacy is baked into the culture and academic system of the United States. Examples of this exist on the walls and campuses of the ivory tower, which brazenly display paintings, pictures, statues, and names of White men who clung to White supremacy. In the 21st century, the contributions of people of African descent and their culture live outside of a legitimized Americanness. In the U.S., college and university students must acknowledge Greek, Roman, and European history as accurate and irrefutable. At the same time, faculty and required reading teach content like prehistoric, and ancient Egyptian history outside of their African context. Even though colleges and universities cannot change their past histories of exclusion, they can still take steps to ensure diversity by being transparent

about an institution's history of exclusion and the detrimental impact that this history has had on the campus (Hurtado et al., 1998). Post-secondary institutions have the ability to meet the obligations set in their missions and develop the whole student. Technology affords them the ability to teach and develop students over great distances and into a diverse and inclusive future.

APPENDIX A IRB APPROVAL

Federal Wide Assurance: FWA00009066

Feb 6, 2023, 3:46:25 PM EST

PI: Edwin Mathieu
CO-PI: Joan Birringer-Haig
The School of Education, Ed Admin & Instruc Leadership

Re: Expedited Review - Initial - **IRB-FY2023-70** *Impact of Implicit Racial Bias on Students of African Descent in Predominately White Institutions*

Dear Edwin Mathieu:

The St John's University Institutional Review Board has rendered the decision below for *Impact of Implicit Racial Bias on Students of African Descent in Predominately White Institutions*. The approval is effective from February 6, 2023, through February 5, 2024.

Decision: Approved

PLEASE NOTE: If you have collected any data prior to this approval date, the data must be discarded.

Selected Category:

Sincerely,

Raymond DiGiuseppe, PhD, ABPP
Chair, Institutional Review Board
Professor of Psychology

APPENDIX B CONSENT LETTER & SURVEY

Implicit Racial Bias Higher Education Questionnaire (IRBHEQ)

Dear Participant,

My name is Edwin Mathieu, and I am a doctoral student at St. John's University in the Department of Administrative and Instructional Leadership, Queens, NY. You are invited to participate in a research study I am conducting for my dissertation. The *Implicit Racial Bias Higher Education Questionnaire* (IRBHEQ) will only take approximately 5 - 10 minutes to complete.

PURPOSE OF THE STUDY
This study examines how students' gender, racial-ethnic background, and the number of credits earned impact their perceptions of culturally implicit racial biases in predominantly White institutions. This study focuses on students' experiences and perceptions of their undergraduate college/university programs. The Kirwan Institute for the Study of Race and Ethnicity defines implicit bias as stereotypes residing deep in the subconscious that affect our understanding, actions, and decisions in an unconscious manner (Staats et al., 2015, p. 62).

This study is looking for students of all races/ethnicities to participate.

POTENTIAL BENEFITS TO PARTICIPANTS AND/OR TO SOCIETY
The study's results will guide and inform colleges and universities on how their racially implicit practices and policies adversely impact students of African descent.

POTENTIAL RISKS AND DISCOMFORTS
There are no known risks or discomfort for participating in this study.

PAYMENT/COMPENSATION FOR PARTICIPATION
There will be no compensation for your participation in the study.

CONFIDENTIALITY
The data you provide in this questionnaire will be kept confidential and used for research purposes only. Your name and institution will remain anonymous, as your email address in this questionnaire does not collect your email.

PARTICIPATION AND WITHDRAWAL
Participation in this study is strictly voluntary. As a participant, you can withdraw from this study at any time or refuse to answer any questions you wish without penalty. Taking this survey is your consent to participate in the study.

Researcher: Edwin Mathieu | [redacted]

APPENDIX C IRBHEQ

Q1. **Gender**
1. Male
2. Female
3. Other

Q2. **Age**
1. Over 18
2. Under 18

Q3. **Number of Credits Earned (ex: 32)**

Q4. **Undergraduate Degree Earned (If the question doesn't apply, write N.A.)**

Q5. **Undergraduate GPA**

Q6. **Major in College/ University (ex. Agriculture)**

Q7. **My racial and ethnic background is:**
1. African
2. African American
3. Afro-Caribbean
4. American Indian or Alaskan
5. Asian
6. Black
7. Hispanic/ Latino
8. Native Hawaiian or Pacific Islander
9. White
10. Two or more races
11. Race/ ethnicity unknown
12. Non-resident alien

Q8. **I understand what implicit racial bias is.**
1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

