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School Related Criminal Acts, Interpersonal Problems, and Classroom Behaviors as a Function of The Proportion of Black Students and Black Teachers

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School Related Criminal Acts, Interpersonal Problems, and Classroom Behaviors as a Function of The Proportion of Black Students and Black Teachers

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ABSTRACT

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This study's purpose was to investigate school-level behavioral outcomes in relation to the proportion of Black teachers and students in U.S. schools. Negative school outcome and academic achievement gaps are well-documented. However, many of these studies utilized small, localized populations; my research used national data and focused on the problem behaviors in school. Drawing from Critical Race Theory, I hypothesized that a greater proportion of Black teachers would reduce school student problems and negative behaviors (e.g., student verbal abuse of teachers, widespread disorder in classrooms). After receiving a restricted-use license, I utilized data from 25,818 schools from the National Teacher and Principal Surveys and the Civil Rights Data Collection from the U.S. Department of Education. The dependent variables were created using principal components analysis of Likert-ratings from principals and teachers. From the principal's evaluations of "School Climate and Safety," two subscales (criminal acts, interpersonal problems) emerged accounted for 42% of the variance. From the teacher's assessment of "School Climate and Teacher Attitudes," a unidimensional scale accounted for 48% of the variance. Subsequently, I conducted three hierarchical linear regressions to model school-level criminal acts, interpersonal problems, and classroom behaviors, separately. Funding, percent of Black students and teachers, and school level accounted for 37% of variance in criminal acts, 7% of variance in interpersonal problems, 19% of variance in classroom behaviors. Regression weights for percent of Black students and percent of Black teachers were significant across all hierarchical linear regressions however their regression weights were quite low. Significant three-way interactions helped clarify the

results. Particularly for middle and high schools, when the proportion of Black students is higher, Black teachers can be a protective factor against in-school criminal acts ($B < 0.001$, $p < 0.001$). This same pattern was observed for interpersonal problems in high schools ($B < 0.001$, $p < 0.001$) and problematic classroom behaviors in middle ($B < 0.001$, $p = 0.022$) and high schools ($B < 0.001$, $p < 0.001$). I recommend that policy makers and schools put real effort towards hiring and retaining Black teachers to help close the achievement and disciplinary gaps between White and Black students.

Keywords: Black teachers, Black students, White teachers, Critical Race Theory, in-school criminal acts, interpersonal problems, problematic classroom behaviors, policy

CHAPTER I – **INTRODUCTION**

The United States' public education system is failing African American students. Differences in academic achievement and negative school outcomes (e.g., dropout rates, suspensions) between Black and White students have been well-documented by researchers (Anderson & Ritter, 2017; Bradshaw et al., 2010; Gopalan & Nelson, 2019; Simms, 2012; U.S. Department of Education Office for Civil Rights, 2016). Countless articles and books provide evidence of Black students' underachievement compared to their White counterparts (Carter et al., 2013; Ford & Moore, 2013; Jackson, 2021). Specifically, Carter et al. (2013) reported that while White students' graduation rates are between 83.5% –93.5%, Black students' graduation rates lag at 66.1%–71.4%. Furthermore, Black students' dropout rates are more than double the national average (Carter et al., 2013). The National Center for Educational Statistics (NCES) also states that Black students' scores on the 2011 National Assessment of Educational Progress (NAEP) were on average 31 points lower in mathematics than White students (Bohrnstedt et al., 2015).

Although limited, some researchers have reported improved outcomes when Black students have an "own-raced teacher." Results from a randomized trial (Dee, 2004), showed that students increased achievement in both math and reading when they were taught by a same race instructor. Further, Grissom et al. (2015) provided evidence of fewer suspensions among Black students when their teachers were also Black. Additionally, Black students are more likely to be placed in gifted programs and services, receive fewer disciplinary actions, and less likely to be placed in special education programs when they are in schools with a larger proportion of Black teachers (Grissom et al., 2015). The literature currently supports the notion of same race teachers improving

behavioral and academic outcomes for Black students (Beady & Hansell, 1981; Dee, 2005; Egalite et al., 2015; Gershenson et al., 2018; Hart, 2020; Klopfenstein, 2005; Lindsay & Hart, 2017). However, many of these studies utilized small or localized populations, while my research plans to use national data. My research objective is to investigate if the proportions of Black teachers and students affect the behavioral/disciplinary outcomes, as reported by principals and teachers, of Black students in the United States. I hypothesize that a greater proportion of Black teachers will reduce student problems and negative behaviors (e.g., student verbal abuse of teachers, out of school suspension, widespread disorder in classrooms). The current state of education is inevitably tied to the history of the education of Black students.

African American and Black Definitions

This dissertation will be using the term "Black" as it is defined by the United States Census Bureau. That is, "a person having origins in any of the Black racial groups of Africa (United States Census Bureau, 1997)." When the term "African American" is used, it is solely to use the same terms that were used in others' research and writings. Additionally, the terms "African American" and "Black" have the same definition (United States Census Bureau, 1997); therefore, can be used interchangeably.

The History of the Education of Black Students

Since the desegregation of schools in the 1950's, Black students have been subjected to discrimination and ultimately have suffered in the public school system (Dumas, 2013). Schools all around the United States primarily serving Black students have continued to receive less funding than schools serving White students. This lack of equitable funding has caused many additional barriers for Black students and their schools (Dumas, 2013). Historically, Black schools have had overcrowded classrooms,

facilities that needed repairs, significantly fewer advanced academic offerings, and insufficient supplies and tools (Dumas, 2013). The Brown v. Board of Education decision to integrate public schools championed a more equitable structure for students. However, when Black students began to enroll in White schools, White teachers were not prepared to teach Black children or address the racial climate within their classrooms. Dumas (2013) examined bias and discrimination within schools by interviewing Black leaders and educators who served through desegregation up until the time of his publication. A few examples from Dumas' work provide clear examples of deeply entrenched and ongoing racism in public schools.

The first example is a demonstration of inequities in access to specialized programming. In the 1970's, the Horizon program in the Seattle Public Schools provided specialized programming for students identified as gifted and talented (Dumas, 2013). A Black administrator (the principal of an elementary school) noted that the Horizon class sizes were around 20 students each and were comprised entirely of White students. In contrast, other classes were typically sized at 36 to 38 students. Further, there was a waiting list for the Horizon program consisting of students that had been tested and passed the entrance exam *and* were African American, Asian, or Native American. When the Black administrator pushed for a more equitable enrollment, teachers resisted by claiming that Black students had more problematic behaviors. They identified one Black male student, in particular. When the Black administrator compared his school record to the White students in the class, there were not any meaningful differences, and the Black student was retained in the Horizon program (Dumas, 2013). In this situation, an African American principal stopped and remediated a situation of discrimination, and when attempting to correct the situation, the administrator was met with opposition but

was able to provide justice by providing evidence of the clear bias. Dumas (2013) explained that many Black students adapt the mindset that their academic work will not translate to good careers or social advancement. Furthermore, the cognitive schema of studying and participating in school for one's work to result in a degree that is devalued based on skin color moves Black students to purposelessly sit in classes and matriculate through their education.

The second example highlights inequities in disciplinary actions. A White student wanted a ball from a Black student and said, "Give me that ball nigger." The Black student responded physically, giving the White student a bloody nose. The Black student received a 3-day suspension for fighting; the White student received no disciplinary action, even though he engaged in verbal assault with a racial slur.

A third example illustrates differential expectations as a function of race. A Black middle school teacher observed that White teachers allowed Black girls to congregate in the back of the classroom to braid each other's hair, while White students were expected to be engaged in the class activities. Dumas (2013) observed that in this example, White teachers ignored interfering behaviors and failed to encourage and engage Black students' participation in class.

Across these three examples, White teachers and administrations reacted differently to students based on the student's race, which ultimately shows how Black students are often held to different expectations. Further, through the interviews with school administrators and teachers, Dumas (2013) noted a consistent theme of *we* and *they*. Dumas defined *we* as "the Black *we* who suffer" and *they* as "the White *they* who are the cause of that suffering." Each story incorporated, "Who, but *us*, will stand up and save *our* people," and another theme around *them*, such as, "*They* don't care," and "Their

advocacy is for *their* children." It should be noted that many interviewees made distinctions between *they* and individual White allies. Overall, this reminds us that, although segregation was legally ended in the 1950's, children are still being taught in a segregated manner. As Dumas (2013) states, since the Brown v. Board of Education decision, Black students and their families only face a different type of fear, disappointment, and discrimination.

Critical Race Theory (CRT)

Critical Race Theory (CRT) is a movement that was created by scholars looking to incorporate their knowledge and reality in effort to change how race, racism, power, and law are related (Delgado & Stefancic, 2017; Tate IV, 1997). CRT was not created by one team of scholars or based on one paper, rather, the civil rights movement along with several scholars' efforts made way for this framework. This framework is based on similar issues from the U.S. civil rights movement, but analyzes them from a broader view that includes history, economics, the judicial system, setting or context, group and self-interest, as well as emotions and the unconscious (Delgado & Stefancic, 2017). Furthermore, personal stories, individual situations, and distinctive experiences outlined by race are used in this framework to create the term, *voice* (Tate IV, 1997). Tate IV (1997) further defined this movement by its motivation to marry individual accounts and large-scale analyses of the law.

Although both CRT and civil rights movement share common themes, CRT challenges conservative and liberal positions (Delgado & Stefancic, 2017). CRT is not interested in the "step-by-step progress" civil rights' discourses push, but rather to critique liberalism (Delgado & Stefancic, 2017). After the Civil Rights movement dwindled, several scholars emerged in the 1970's producing literature further illustrating

that racism was *not* snuffed out by the previous movement but rather, created or amended laws that functioned to appease White people rather than address issues of equity (Delgado & Stefancic, 2017; Tate IV, 1997).

Overall, the CRT framework and movement is heavily based on law, equity, education, and how "Black" and "White" can be transformed from a social contract to natural categories (Tate IV, 1997). Additionally, identifying perspectives of those who have historically been oppressed is key to both understanding systematic realities and progress (Tate IV, 1997). Tate IV explains,

> Minority perspectives make explicit the need for fundamental change in the ways we think and construct knowledge . . . Exposing how minority cultural viewpoints differ from White cultural viewpoints requires a delineation of the complex set of social interactions through which minority consciousness had developed (Tate IV, 1997, p. 210).

Furthermore, minority perspectives or Black teachers may create inclusive and understanding environments for Black students to learn and succeed. School curriculums are created by the state department of education, principals, teachers, and district school boards (National Center for Education Statistics, 1995). The state department, lacking diversity, is primarily made up of White males (Heath, 2021; Kralev, 2016). Moreover, well over 70% of principals and teachers across America are White (Schaeffer, 2021). Not shockingly, school curriculums are based around ideas, historical events, and paradigms that reflect the experiences of their Anglo-Saxon Protestant authors (Jay, 2003). Moving towards a more inclusive education (through the creation of a diverse state department) curriculum is key to culturally inclusive and multicultural education, however, my dissertation attempts to highlight the actual teaching and interpretation of

this curriculum by teachers and principals. Therefore, the above quote explains how minority or Black educators are more equipped to offer their viewpoints and knowledge about social interactions because of their own experiences. This and its impacts are detailed in a later section of my dissertation.

The Basic Tenets of CRT

Delgado and Stefancic (2017) introduce six basic tenets upon which most CRT theorists agree. The first is that racism is a normal, everyday occurrence and not aberrational, in that it is the day-to-day experience for people of color in the United States. This tenet creates difficulty in identifying racism because of its ordinariness. Delgado and Stefancic (2017) explain remedies such as color-blindness and equality, which are only able to address the most flagrant types of discrimination and racism. The second tenet is that racism serves two specific purposes, or in other words, racism is "interest convergence." Racism provides material and psychical gains. Most often, White elites gain materially while working-class White people gain psychically (Delgado & Stefancic, 2017). For example, while America demonized Mexicans in Texas and the Southwest during the 1840's, elite White people gained cheap-backbreaking labor and working-class White people gained sentiments of superiority over Mexicans (Delgado & Stefancic, 2017). The next tenet is that race and races are a social construct. Delgado and Stefancic (2017) acknowledged that people with the same origins may share physical traits (e.g., skin color, hair texture) however, race is not objective and does not have a corresponding genetic or biological feature. Moreover, this societal invention of race does not acknowledge our scientific commonality of being human (Delgado & Stefancic, 2017). This tenet postulates that race does not have anything to do with personality, moral behavior, or cognitive functioning. The fourth tenet is the differential racialization

of minority groups and how they change over time. For example, agriculture markets at one point valued Japanese workers, but later disfavored them and removed them to internment camps during World War II (Delgado & Stefancic, 2017). The fifth tenet is the idea of intersectionality over essentialism. Delgado and Stefancic (2017) explain that no one person can be easily labeled or have one identity, and that all people have multiple allegiances and identities that overlap or possibly conflict. The final element is that each person of color has a unique voice in their identity and that this *voice* can be presumed competent to speak about their own experiences with race and racism.

CRT and Education in America

Bell (1980) argues that the Brown v. Board of Education decision did not improve the education of Black students. As Black students began to enter White schools, educational equality was assumed to be the inherent result. However, additional policies were not created to protect Black students, for example, suspensions and expulsions were given out at much higher rates than for White students (for the same infractions), Black teachers and administrators lost their jobs due to the desegregation of schools, and no anti-discrimination policies were put into place to protect Black students from discriminatory policies that excluded them from honors programs and extracurricular activities, as well as racial harassment and physical violence. As Black students were bussed to White schools, many White families relocated their students to schools outside of the city. With White people fleeing from inner city schools coupled with the aforementioned discriminatory policies, the Brown v. Board of Education decision essentially resegregated schools. Furthermore, Matias et al. (2016) argued that without diversity and critical perspectives from people of color, Whiteness has become institutionalized in our education systems. Some examples are White women selecting

mirror images of themselves when hiring teachers or how courses about diversity and race remain electives in teacher trainings (Matias et al., 2016). CRT is used as the theoretical lens for my study by exploring outcomes at the systemic level of the school district.

Teacher Race

Reporting the race/ethnicity of teachers in the U.S. is made tricky because of the limitations on the categories used. The National Center for Education Statistics' 2017-18 annual report of staff information states that schoolteachers in the United States are primarily made up of White teachers (National Center for Education Statistics, 2021). The Institute of Education Science (IES), a unit in the U.S. Department of Education, published The Condition of Education of 2020 which included the annual reports of staff information (Hussar et al., 2020). The IES defines "American Indian or Alaska Native" as someone who has origins in any of the North, Central, or South Americas and maintains a community attachment or a tribal affiliation. "Asian" is considered anyone with origins from the Far East or Southeast Asia, or the Indian subcontinent; these include Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam. Anyone with origins from Black racial groups of Africa is considered "Black." The IES defines "Native Hawaiian or Other Pacific Islander" as a person who has origins from either Guam, Samoa, the origin peoples of Hawaii, and other Pacific Islands. Peoples with origins in Europe, the Middle East, or North Africa are defined as "White." Peoples from Mexico, Puerto Rico, Cuba, South or Central America, or a Spanish culture or origin *despite race* are considered "Hispanic or Latino." Lastly, it should be noted that these labels are not always adequate in the description of one's race. For example, Maghbouleh (2020) interviewed 84 Iranian Americans who

expressed feelings of not wanting to identify themselves as White. Some researchers have even accused this categorical system of being a racial loophole by "whitewashing" Middle Easterners and advocating for the category of MENA (Middle East or North Africa) to be included in the CENSUS (Chehayeb, 2019; Maghbouleh, 2017; Wang, 2018). Therefore, when interpreting these demographics, readers should be aware of inaccuracies between expressed race, self-identified race, and reflected race, or in other words, race perceived by strangers (Gonlin et al., 2020).

During the 2017-2018 school year, traditional public schoolteachers were comprised of 80% White teachers, 9% Hispanic teachers, 7% Black teachers, 2% Asian teachers, 0% Pacific Islander teachers, 1% American Indian/Alaska Native teachers, and 2% two or more race teachers. In public charter schools, 68% of teachers were White, 10% were Black, 16% were Hispanic, 3% were Asian, 0% Pacific Islander, 0% American Indian/Alaska Native, and 2% were two or more races. In addition to an overwhelmingly White staff (85% of teachers identified as White), private schools were made up of only 3% Black teachers, 7% Hispanic teachers, 3% Asian teachers, 0% Pacific Islander and American Indian/Alaska Native teachers, and 1% two or more race teachers.

The IES reported that in Fall 2000, public schools' prekindergarten through 12th grade were compromised of 61% of White students, and in Fall 2015, this percent dropped to 49%. Seventeen percent of students in Fall 2000 were Black, and in Fall 2015, these numbers dropped, to 15%. In Fall 2000 students were made up of 16% Hispanic, but in Fall 2015, this percentage increased to 26%. Similarly, Asian/Pacific Islander students' percent's increased, but only slightly, from Fall 2000 (4%) to Fall 2015 (5%). Students of the American Indian/Alaska Native race percentages stayed at 1% from Fall 2000 to Fall 2015. Data for students of two or more races is not available for Fall 2000,

however, public schools consisted of 3% of students from two or more races. The IES also provides projected percentages of distribution of public-school students' race/ethnicity for Fall 2027. The IES predicts that students will be 45% White (4% decrease), 15% Black (no change), 29% Hispanic (3% increase), 6% Asian/Pacific Islander (1% increase), 1% American Indian/Alaska Native (no change), and 4% two or more races (1% increase).

The U.S. Department of Education (2016) reports that teacher diversity has been shown to produce notable advantages for students. The U.S. Department of Education (2016) is careful in saying that positive social outcomes of diverse teachers have been found for *all* students, not only students of color. Teachers of color help breakdown negative stereotypes and prepares students for a multicultural society. While for students of color, The U.S. Department of Education (2016) states that teachers of color can help close achievement gaps while confronting issues of racism, form trusting relationships and be advocates for students of color. However, the overwhelming majority of teachers in public, private, and charter schools are White. In contrast, it is projected that public schools will be made up of 55 to 56% of students of color (Hussar et al., 2020; U.S. Department of Education, 2016). The U.S. Department of Education (2016) goes on to say that teachers' racial demographics have been the same for over 15 years; in 2000, 82% of all public school teachers were White.