Q9. **My undergraduate institution is welcoming and inclusive to Black students and those of all colors and ethnicities.**
1. Strongly disagree
2. Disagree
3. Neutral

4. Agree
5. Strongly agree

Q10. **Overall, the faculty represents the racial-ethnic diversity of the student body at my college or university.**
1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

Q11. **Implicit racial bias impacts interactions between students and faculty at my college/ university.**
1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

Q12. **Racially biased policies exist at my college/ university.**
1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

Q13. **My academic institution applied disciplinary action that punishes students of African descent harsher than other racial groups.**
1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

Q14. **Faculty should use critical race theory, Black Lives Matter, and social justice in their curriculum in colleges and universities.**
1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

Q15. **Faculty do not need to understand Critical Race Theory, Black Lives Matter, and social justice curricula in colleges and universities.**
1. Strongly disagree
2. Disagree

3. Neutral
4. Agree
5. Strongly agree

Q16. **I wish my undergraduate institution did more to address racism and implicit racial bias on campus.**
1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

Q17. **Colleges and universities should not use Critical Race Theory in their curriculum.**
1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

Q18. **There are efforts to encourage students to respect and interact with students of different racial and ethnic backgrounds at my college or university.**
1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

Q19. **My college or university celebrates holidays of various cultures and ethnicities on campus.**
1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

Q20. **Faculty members support and mentor students of all backgrounds outside of the classroom.**
1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

Q21. **My college or university should require the study of the history and culture of Black, Indigenous, and People of Color (BIPOC).**

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

Q22. **My college/ university should implement stricter and more consistent penalties for students and adults who commit racist or discriminatory actions or comments on campus.**
1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

Q23. **What were some barriers to racial equity and inclusion at your undergraduate institution?**

Q24. **Is there anything your university/ college can do to improve students' quality of life on campus?**

REFERENCES

Applebaum, B. (2019). Remediating campus climate: Implicit bias training is not enough. *Studies in Philosophy and Education*, *38*, 129-141.

Aronson, B., & Laughter, J. (2016). The theory and practice of culturally relevant education: A synthesis of research across content areas. *Review of Educational Research*, *86*(1), 163-206.

Bailey, M. B., Johnson, K., & Nawara, S. P. (2022). Exploring college students' assessments of racially-coded language. *The Social Science Journal*, 1-11.

Bartlett, T. (2017). Can we really measure implicit bias? Maybe not. *The Chronicle of Higher Education*, *63*(21), B6-B7.

Bell, D. (2005). *The Derrick Bell reader* (Vol. 75). NYU Press.

Bernard, A. R. (2016). *Four things women want from a man* (pp. 23-24). Howard Books.

Blanton, H., & Jaccard, J. (2017). You can't assess the forest if you can't assess the trees: Psychometric challenges to measuring implicit bias in crowds. *Psychological Inquiry*, *28*(4), 249-257.

Blanton, H., Jaccard, J., Gonzales, P. M., & Christie, C. (2006). Decoding the implicit association test: Implications for criterion prediction. *Journal of Experimental Social Psychology*, *42*(2), 192-212.

Blum, L. (2008). White privilege': A mild critique1. *Theory and research in education*, *6*(3), 309-321.

Breese, A. C., Nickerson, A. B., Lemke, M., Mohr, R., Heidelburg, K., Fredrick, S., & Allen, K. (2023). Examining implicit biases of pre-service educators within a professional development context. *Contemporary school psychology*, 1-16.

Brooks, J. S., & Normore, A. H. (2018). Qualitative research in educational leadership studies: Issues in the design and conduct of studies. In *Complementary Research Methods For Educational Leadership And Policy Studies* (pp. 19-32). Palgrave Macmillan, Cham.

Brown, A. L. (2018). From subhuman to humankind: Implicit bias, racial memory, and Black males in schools and society. *Peabody Journal of Education*, *93*(1), 52–65.

Brown, S. (2019). Nearly half of undergraduates are students of color. But Black students lag behind. *The Chronicle of Higher Education*.

Cahalan, M., Perna, L. W., Yamashita, M., Wright-Kim, J., & Jiang, N. (2019). 2019 Indicators of higher education equity in the United States: Historical trend report.

Campbell, S. D. (2010). *Race still matters: How race influences success and satisfaction for African American college students*—University of Delaware.

Campbell, S. D., Carter-Sowell, A. R., & Battle, J. S. (2019). Campus climate comparisons in academic pursuits: How race still matters for African American college students. *Group Processes & Intergroup Relations*, *22*(3), 390-402.