Black Students' Outcomes Related to Teacher Race

Pang and Gibson (2001) have stated, "Black educators are far more than physical role models, and they bring diverse family histories, value orientations, and experiences to students in the classroom, attributes often not found in textbooks or viewpoints often omitted." Black teachers can add nuance to the lessons introduced to students in their

social studies and history textbooks (Pang and Gibson, 2001). Teachers of color have shown increased expectations of students of color which in turn, increases referrals to gifted and honors programs (The U.S. Department of Education, 2016). Not only are Black students missing role models, their academic outcomes are suffering due to classroom racial dynamics.

Dee (2005) reviewed different types of interactions students and teachers have based on demographics and described these interactions as "effects." "Passive" and "active" teacher effects are the primary classifications. Passive teacher effects are *not* due to a teacher's behavior, but rather their race, ethnicity, or gender identity. Active teacher effects are brought on by a teacher's biases in their previous interactions with (or expectations of) students of a different race, ethnicity, or gender identity (Dee, 2005). "Role-model" effects are when a teacher of the same race increases a student's academic motivation, as well as their expectations. However, when students perceive stereotyping from their teacher, their academic identity and achievement is negatively impacted. Subsequently, Dee (2005) demonstrated that these specific types of teacher effects (passive and active) change teacher perceptions of students.

Dee (2005) used samples from 1,052 schools (both public and private) that included data from a longitudinal study from 24,599 eighth-grade students and 21,324 teachers. Two surveys were collected from randomly selected students and their mathematics, science, reading, and social studies teachers. Teachers' surveys assessed observations of classroom performance and personal traits of randomly selected students. Specifically, surveys asked about the sampled student's frequencies of disruption, inattentiveness, and rates of homework completion. Teachers' and students' race and ethnicity were identified, and it should be noted that 67% of Black students and 89% of

Hispanic students were being taught by teachers that did not share their same race or ethnicity. Dee's (2005) OLS linear regression models showed that students who did not share the same race or ethnicity were 1.36 times more likely to be seen as disruptive by their teacher.

Lindsay and Hart (2017) explained how the use of *exclusionary discipline* is a disciplinary technique that is overused with Black students. Out-of-school suspensions, expulsion, and in-school suspensions are enforced by removing students from the classroom. This type of discipline in turn reduces instructional time which exacerbates educational gaps. Using administration data based in North Carolina between the school years of 2007–2008 and 2012–2013, Lindsay and Hart (2017) determined that Black students who have a greater proportion of Black teachers, in turn, have decreased rates of receiving exclusionary discipline.

Teacher expectations have been widely researched due to their relatedness to student achievement outcomes. In 1968, Rosenthal and Jacobson (1968) conducted an experiment that showed students who were considered "growth spurters," because teachers' expectations, had a significant increases in their IQ compared to their counterparts whom teachers had lowered expectations for academic growth (p.1). Rosenthal and Jacobson (1968) called this experiment the "Pygmalion" study because of its demonstration of the *Pygmalion effect.* The *Pygmalion effect* is defined as how interpersonal expectations translate to self-fulfilling prophecies and educational outcomes. The Rosenthal and Jacobson experiment demonstrated how teachers treat students differently based on their own expectations in four specific ways: climate, input, output, and feedback (Rosenthal, 2001). *Climate* or affect refers to the teacher's nonverbal cues, creating a socio-emotional climate that is warmer for students they have

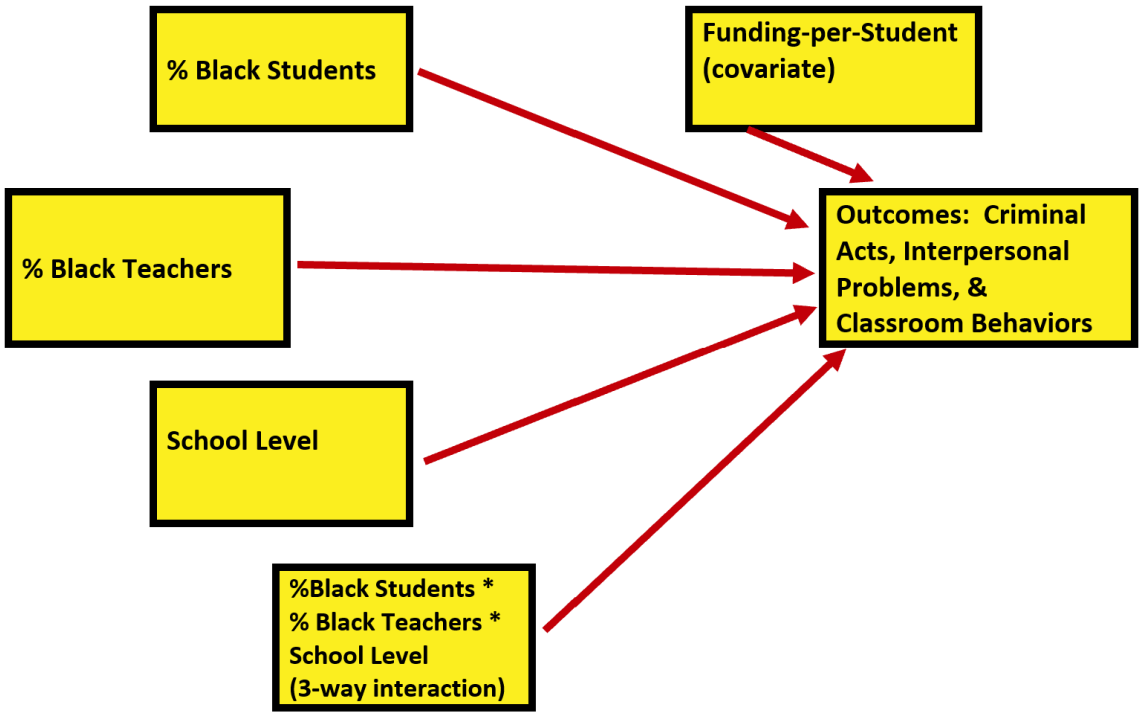
higher expectations for, or their "special" students. *Input* or effort alludes to the type of material that is introduced to "special" students which most often is more challenging. *Output* is explained as allowing "special" students more opportunities and time to respond to teacher's questions. Lastly, Rosenthal (2001) defined *feedback* as teachers' verbal and nonverbal reports of how a student is doing. Rosenthal (2001) mentioned that "special" students received more *and* specific feedback. These four factors from Rosenthal and Jacobson's (1968) experiment launched many researchers into examining teachers' expectations and outcomes for students.

Beady and Hansell (1981) investigated how a teacher's race impacts expectations of Black student success; more specifically through analyzing teacher expectations of students' mathematics and reading scores. Beady and Hansell (1981) used a sample of 441 fourth and fifth grade teachers' (129 Black and 312 White) responses to a questionnaire about attitudes regarding students' academic success and effort. This questionnaire asked teachers about students' current and future academic successes as well as teacher and student race. After performing a factor analysis, they found that White teachers had significantly lower expectations for Black students to enter and complete college in comparison to Black teachers. Furthermore, Beady and Hansell's (1981) data suggested that Black students with a greater proportion of Black teachers were higher achieving than Black students who attended schools with a greater proportion of White teachers. Beady and Hansell's (1981) article displays Rosenthal and Jacobson's *Pygmalion effect, showing that* teachers' expectations result in behaviors that impact Black students' academic achievement.

Countless studies have shown that racial dynamics inside of a classroom (both teacher and student race) can have major impacts on students (Dee, 2004; Egalite et al.,

2015; Grissom & Redding, 2016; Klopfenstein, 2005; Pang & Gibson, 2001; Villegas & Irvine, 2010). Teacher effects can be considered active and/or passive and have been shown to negatively impact perceptions of Black students (Dee, 2005). Black students receive less exclusionary discipline techniques when in schools with more Black teachers (Lindsay and Hart, 2017). Beady and Hansell's (1981) results demonstrated how low teacher expectations translate to poor academic outcomes, or in other words, the *Pygmalion effect* (Rosenthal & Jacobson, 1968).

Figure 1. Proposed Model



Study Purpose

The purpose of this study is to investigate school-level behavioral outcomes in relation to the proportion of Black teachers in their schools (see Figure 1). The model will control for school funding and school level (e.g., primary, middle, high, combined).

Research outcomes such as these can help support policy makers in making better decisions for children who attend public schools. More informed decisions within the school system will enhance the effectiveness of elementary and secondary school teachers, as well as the education of Black elementary and secondary students.

CHAPTER II - **METHOD**

Sampling Procedures and Participant Characteristics

Data for this dissertation was from the National Teacher and Principal Survey (NTPS) 2015-2016 School Year, which is the primary database for The Department of Education and authorized by the Education Sciences Reform Act of 2002, 20 U.S. Code §9541(b) and §9543(a). Data was analyzed at the level of the school and these surveys include responses from approximately 19,800 public schools.

Because the data in the NTPS includes sensitive information, I applied for a restricted data license through the Institute of Education Sciences (IES). My restricted data license (#20100006) was approved for the period ranging from July 27th, 2021 to July 27th, 2024.

This dissertation also utilized data from the 2015-16 Civil Rights Data Collection (CRDC). This data collection is from the United States Department of Education's Office for Civil Rights authorized by Section 203(c)(1) of the 1979 Department of Education Organization Act (U.S. Department of Education, Office for Civil Rights, 2019). The CRDC is a survey that was designed to collect information from public school districts in the USA. This information includes student enrollment disaggregated by race and sex. It also provides information about course and program access, funding, staff information, and other information that influences the equity of education for students (U.S. Department of Education, Office for Civil Rights, 2019). While the Office for Civil

Rights uses this data to monitor and enforce activities in public school, the CRDC can be a valuable resource for policymakers, educators, federal agencies, etc. (U.S. Department of Education, Office for Civil Rights, 2019). This data is available and downloadable on the CRDC's website for the general public.

Measures and Covariates

The NTPS survey consists of four "questionnaires [or subscales] that provide descriptive data on the context of elementary and secondary education while also giving policy makers a variety of statistics on the condition of education in the United States (IES, 2020)". The IES (2020) allows the NTPS data to be utilized by persons who are interested in K-12 education; this may consist of teacher professional organizations, education advocacy groups, legislators, researchers, and journalists. The first questionnaire is the Teacher Listing Form that collects the list of teachers from each school. A sample of teachers were selected from this list to complete the fourth questionnaire. The second questionnaire is the School Questionnaire that collects school characteristic information, such as school staffing, special programs, and services. The third is the Principal Questionnaire which gathers information about the principal and includes the principal's perceptions about school climate and safety. The fourth is the Teacher Questionnaire that obtains information on the sampled teachers, school climate, class organization, and teacher attitudes. The core topics and concepts in which the NTPS collects data on are teacher and principal preparation, classes taught, school characteristics, demographics of the school staff, professional development, working conditions, and evaluation. The NTPS 2015-2016 School Year Survey was collected from a large sample of US public and charter elementary and secondary schools with subgroups of elementary, middle, high and combined schools. These schools were based

in urban, suburban, rural, and town settings. The NTPS used several types of question formats including Likert scales, number and text entry, and multiple-choice check boxes (IES, 2020). The IES distributed and collected the NTPS survey and responses by mail-based methodology and internet reporting (IES, 2020). The response rate for the School Questionnaire was 72.5%. The response rates to the Principal Questionnaire and the Teacher Listing form were 71.8% and 84.4%, respectively. The Teacher Questionnaire response rate was 67.8%. My dissertation utilized data from School, Teacher, and Principal Questionnaires. Across the Teacher and Principal Questionnaires, there were 18 items related to behavioral and disciplinary outcomes. Because separate analyses at the item level would be difficult to interpret and, potentially, contribute to Type I error (i.e., false positives) I created outcome measures through the dimension-reducing approach of factor analysis.

Principal-Estimated Behaviors

The 12 questions and responses from the Principal Questionnaire used for my dissertation were gathered from subsection three, "School Climate and Safety." Principals were tasked with answering the question of, "To the best of your knowledge, how often do the following types of problems occur at this school." The 12 questions used a five-point Likert scale ranging from 1 (*Happens daily*) to 5 (*Never happens*; IES, 2020). Example items include "Robbery or theft," "Student racial tensions," and "Widespread disorder in classrooms" (IES, 2020).

The dimensionality of the 12 items from the Principal Questionnaire derived from the NTPS was analyzed using principal axis factoring. First, data screenings were conducted to determine the suitability of the data for these analyses. The Kaiser-Meyer-Olkin measure of sampling adequacy (KMO; Kaiser, 1970) represents the ratio of the

squared correlation between variables to the squared partial correlation between variables. KMO ranges from 0.00 to 1.00; values closer to 1.00 indicate that the patterns of correlations are relatively compact, and that factor analysis should yield distinct and reliable factors (Field, 2005). In our dataset, the KMO value was .84, indicating acceptable sampling adequacy. The Barlett's Test of Sphericity examines whether the population correlation matrix resembles an identity matrix (Field, 2005). When the *p* value for the Bartlett's test is < .05, I am fairly certain I have clusters of correlated variables. In the dataset, X^2 (66) = 108490.50, $p < .001$. The determinant of the correlation matrix alerts me to any issues of multicollinearity or singularity and should be larger than 0.00001. My determinant was 0.02019 and, again, indicated that my data was suitable for the analysis.

Four criteria were used to determine the number of factors to rotate: a priori theory, the scree test, the Eigenvalue-greater-than-one criteria, and the interpretability of the factor solution. The scree test and Eigenvalue-greater-than-one criteria suggested two factors. Based on the convergence of these decisions, two factors were rotated using the orthogonal, Varimax procedure. The rotated solution, as shown in Table 1, yielded two interpretable factors: criminal acts and interpersonal problems. The Cronbach's alpha coefficients (an indicator of internal consistency) were 0.78 and 0.76 for the two scales.

Table 1. *Principal components analysis of school climate and school safety items*

Item	Criminal acts	Interpersonal problems
Student use of illegal drugs	**0.89**	0.03
Student use of alcohol	**0.86**	-0.02
Robbery or theft	**0.47**	0.38
Student possession of weapons	**0.41**	0.31
Vandalism	**0.40**	0.39
Gang activities	**0.39**	0.34
Student verbal abuse of teachers	0.25	**0.76**
Student acts of disrespect for teachers	0.19	**0.70**
Widespread disorder in classrooms	0.11	**0.58**
Student bullying	0.26	**0.48**
Physical abuse of teachers	-0.09	**0.45**
Student racial tensions	0.30	**0.38**
SS loadings	2.51	2.50
Proportion variance	0.21	0.21
Cumulative variance	0.21	0.42
Proportion explained	0.50	0.50
Cumulative proportion	0.50	1.00

Note. Values are factor loadings. Bold represents scale membership.

Teacher-Estimated Classroom Behaviors

The six questions and responses from the Teacher Questionnaire used for this dissertation were gathered from subsection seven "School Climate and Teacher Attitudes." Teachers were tasked with answering, "To what extent is each of the following a problem in this school." The 6 questions used a four-point Likert scale ranging from 1 *(Serious Problem)* to 4 *(Not a problem;* IES, 2020). Example items include "Student apathy," "Student class cutting," and "Students come to school unprepared to learn" (IES, 2020).

The dimensionality of 6 items from the teacher questionnaire derived from the NTPS was analyzed using principal axis factoring. In the dataset, the KMO value was .80, indicating acceptable sampling adequacy. Results from the Barlett's Test of Sphericity supported the presence of clusters of correlated variables (X^2 [15] = 71158.45 $p < .001$). The determinant, (0.07734673) indicated the data was not characterized by multicollinearity or singularity.

The scree test and Eigenvalue-greater-than-one criteria both suggested one factor. Based on the convergence of these decisions, one factor was rotated using the orthogonal, Varimax procedure. The rotated solution, as shown in Table 2, yielded one interpretable factor: Teacher Ratings. The Cronbach's alpha coefficient was 0.84.

Table 2

Principal Components Analysis of Teacher-Estimated Classroom Behaviors

Item	Classroom behaviors
Student absenteeism	**0.80**
Student tardiness	**0.73**
Student class cutting	**0.70**
Student apathy	**0.67**
Students come to school unprepared to learn	**0.66**
Students dropping out	**0.59**
SS loadings	2.91
Proportion variance	0.48

Note. Values are factor loadings on this unidimensional scale

School Characteristics

From the School Questionnaire, I used data from section one, General Information About This School and section two, School Staffing. Section one data provided school level information (i.e., primary, middle, high, combined). The total number of students was also gathered from section one. Section two provided how many Black teachers, full, and part-time teachers are working at each school. To calculate the percentage of Black teachers, I divided the total amount of Black teachers by the total amount of teachers.

I calculated the percentage of Black students and total school funding from the CRDC. I added the amount of Black male and female students at each school from the CRDC and divided that value into the total number of enrolled students. I added the amount of non-personnel expenditures associated with activities funded with federal, state, and local funds to the salary expenditures for total personnel (instructional, support services, and school administration) funded with federal, state, and local funds in order to obtain total school funding.

Sample Size, Power, and Precision

I conducted a power analysis with the *wp.regression* function in the R package WebPower (v.0.5.2). I specified a power analysis with five predictors, a small effect (i.e., $f^2 = .02$), alpha = 0.05, and power = 0.80. The results suggested a minimum of 647 school districts. Given the "big data" nature of this study, my analysis was overpowered. Therefore, in the interpretation of results I take into consideration the magnitude of effect sizes and the possibility of committing a Type I error (i.e., a false positive).