Carnevale, A. P., Mabel, Z., & Campbell, K. P. (2023). Race-Conscious Affirmative Action: What's Next. *Georgetown University Center on Education and the Workforce.*

Chapman, T. K. (2007). Interrogating classroom relationships and events: Using portraiture and critical race theory in education research. *Educational Researcher*, *36*(3), 156-162.

Chen, R., & DesJardins, S. L. (2010). Investigating the impact of financial aid on student dropout risks: Racial and ethnic differences. *The Journal of Higher Education*, *81*(2), 179-208.

Cole, M. (2017). *Critical race theory and education: A Marxist response*. Springer.

Corces-Zimmerman, C., Thomas, D., & Cabrera, N. L. (2021). Historic scaffolds of whiteness in higher education. In *Whiteness, power, and resisting change in US higher education* (pp. 9-31). Palgrave Macmillan, Cham.

Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.

De Brey, C., Musu, L., McFarland, J., Wilkinson-Flicker, S., Diliberti, M., Zhang, A., ... & Wang, X. (2019). Status and Trends in the Education of Racial and Ethnic Groups 2018. NCES 2019-038. *National Center for Education Statistics*.

Delgado, R., & Stefancic, J. (1998). Critical race theory: Past, present, and future. *Current legal problems*, *51*(1), 467.

Dinishak, J. (2016). The deficit view and its critics. *Disability Studies Quarterly*, *36*(4).

Engram Jr, D. F. V., & Mayer, K. (2023). Ya'll Don't Hate White Supremacy Enough for Me: How Performative DEI Prevents Anti-Racism and Accountability in Higher Education. *The Vermont Connection*, *44*(1), 10.

Enyeart Smith, T. M., Wessel, M. T., & Polacek, G. N. (2017). Perceptions of cultural competency and acceptance among college students: Implications for diversity awareness in higher education. *ABNF Journal*, *28*(2).

Espinosa, L. L., Turk, J. M., Taylor, M., & Chessman, H. M. (2019). Race and ethnicity in higher education: A status report.

Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American journal of theoretical and applied statistics*, *5*(1), 1-4.

Feagin, J. R., & Sikes, M. P. (1995). How Black students cope with racism on White campuses. *The Journal of Blacks in Higher Education*, (8), 91-97.

Fiarman, S. E. (2016). Unconscious bias: When good intentions aren't enough. *Educational Leadership*, *74*(3), 10-15.

Flint, A. S., & Jaggers, W. (2021). You matter here: The impact of asset-based pedagogies on learning. *Theory Into Practice*, *60*(3), 254-264.

Fox, J. L. Reframing the Educational Narrative: Impacts of Culture, Implicit Biases, and Opportunities.

Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2019). *How to design and evaluate research in education*. New York: McGraw-Hill Humanities/Social Sciences/Languages.

Franklin, J. (2016). Racial microaggressions, racial battle fatigue, and racism-related stress in higher education. *Journal of Student Affairs at New York University*, *12*(44), 44-55.

Fries-Britt, S. L., Rowan-Kenyon, H. T., Perna, L. W., Milem, J. F., & Howard, D. G. (2011). Underrepresentation in the academy and the institutional climate for faculty diversity. *Journal of the Professoriate*, *5*(1).

Garoutte, L., & McCarthy-Gilmore, K. (2014). Preparing students for community-based learning using an asset-based approach. *Journal of the Scholarship of Teaching and Learning*, 48-61.

Godsil, R. D., & Goodale, B. (2013). Telling our own story: The role of narrative in racial healing. *WK Kellogg Foundation. Accessed February 24*, 2016.

Greenwald, A. G., & Krieger, L. H. (2006). Implicit bias: Scientific foundations. *California law review*, *94*(4), 945-967.

Guido, F.M., Patton, L.D.; Quaye, J.; and Renn, K.A. (2016). *Student development in college: Theory, research, and practice* (3rd Edition). San Francisco: Jossey-Bass.

Gullo, G. L., & Beachum, F. D. (2020). Does implicit bias matter at the administrative level? A study of principal implicit bias and the racial discipline severity gap. *Teachers College Record*, *122*(3), 1-28.

Gurin, P., Dey, E., Hurtado, S., & Gurin, G. (2002). Diversity and higher education: Theory and impact on educational outcomes. *Harvard educational review*, *72*(3), 330-367.

Gusa, D. L. (2010). White institutional presence: The impact of Whiteness on campus climate. *Harvard Educational Review*, *80*(4), 464-490.

Golden, D. (2023). *Muzzled by DeSantis, Critical Race Theory Professors Cancel Courses or Modify Their Teaching*. ProPublica. Retrieved February 1, 2023, from https://www.propublica.org/article/desantis-critical-race-theory-florida-college-professors

Griffin, K. A., Cunningham, E. L., & George Mwangi, C. A. (2016). Defining diversity: Ethnic differences in Black students' perceptions of racial climate. *Journal of Diversity in Higher Education*, *9*(1), 34.

Garoutte, L., & McCarthy-Gilmore, K. (2014). Preparing students for community-based learning using an asset-based approach. *Journal of the Scholarship of Teaching and Learning*, 48-61.

Harper, S. R. (2012). Race without racism: How higher education researchers minimize racist institutional norms. *The Review of Higher Education*, *36*(1), 9-29.

Harper, S. R., Smith, E. J., & Davis III, C. H. (2018). A critical race case analysis of Black undergraduate student success at an urban university. *Urban Education*, *53*(1), 3-25.

Hickman, C. B. (1996). The devil and the one drop rule: Racial categories, African Americans, and the US census. *Mich. L. Rev.*, *95*, 1161.

Hiraldo, P. (2010). The role of critical race theory in higher education. *The Vermont Connection*, *31*(1), 7.

Hurtado, S., Milem, J. F., Clayton-Pedersen, A. R., & Allen, W. R. (1998). Enhancing campus climates for racial/ethnic diversity: Educational policy and practice. *The review of higher education*, *21*(3), 279-302.

Hurtado, S., Milem, J., Clayton-Pedersen, A., & Allen, W. (1999). *Enacting Diverse Learning Environments: Improving the Climate for Racial/Ethnic Diversity in Higher Education. ASHE-ERIC Higher Education Report, Vol. 26, No. 8*. ERIC Clearinghouse on Higher Education, One Dupont Circle, NW, Suite 630, Washington, DC 20036-1181.

Hylton, K. (2008). *'Race' and sport: critical race theory*. Routledge.

Jaramillo, C., & Nohelty, K. (2022). Guidance for behavior analysts in addressing racial implicit bias. *Behavior Analysis in Practice*, *15*(4), 1170-1183.

Jayakumar, U. M. (2019). Why are all the black students still sitting together in the proverbial college cafeteria: A look at research information the figurative question being taken by the Supreme Court in Fisher.

Jhangiani, R. S., Chiang, I. A., & Price, P. C. (2015). *Research methods in psychology-2nd Canadian Edition*. BC Campus.

Joseph, R. P., Keller, C., & Ainsworth, B. E. (2016). Recruiting participants into pilot trials: Techniques for researchers with shoestring budgets. *Californian journal of health promotion, 14*(2), 81.

Kavanaugh, G. (2019). *Implicit Bias and Racism in Higher Education* (Doctoral dissertation, Northeastern University).

Kena, G., Musu-Gillette, L., Robinson, J., Wang, X., Rathbun, A., Zhang, J., ... & Velez, E. D. V. (2015). The Condition of Education 2015. NCES 2015-144. *National Center for Education Statistics*.

King, B. T., & Ford, T. E. (2003). African-American student perceptions of predominately White campuses: The importance of institutional characteristics relating to racial climate. *Journal of Applied Sociology*, (2), 65-76.

Kirk, R. E. (2013). *Experimental Design: Procedures for the Behavioral Sciences, 4th Edition.* SAGE Publications, Inc.

Klein, H. A. (2004). 9. Cognition in natural settings: The cultural lens model. *Cultural ergonomics*.

Knox, L. (2023, February). *Cost, discrimination pose challenges for Black students*. Inside Higher Ed | Higher Education News, Events and Jobs. Retrieved May 19,

2023, from https://www.insidehighered.com/news/2023/02/10/cost-discrimination-pose-challenges-black-students

Ladson-Billings, G. (1998). Just what is critical race theory and what's it doing in a nice field like education?. *International journal of qualitative studies in education*, *11*(1), 7-24.

Ladson-Billings, G. (2014). Culturally relevant pedagogy 2.0: aka the remix. *Harvard educational review*, *84*(1), 74-84.

Ladson-Billings, G., & Tate, W. F. (2016). Toward a critical race theory of education. In *Critical race theory in education* (pp. 10-31). Routledge.