Analytic Strategy

To evaluate the effects of school-level disciplinary problems and actions as a function of the proportion of students and faculty (assessed separately) who are Black, three separate hierarchical linear regressions were conducted. The dependent variables were the two factors from the principal survey (criminal acts, in-school problems) and the single factor from the teacher survey (teacher problems). Predictors were added in two stages. To control for the potential effects of school funding, it was entered in block one. The second block added the focal variables: percent of students who are Black, percent of teachers who are Black, and school level. The third block included a three-way interaction term of those same three variables.

CHAPTER III - **RESULTS**

Data Diagnostics

Preliminary analyses assessed the data for univariate and multivariate normality. Along with means, standard deviations, and bivariate correlations, skew and kurtosis are reported for the variables in Table 3. Kline (2016) suggested that skewness and kurtosis are not concerning when values fall below the absolute values of 3 and 20, respectively. None of the values of the focal variables exceeded these thresholds. Funding per student,

used as a covariate, did have a skew value of 16.78 and a kurtosis value of 341.85, meaning that school funding was sharply clustered at the lower end of the distribution.

A Mahalanobis Distance test was used to evaluate multivariate normality. The mean of the Mahalanobis distance test was 6.41 with a standard deviation of 56.41. There were 19 schools whose Mahalanobis values were outliers (greater than 3 standard deviations beyond the value of 6.41). I deleted these, bringing the total number of schools included in the analysis to 25,818.

Table 3

Means, Standard Deviations, Bivariate Correlations, Skew, and Kurtosis of Study Variables

Variable	*M*	*SD*	1	2	3	4	5	Skew	Kurtosis
FundPerStud	7008.34	18345.43						16.78	341.85
% Black students	13.36	21.84	.03**					2.37	5.30
% Black teachers	6.25	14.64	.01	.73**				3.76	15.42
Criminal acts	4.40	0.40	.03**	-.00	-.01			-0.93	1.93
Interpersonal problems	4.13	0.49	.02**	-.17**	-.09**	.48**		-1.17	1.95
Classroom behaviors	2.82	0.67	.02**	-.17**	-.13**	.38**	.25**	-0.40	-0.36

Note. $^{*}p < .05$. $^{**}p < .01$.

Primary Analysis

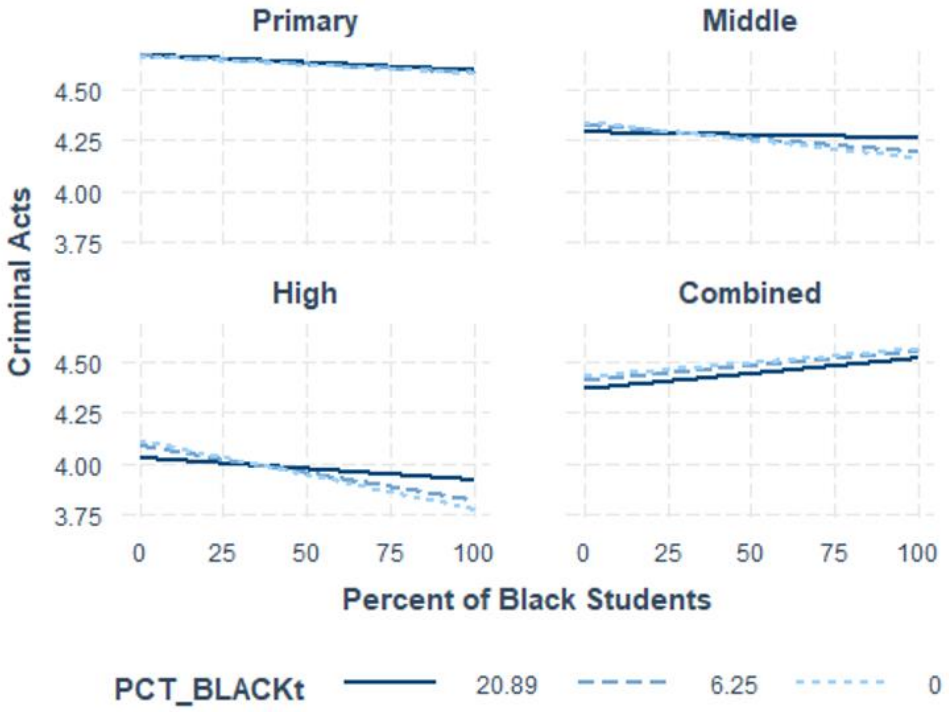
For each of the dependent variables (e.g., criminal acts, in-school problems, teacher estimated classroom behaviors) I used hierarchical liner regression. I predicted each of the dependent variables in three blocks and then compared the blocks to determine if they improved the model in a significant way. To control for the effects of school funding, I entered it as a single predictor in the first block. In the second block I added the three focal predictors –percent of Black students in the school, percent of Black teachers in the school, and school level (middle school, high-school, and combined schools). In the third block I added a three-way interaction term of the three focal predictors. All results are presented in Table 4. Across all results I note that while most were statistically significant, the regression weights and effect sizes are quite low and often near-zero. Statistical significance in the presence of low effect sizes is attributed to "big data" (large sample size) nature and likely a Type I (false positive) error.

Criminal Acts

As shown in Table 4, the regression coefficient associated with the covariate, school funding (Block 1), was statistically significant, yet negligible in magnitude (B = 0.0000006277, $p <$ .001). Further, the R^2 value (0.0008378) suggested that funding accounted for less than one percent of variation in criminal acts. For the second block, adding percent of Black students, percent of Black teachers, and school level resulted in a model that explained 37% of the variance. Each of the predictors were statistically significant. While the percent of Black students (B = -.0007, $p <$ .001) and percent of Black teachers (B – 0.006, p = 0.003) made statistically significant contributions, their regression weights were quite low. The biggest contribution was from school level, such that as grade level increased, so did criminal acts. For example, relative to elementary

school students, criminal acts were 0.33 ($p < .001$) higher in middle school and 0.58 ($p < .001$) in high school. Not surprisingly, the three-way interactions added in block three were also statistically significant. The results of these interacting effects are illustrated in Figure 2. Here we see that criminal activity is lowest in primary school and highest in high school. The interaction effects are clearest in middle and high school where increased criminal activity is associated with an increased proportion of Black students. As shown in the solid line, the presence of Black teachers is a protective factor, with fewer criminal acts associated with a greater percentage of Black teachers.

Figure 2. Criminal Acts as a Function of Percentages of Black Students, Teachers, and School Level



Note. The interaction plot controls for the non-significant effects of school funding

Table 4

Results of Hierarchical Linear Regression Predicting Criminal Acts, Interpersonal Problems, and Classroom Behaviors

Criminal acts	Block 1			Block 2			Block 3		
	B	*SE B*	*p*	*B*	*SE B*	*p*	*B*	*SE B*	*p*
Intercept	4.394	0.002	< 0.001	4.653	0.003	< 0.001	4.655	0.004	<0.001
Funding per student	< 0.001	< 0.001	< 0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Percent of students who are Black				-0.001	0.001	<0.001	-0.001	0.002	<0.001
Percent of teachers who are Black				0.001	<0.001	0.003	0.004	0.001	0.450
Middle school				-0.332	0.005	<0.001	-0.323	0.007	<0.001
High school				-0.580	0.005	<0.001	-0.551	0.007	<0.001
Combined schools				-0.227	0.006	<0.001	-0.238	0.006	<0.001
Student% * teacher% * middle							<0.001	<0.001	<0.001
Student% * teacher% * high							<0.001	<0.001	<0.001
Student% * teacher% * combined							<0.001	<0.001	0.878
Summary statistics for each block	F (1, 25816) = 21.65, p < .001 R^2 = 0.0008			F (6, 25811) = 2483, p < .001 R^2 = 0.366			F (16, 25801) = 963.4, p < .001 R^2 = 0.374		

Interpersonal problems	Block 1			Block 2			Block 3		
	B	*SE B*	*p*	*B*	*SE B*	*p*	*B*	*SE B*	*p*
Intercept	4.124	0.003	<0.001	4.262	0.005	<0.001	4.281	0.006	<0.001
Funding per student	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Percent of students who are Black				-0.005	<0.001	<0.001	-0.006	<0.001	<0.001
Percent of teachers who are Black				0.003	<0.001	<0.001	-0.002	<0.001	<0.001
Middle school				-0.203	0.008	<0.001	-0.208	0.011	0.007
High school				-0.142	0.007	<0.001	-0.139	0.009	<0.001
Combined schools				-0.046	0.010	<0.001	-0.049	0.012	<0.001
Student% * teacher% * middle							<0.001	<0.001	0.904
Student% * teacher% * high							<0.001	<0.001	<0.001
Student% * teacher% * combined							<0.001	<0.001	0.348
Summary statistics for each block	F (1, 25816) = 9.282, p = 0.002 R^2 = 0.0004			F (6, 25811) = 274.6, p < 0.001 R^2 = 0.0600			F(16, 25801 = 118.6, p < 0.001 R^2 = 0.0685		