Lavalley, R., & Johnson, K. R. (2022). Occupation, injustice, and anti-Black racism in the United States of America. *Journal of Occupational Science*, *29*(4), 487-499.

Leath, S., & Jones, M. (2022). Racial climate and mental health service utilization among Black college students at diverse institutions. *Currents: Journal of Diversity Scholarship for Social Change*, *2*(1).

Lewis, K. R., & Shah, P. P. (2021). Black students' narratives of diversity and inclusion initiatives and the campus racial climate: An interest-convergence analysis. *Journal of Diversity in Higher Education*, *14*(2), 189.

Lujan, H. L., & DiCarlo, S. E. (2021). The racist "one drop rule" influencing science: it is time to stop teaching "race corrections" in medicine. *Advances in Physiology Education*, *45*(3), 644-650.

Magdaleno, K. (2013). Recognizing the cultural value students bring to school. *Leadership*, *9*, 10-30.

Magolda, M. B. B. (2008). Three elements of self-authorship. *Journal of college student development*, *49*(4), 269-284.

Manglitz, E. (2003). Challenging white privilege in adult education: A critical review of the literature. *Adult Education Quarterly*, *53*(2), 119-134.

Marx, E. (2012). *Advising to Promote Self-Authorship: Exploring Advising Strategies and Advisor Characteristics among New Student Affairs Professionals*. ProQuest LLC. 789 East Eisenhower Parkway, PO Box 1346, Ann Arbor, MI 48106.

Mills, K. J. (2021). Black Students' Perceptions of Campus Climates and the Effect on Academic Resilience. *Journal of Black Psychology*, *47*(4-5), 354-383.

Mitchell, T. D., Donahue, D. M., & Young-Law, C. (2012). Service learning as a pedagogy of whiteness. *Equity & Excellence in Education*, *45*(4), 612-629.

Mwangi, C. A. G., Thelamour, B., Ezeofor, I., & Carpenter, A. (2018). "Black elephant in the room": Black students contextualizing campus racial climate within U.S. racial climate. *Journal of College Student Development*, *59*(4), 456–474.

National Center for Education Statistics. (2023). Hate Crime Incidents at Postsecondary Institutions. *Condition of Education*. U.S. Department of Education, Institute of Education Sciences. https://nces.ed.gov/programs/coe/indicator/a22.

Paredes-Collins, K. (2009). Institutional priority for diversity at Christian institutions. *Christian Higher Education*, *8*(4), 280-30

Paris, D. (2012). Culturally sustaining pedagogy: A needed change in stance, terminology, and practice. *Educational researcher*, *41*(3), 93-97.

Patton, L. D., McEwen, M., Rendón, L., & Howard-Hamilton, M. F. (2007). Critical race perspectives on theory in student affairs. *New directions for student services*, *2007*(120), 39-53.

Payne, B. K., Vuletich, H. A., & Brown-Iannuzzi, J. L. (2019). Historical roots of implicit bias in slavery. *Proceedings of the National Academy of Sciences*, *116*(24), 11693-11698.

Pewewardy, C. D. (1998). Culturally responsive teaching for American Indian learners.

Razack, N., & Jeffery, D. (2002). Critical race discourse and tenets for social work. *Canadian Social Work Review/Revue Canadienne De Service Social*, 257-271.

Reay, D. (2009). *Sociology, social class and education* (p. 414-422). Routledge.

Reja, U., Manfreda, K. L., Hlebec, V., & Vehovar, V. (2003). Open-ended vs. close-ended questions in web questionnaires. *Developments in applied statistics*, *19*(1), 159-177.

Robinson, B. K. (2021). Anti-racism in early childhood education. *SaportaReport*. https://saportareport.com/anti-racism-in-early-childhood-education/thought-leadership/sheltering-arms/

Rollock, N., & Gillborn, D. (2011). Critical race theory (CRT). *British Educational Research Association*.

Russell-Brown, K. (2018). The academic swoon over implicit racial bias: costs, benefits, and other considerations. *Du Bois Review: Social Science Research on Race*, *15*(1), 185-193.

Scialabba, N. (2017). How implicit bias impacts our children in education. *American Bar Association*. https://www.americanbar.org/groups/litigation/committees/childrens-rights/articles/2017/fall2017-how-implicit-bias-impacts-our-children-in-education/

Sedler, R. A. (1979). Beyond Bakke: The Constitution and redressing the social history of racism. *Harv. CR-CLL Rev.*, *14*, 133.