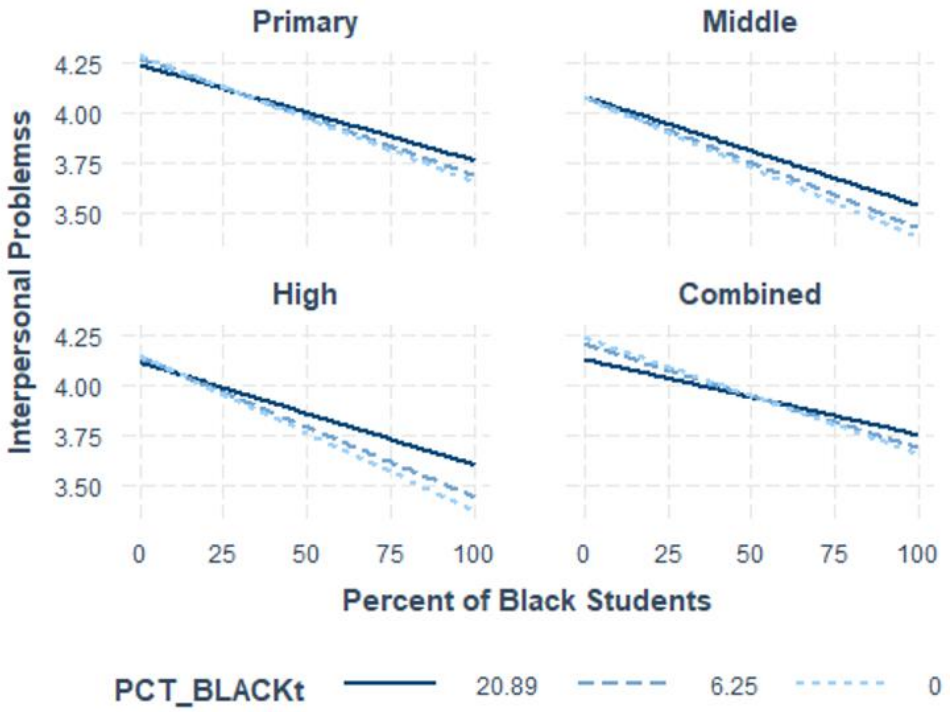
Classroom behaviors	*B*	*SE B*	*p*	*B*	*SE B*	*p*	*B*	*SE B*	*p*
Intercept	2.814	0.004	<0.001	3.145	0.007	<0.001	3.158	0.008	<0.001
Funding per student	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Percent of students who are Black				-0.006	<0.001	<0.001	-0.007	<0.001	<0.001
Percent of teachers who are Black				<0.001	<0.001	0.307	-0.004	0.001	<0.001
Middle school				-0.232	0.010	<0.001	-0.225	0.013	<0.001
High school				-0.633	0.009	<0.001	-0.595	0.012	<0.001
Combined schools				-0.293	0.013	<0.001	-0.315	0.015	<0.001
Student% * teacher% * middle							<0.001	<0.001	0.022
Student% * teacher% * high							<0.001	<0.001	<0.001
Student% * teacher% * combined							<0.001	<0.001	0.966
Summary statistics for each block	F (1, 25816) = 12.1, p < 0.001 R^2 = 0.0005			F (6, 25811) = 12.1, p < 0.001 R^2 = 0.1793			F(16, 25801) = 369.7, p < 0.001 R^2 = 0.1865		

Note. Adding the interaction term in Block 3 produced 6 two-way interactions in addition to the 3, three-way interaction. Given that I were interested in the 3-way interaction, I report only those.

Interpersonal Problems

The first block of the interpersonal problems hierarchical linear regression analysis showed a model to be statistically significant. However, the regression coefficient was negligible (B = 0.0000005104, p = 0.00232) and the R^2 value (0.0003594) suggests that funding accounted for less than one percent of variation. For the second block, adding percent of Black students, percent of Black teachers, and school level resulted in a model that explained 7% of the variance. Each of the predictors were statistically significant. Although including the percent of Black students (B = -0.006 p < .001) and percent of Black teachers (B = *-0.002*, p = 0.007) resulted in statistically significant contributions, their regression weights were quite low. Again, the biggest contribution was from school level. For example, relative to elementary schools, interpersonal problems in middle schools were 0.21 (p < .001) higher. Similarly, interpersonal problems in high school were –0.14 (p < .001) greater. In addition, the three-way interactions added in block three were statistically significant. The results of these interacting effects are illustrated in Figure 3. Here interpersonal problems are lowest in primary school and highest in middle and high school. The interaction effects are clearest in combined and high schools where increased interpersonal problems are associated with an increased proportion of Black students. As shown in the solid line, the presence of Black teachers is a protective factor, with fewer interpersonal problems associated with a greater percentage of Black teachers.

Figure 3. Interpersonal Problems as a Function of Percentages of Black Students, Teachers, and School Level

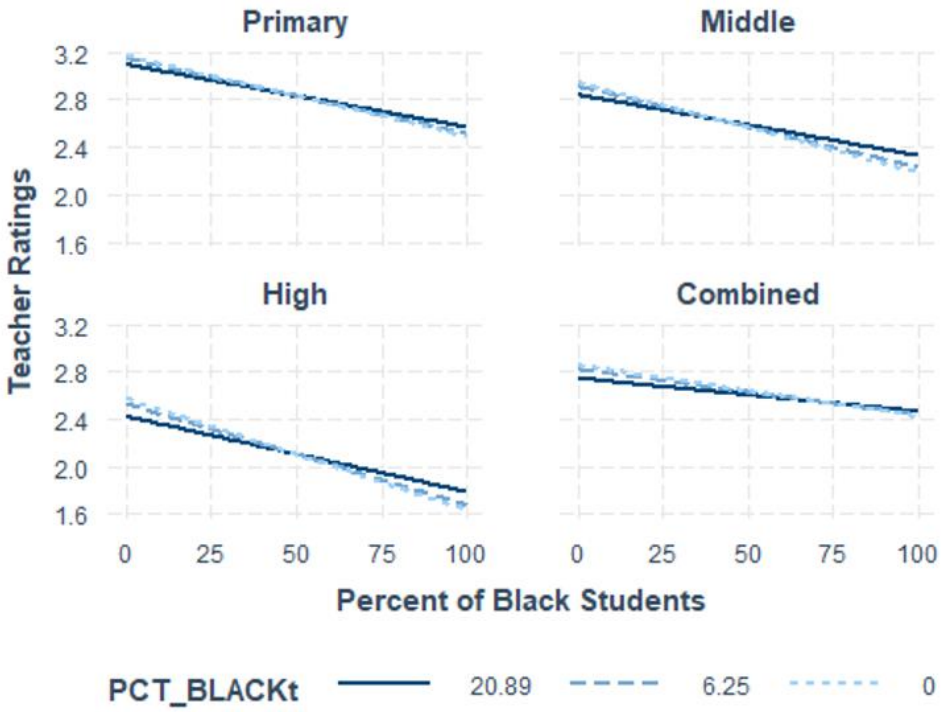


Note. The interaction plot controls for the non-significant effects of school funding.

Classroom Behaviors

In our third hierarchical linear regression, the dependent variable was teacher estimated classroom behaviors. The first block showed a model to be statistically significant. Again, the regression coefficient was negligible ($B = 0.0000007916$, $p < .001$) and the R^2 value of (0.0004686) suggests that funding accounted for less than one percent of variation. The second block, adding percent of Black students, percent of Black teachers, and school level resulted in a model that explained 18% of the variance. Each of the predictors were statistically significant. Although the percent of Black students ($B = -0.0068$ $p < .001$) and the percent of Black teachers ($B = -0.0035$ $p < .001$) made statistically significant contributions, their regression weights were quite low. The biggest contributor to teacher ratings was school level. Similar to the other models, when compared to elementary schools, middle, high, and combined schools resulted in more problematic estimates of classroom behaviors by .23, .63, and .29 points, respectively. The three-way interactions added in block three were also statistically significant. The results of these interacting effects are illustrated in Figure 4. Here we see that problematic classroom behaviors are highest in combined schools and high schools. The interaction effects are clearest in middle and high schools where problematic classroom behaviors are associated with an increased proportion of Black students. As shown in the solid line, the presence of Black teachers is a protective factor, with fewer problematic classroom behaviors associated with a greater percentage of Black teachers.

Figure 4. Classroom Behaviors as a Function of Percentages of Black Students, Teachers, and School Level



Note. The interaction plot controls for the non-significant effects of school funding.

CHAPTER IV - **Discussion**

The purpose of this study is to investigate school-level behavioral outcomes in relation to the proportion of Black teachers in their schools. Results of these analyses demonstrate that, when the proportion of Black students is higher, Black teachers can be a protective factor against in-school criminal acts, interpersonal problems, and problematic classroom behaviors. This was especially true for middle, high and combined school students. This finding likely corresponds with the developmental age and overall lower reports of problematic behaviors in primary schools.

The criminal acts included in this analysis included use of drugs and alcohol, theft, vandalism, and possession of weapons. Some of these behaviors have been studied previously. For example, LaRusso et al. (2008) found that students who felt support from their school and had teachers who understood their needs were less likely to engage in risky drug use. It has been shown that Black teachers have higher expectations, than White teachers, of Black students (Beady & Hansell, 1981) therefore one could speculate that these expectations are accompanied by strong behavioral support of Black students. Additionally, Black teachers are much more likely to be embedded in the Black community; this facilitates greater understanding of and connections with Black students. Pang and Gibson (2001) stated that Black educators bring their ethnic family backgrounds and experiences which, lead to greater understanding of Black students and their needs.

McNeely et al.'s (2002) stage-environment fit theory may provide additional insight into these findings. The stage-environment fit theory purports an adolescent's behaviors, among other things, are influenced by their own stage of development and

their social environment, or school. During middle and high school, opportunities to demonstrate competence and receive care and support are primary developmental needs. Black teachers' greater expectations from their Black students may create opportunities for Black students to display competency. This has been shown by Black teachers placing Black students in gifted programs at higher rates that White teachers (Grissom et al., 2015). Further, Black teachers' location within the Black community may provide more care and support. Considered together, the developmental stage combined with a sense of inclusion and increased expectations provides a protective factor against drug use, violent behaviors, vandalism, and theft (McNeely et al., 2002).

The interpersonal problems that were assessed were primarily respect and relationships between teacher and student. The results demonstrated that the presence of Black teachers within schools, with the highest percentages of Black students, was associated with lower rates of student verbal abuse of teachers, student acts of disrespect for teachers, widespread disorder in classrooms, and physical abuse of teachers. Although the teachers' ratings were for the whole school and not Black students in particular, especially when we consider the interaction effects at the highest percent of Black students, these findings have some alignment with Irvine's (1989) position of non-minority teachers' lack of understanding Black student's behaviors, physical movements, language (verbal and nonverbal), moral principles, mindsets, home environments, and styles of learning. This lack of understanding can result in behavioral problems in minority students. For example, Black students' use of Black English, or African American Vernacular English and demeanor attributes to clashes in addition to conscious and unconscious miscommunications (Irvine, 1989). Lastly, Irvine (1989) explained that

Black teachers are more equipped to understand Black students because of their personal identities.

Teacher estimated classroom behaviors included absenteeism, tardiness, class cutting, and dropping out. This dissertation demonstrated that, in the context of schools with the greatest percentage of Black students, correspondingly greater percentages of Black teachers serve as a protective factor against dropout rates and nonparticipation. For the most part I have talked about teachers' actions towards and perceptions of Black students, however, these factors seem to involve the opposite. It is equally important to investigate how Black students feel about their teachers, principals, and schools. Previously, I mentioned that Black teachers are more than role models (Pang & Gibson, 2001); Irvine (1989) extended this thought by saying Black teachers are also perceived as mentors by Black students. Black students look to teachers for acceptance, trustworthiness, and support. Black students are keenly aware that White teachers' insistence on rules, regulations, and other procedures are often not in the student's best interest (Irvine, 1989). Irvine (1989) further explained that, as mentors, Black teachers are, “willing to question and defy rules and regulations that are not in the best interest of their students.” I believe the mechanisms behind greater participation of Black students who have greater percentages of Black teachers is that students feel more uniquely cared for and supported by Black teachers, which enhances their interest in school. After all, Voelkl (1997), Booker and Lim (2018), have connected support, community, and positive teacher relationships to increased participation amongst Black students.

White teachers have increased negative perceptions and appraisals of their Black students when compared to White students (Downey & Pribesh, 2004; Ferguson, 2003; Oates, 2003; Shi & Zhu, 2022). Therefore, the teacher questionnaire appraising Black

students' behaviors at schools with higher percentages of Black students could have an error of bias. This bias could possibly increase scores on the two factors of student apathy and students come to school unprepared to learn. This demonstrates the need for Black teachers. Black teachers may have a more accurate interpretation of Black student behaviors.

Lastly, teacher self-efficacy is defined as instructors' beliefs about their instructional abilities, classroom management, and emotional support behaviors while also being connected to students' motivation and academic outcomes (Davis et al., 2022; Milner & Hoy, 2003). Davis et al. (2022) report that racial congruence affects self-efficacy in classroom management. Milner and Hoy (2003) extend this thought by suggesting that behaviors, such as classroom goals and investment in teaching, are influenced by self-efficacy. In addition, Kunemund et al's. 2020 study found that greater proportions of student-teacher racial mismatch was related to decreased levels of teacher classroom management self-efficacy. These lower levels of self-efficacy were associated with increased teacher-perceived conflict between racially different teacher and student pairs (Kunemund et al., 2020). The teacher self-efficacy theory paired with the current literature suggests that Black teachers may have increased self-efficacy with Black students. This could be in result of Irvine's (1989) statements of how Black teachers are highly likely to understand Black students which affects their teaching style and performance. In conclusion, race of the teacher and student undoubtedly affects teacher self-efficacy which in turn affects teacher's behaviors and performance. In relation to my findings teacher self-efficacy could serve as a mechanism behind decreased criminal acts, interpersonal problems, and classroom behaviors within the context of schools with high proportions of Black students and teachers.

Limitations

The results of this analysis should be interpreted within the context of limitations. First, the data was Likert-style ratings of students' behavior from principals and teachers. The principal and teacher ratings were for their entire schools and students' background information (e.g., race/ethnicity, gender) is not accounted for in these models. The limitation posed by this is the aggregation at the *whole school* level. While the CRDC data set provided actual frequencies of various behaviors (e.g., expulsions, suspensions) disaggregated by race/ethnicity, it was difficult to model and interpret because the ratings were such at a low frequency that they were severely, non-normally, skewed, and there was not a clear way to combine them.

A second, significant limitation is that the data is from the 2015-16 school year. This means that it was gathered prior to the Trump presidency (and impacts to the U.S. Department of Education), the COVID-19 pandemic, and other significant events such as the Black Lives Movement following the George Floyd shooting, the insurrection at the U.S. Capital, and a resurgence of post-pandemic school shootings. These events may have impacted school culture and climate in ways that are not assessed in this study.

Future Research

In order to have a greater understanding of the relationship and interactions of Black/White teachers and Black students it would be imperative for researchers to look into the teacher-to-individual student relationship (e.g., dyadic analyses) as well as teacher effects of students nested in classrooms (e.g., multilevel analyses). Disaggregating this data would increase detailed information and would help understand strengths and weaknesses between teachers and students. Furthermore, mechanisms behind deferentially academic, relational, and behavioral outcomes with Black students

could be understood further. For example, earlier I suggested that teacher self-efficacy likely has an effect on teachers' performance (therefore student outcomes). Researchers in current literature hypothesize several different reasons behind why Black students with Black teachers have better outcomes. These hypotheses include the role-model effect, greater teacher expectations, Black teachers being advocates, and a greater sense of community, and so forth (Ahébée, 2021). Therefore, looking at school-wide outcomes, in a multi-level analysis, is imperative and future research should strive to analyze disaggregated data as well as, one-on-one teacher-student dyads.

In addition, the Critical Race Theory suggests that Black voices are competent to report their own experiences. Additionally, Black voices should be trusted to edit, add to, and create remedies to problems within the Black community. Quantitative research does not capture the perception and voices of the subjects but rather the author. Black voices are more clearly referenced in qualitive research. Not only should quantitative research be used as advisement, but qualitative research should be use by policymakers. CRT argues along with many researchers that both qualitative and quantitative research is valuable (Berríos & Lucca, 2006; Duffy & Chenail, 2009; Goldman, 1989; Howard, 1986). In conclusion, more qualitative research inside of schools with Black teachers and Black students in order to make accurate and helpful recommendations to policymakers.

Conclusion

Although the percentages of explained variance are relatively modest, the findings from this study provide support that in the context of schools with a significant proportion of Black students, a correspondingly high proportion of Black teachers provides a protective factor against criminal acts, interpersonal problems, and problematic classroom behaviors – especially in middle and high schools. Many articles

have recommended the hiring of more Black teachers (Graham, 1987; Irvine, 1989; Madkins, 2011; Milner, 2006; Villegas & Lucas, 2004). The findings of this dissertation encourage policy makers and schools to prioritize hiring and retaining Black teachers. Black teachers have real histories and stakes in the Black community which translates to the classroom not only as role models for Black students, but mentors who understand these students. Black teachers can naturally communicate with their students while holding them to high standards, encouraging Black students to academically succeed. Beside greater academic achievement, Black teachers can buffer against criminal activities and poor interpersonal relationships while having more favorable ratings for Black students. By 2027, Black students will make up over 15% of the students in America. Policies need to be adjusted and put into place to help the large educational achievement and disciplinary gaps. As the Critical Race Theory posits, racism is an ordinary occurrence in our society which makes it difficult to remedy. Furthermore, this racism is not excluded from our classrooms and creates privileges and gains for White students while Black students suffer. Lastly, Critical Race Theory, current literature, and this dissertation implore that Black voices are needed, in the form of teachers, to help close the large achievement and disciplinary gaps between White and Black students.

References

Ahébée, S. (2021). 'They see me as a role model': Black teachers improve education outcomes for Black students. *WHYY.Org*.