Shearman, S. M., Morin, A., & Muldrow, A. F. (2023). Campus Integration and Campus Climate at a Predominantly White Institution in the South. *Howard Journal of Communications*, *34*(1), 92–111.

Singh, S., & Wassenaar, D. R. (2016). Contextualising the role of the gatekeeper in social science research. *South African Journal of Bioethics and Law*, *9*(1), 42-46.

Solorzano, D., Ceja, M., & Yosso, T. (2000). Critical race theory, racial microaggressions, and campus racial climate: The experiences of African American college students. *Journal of Negro Education*, 60-73.

Spelman College. (2020). *At a Glance*. https://www.spelman.edu/about-us/at-a-glance

St. Amour, M. (2020). What happens before college matters. *Inside Higher Ed.* https://www.insidehighered.com/news/2020/10/20/black-students-need-changes-policies-and-structures-beyond-higher-education

Staats, C. (2014). Implicit racial bias and school discipline disparities. Retrieved from Columbus, OH: http://kirwaninstitute.osu.edu/wp-content/uploads/2014/05/ki-ib-argument-piece03.pdf.

Staats, C., Capatosto, K., Wright, R. A., & Contractor, D. (2015). *State of the science: Implicit bias review 2015* (Vol. 3). Columbus, OH: Kirwan Institute for the Study of Race and Ethnicity.

Starck, J. G., Riddle, T., Sinclair, S., & Warikoo, N. (2020). Teachers are people too: Examining the racial bias of teachers compared to other American adults. *Educational Researcher*, *49*(4), 273-284.

Stewart, T. L., Latu, I. M., Branscombe, N. R., Phillips, N. L., & Ted Denney, H. (2012). White privilege awareness and efficacy to reduce racial inequality improve White Americans' attitudes toward African Americans. *Journal of Social Issues*, *68*(1), 11-27.

Stolp, S. W. (1994). Leadership for school culture. *ERIC Digest 91*. https://scholarsbank.uoregon.edu/xmlui/bitstream/handle/1794/3312/digest091.pdf

Stubbs, J. F. (2022). *The Black College Student: How Success on a College Campus Is Influenced by Race* (Doctoral dissertation, Rowan University).

Suárez-Orozco, C., Yoshikawa, H., & Tseng, V. (2015). Intersecting inequalities: Research to reduce inequality for immigrant-origin children and youth. *William T. Grant Foundation*.

Teitelbaum, K. (2022). Curriculum, conflict, and critical race theory. *Phi Delta Kappan*, *103*(5), 47-53.

Telles, A. B., & Mitchell, T. D. (2018). Much discussion, not much change: Perceptions of campus climate continue to differ along racial lines. In *Evaluating Campus Climate At U.S. Research Universities* (pp. 395-408). Palgrave Macmillan.

Thornhill, T. (2019). We want black students, just not you: How white admissions counselors screen black prospective students. *Sociology of Race and Ethnicity*, *5*(4), 456-470.

U.S. Census Bureau. (2020). https://www.census.gov/quickfacts/fact/note/US/RHI625219

Vasantha Raju, N., & Harinarayana, N. S. (2016, January). Online survey tools: A case study of Google Forms. In *National Conference on Scientific, Computational & Information Research Trends in Engineering, GSSS-IETW, Mysore*.

Wilson, J. L. (2015). Presidential plans: New college presidents and diversity efforts. *Planning for Higher Education*, *44*(1), 76.

Williams, M. T. (2019). Adverse racial climates in academia: Conceptualization, interventions, and call to action. *New ideas in Psychology*, *55*, 58-67.

Wong, B., Elmorally, R., Copsey-Blake, M., Highwood, E., & Singarayer, J. (2021). Is race still relevant? Student perceptions and experiences of racism in higher education. *Cambridge Journal of Education*, *51*(3), 359-375.

Yosso, T. J. (2005). Whose culture has capital? A critical race theory discussion of community cultural wealth. *Race, Ethnicity, and Education*, *8*(1), 69-91.

Younge, S., Dickens, D., Winfield, L., & Sanders Johnson, S. (2021). Moving beyond the experiment to see chemists like me: cultural relevance in the organic chemistry laboratory. *Journal of Chemical Education*, *99*(1), 383-392.

Vita

Name	*Edwin Mathieu*
Baccalaureate Degree	*Bachelor of Arts,* *New York University,* *New York, New York* *Major: History*
Date Graduated	*June 1997*
Other Degrees and Certificates	*Master of Arts, City College* *New York, New York* *Major: History*
Date Graduated	*June 2004*