Anderson, K. P., & Ritter, G. W. (2017). Disparate use of exclusionary discipline: Evidence on inequities in school discipline from a U.S. state. *Education Policy Analysis Archives*, *25*, 49. https://doi.org/10.14507/epaa.25.2787

Beady, C. H., & Hansell, S. (1981). Teacher race and expectations for student achievement. *American Educational Research Journal*, *18*(2), 191–206. https://doi.org/10.3102/00028312018002191

Bell, D. A. (1980). Brown v. Board of Education and the Interest-Convergence Dilemma. *Harvard Law Review*, *93*(3), 518. https://doi.org/10.2307/1340546

Berríos, R., & Lucca, N. (2006). Qualitative Methodology in Counseling Research: Recent Contributions and Challenges for a New Century. *Journal of Counseling & Development*, *84*(2), 174–186. https://doi.org/10.1002/j.1556-6678.2006.tb00393.x

Bohrnstedt, G., Kitmitto, S., Ogut, B., Sherman, D., and Chan, D. (n.d.). *School Composition and the Black–White Achievement Gap*.

Booker, K. C., & Lim, J. H. (2018). Belongingness and pedagogy: Engaging African American girls in middle school mathematics. *Youth & Society*, *50*(8), 1037–1055. https://doi.org/10.1177/0044118X16652757

Bradshaw, C. P., Mitchell, M. M., O'Brennan, L. M., & Leaf, P. J. (2010). Multilevel exploration of factors contributing to the overrepresentation of black students in office disciplinary referrals. *Journal of Educational Psychology*, *102*(2), 508–520. https://doi.org/10.1037/a0018450Carter, P. L., Welner, K. G., & Ladson-Billings,

G. (Eds.). (2013). *Closing the opportunity gap: What America must do to give every child an even chance*. Oxford University Press.

Chehayeb, R. E. (2019). *The Honorary White Population: Fighting for Self-Identification* [Honors Undergraduate Theses, University of Central Florida]. https://stars.library.ucf.edu/cgi/viewcontent.cgi?article=1575&context=honorstheses

Davis, C. R., Baker, C. N., Osborn, J., Overstreet, S., & the New Orleans Trauma-Informed Schools Learning Collaborative. (2022). Understanding Teacher Self-Efficacy to Address Students' Social-Emotional Needs in the COVID-19 Pandemic. Urban Education, 004208592210998. https://doi.org/10.1177/00420859221099834

Dee, T. S. (2004). Teachers, race, and student achievement in a randomized experiment. *Review of Economics and Statistics*, *86*(1), 195–210. https://doi.org/10.1162/003465304323023750

Dee, T. S. (2005). A teacher like me: Does race, ethnicity, or gender matter? *American Economic Review*, *95*(2), 158–165. https://doi.org/10.1257/000282805774670446

Delgado, R., & Stefancic, J. (2017). *Critical race theory: An introduction* (Third edition). New York University Press.

Downey, D. B., & Pribesh, S. (2004). When race matters: Teachers' evaluations of students' classroom behavior. *Sociology of Education*, *77*(4), 267–282. https://doi.org/10.1177/003804070407700401

Duffy, M., & Chenail, R. J. (2009). Values in Qualitative and Quantitative Research. Counseling and Values, 53(1), 22–38. https://doi.org/10.1002/j.2161-007X.2009.tb00111.x

Dumas, M. J. (2014). 'Losing an arm': Schooling as a site of black suffering. *Race Ethnicity and Education*, *17*(1), 1–29. https://doi.org/10.1080/13613324.2013.850412

Egalite, A. J., Kisida, B., & Winters, M. A. (2015). Representation in the classroom: The effect of own-race teachers on student achievement. *Economics of Education Review*, *45*, 44–52. https://doi.org/10.1016/j.econedurev.2015.01.007

Ford, D. Y., & Moore, J. L. (2013). Understanding and reversing underachievement, low achievement, and achievement gaps among high-ability African American males in urban school contexts. *The Urban Review*, *45*(4), 399–415. https://doi.org/10.1007/s11256-013-0256-3

Ferguson, R. F. (2003). Teachers' perceptions and expectations and the Black-White test score gap. *Urban Education*, *38*(4), 460–507. https://doi.org/10.1177/0042085903038004006

Gershenson, S., Hart, C. M., Hyman, J., Lindsay, C., & Papageorge, N. (2018). *The Long-Run Impacts of Same-Race Teachers* (No. w25254; p. w25254). National Bureau of Economic Research. https://doi.org/10.3386/w25254

Goldman, L. (1989). Moving Counseling Research into the 21st Century. The Counseling Psychologist, 17(1), 81–85. https://doi.org/10.1177/0011000089171002

Gonlin, V., Jones, N. E., & Campbell, M. E. (2020). On the (Racial) Border: Expressed race,reflected race, and the U.S.-Mexico border context. *Sociology of Race and Ethnicity*, *6*(2), 161–178. https://doi.org/10.1177/2332649218821145

Gopalan, M., & Nelson, A. A. (2019). Understanding the racial discipline gap in schools. *AERA Open*, *5*(2), 233285841984461. https://doi.org/10.1177/2332858419844613

Graham, P. A. (1987). Black teachers: a drastically scarce resource. *Phi Delta Kappan*, *68*, 598–605.

Grissom, J. A., Kern, E. C., & Rodriguez, L. A. (2015). The "representative bureaucracy" in education: Educator workforce diversity, policy outputs, and outcomes for disadvantaged students. *Educational Researcher*, *44*(3), 185–192. https://doi.org/10.3102/0013189X15580102

Grissom, J. A., & Redding, C. (2016). Discretion and disproportionality: Explaining the underrepresentation of high-achieving students of color in gifted programs. *AERA Open*, *2*(1), 233285841562217. https://doi.org/10.1177/2332858415622175

Hart, C. M. D. (2020). An honors teacher like me: Effects of access to same-race teachers on Black students' advanced-track enrollment and performance. *Educational Evaluation and Policy Analysis*, *42*(2), 163–187. https://doi.org/10.3102/0162373719898470

Heath, R. (2021, March 16). The State Department has a systemic diversity problem. Politico. https://www.politico.com/news/2021/03/16/state-department-diversity-problem-476161

Howard, G. S. (1986). The Scientist-Practitioner in Counseling Psychology: Toward a Deeper Integration of Theory, Research, and Practice. The Counseling Psychologist, 14(1), 61–105. https://doi.org/10.1177/0011000086141006

Hussar, B., NCES; Zhang, J., Hein, S., Wang, K., Roberts, A., Cui, J., Smith, M., AIR; Bullock Mann, F., Barmer, A., and Dilig, R., RTI. (2020). *The Condition of Education 2020* (NCES 2020144).

Irvine, J. J. (1989). Beyond role models: An examination of cultural influences on the pedagogical perspectives of black teachers. *Peabody Journal of Education*, *66*(4), 51–63. https://doi.org/10.1080/01619568909538662

Jackson, L. (2021). Support, educational expectancy, and academic achievement of Black males. *US : ProQuest Information & Learning*, *82*(1-A).

Jay, M. (2003). Critical race theory, multicultural education, and the hidden curriculum of hegemony. *Multicultural Perspectives*, *5*(4), 3–9. https://doi.org/10.1207/S15327892MCP0504_2

Kline, R. B. (2016). Principles and practice of structural equation modeling (4th ed.). Guilford Publications. http://ebookcentral.proquest.com/lib/spu/detail.action?docID=4000663

Klopfenstein, K. (2005). Beyond test scores: The impact of black teacher role models on rigorous mathtaking. *Contemporary Economic Policy*, *23*(3), 416–428. https://doi.org/10.1093/cep/byi031

LaRusso, M. D., Romer, D., & Selman, R. L. (2008). Teachers as builders of respectful school climates: Implications for adolescent drug use norms and depressive symptoms in high school. *Journal of Youth and Adolescence*, *37*(4), 386–398. https://doi.org/10.1007/s10964-007-9212-4

Lindsay, C. A., & Hart, C. M. D. (2017). Exposure to same-race teachers and student disciplinary outcomes for Black students in North Carolina. *Educational Evaluation and Policy Analysis*, *39*(3), 485–510. https://doi.org/10.3102/0162373717693109

Madkins, T. C. (2011). The Black teacher shortage: A literature review of historical and contemporary trends. *Journal of Negro Education*, *80*(3), 417–427.

Maghbouleh, N. (2020). From white to what? MENA and Iranian American non-white reflected race. *Ethnic and Racial Studies*, *43*(4), 613–631. https://doi.org/10.1080/01419870.2019.1599130

Matias, C. E., Montoya, R., & Nishi, N. W. M. (2016). Blocking CRT: How the emotionality of Whiteness blocks CRT in urban teacher education. *Educational Studies*, *52*(1), 1–19. https://doi.org/10.1080/00131946.2015.1120205

McNeely, C. A., Nonnemaker, J. M., & Blum, R. W. (2002). Promoting school connectedness: Evidence from the national longitudinal study of adolescent health. *Journal of School Health*, *72*(4), 138–146. https://doi.org/10.1111/j.1746-1561.2002.tb06533.x

Milner, H. R., & Hoy, A. W. (2003). A case study of an African American Teacher's self-efficacy, stereotype threat, and persistence. Teaching and Teacher Education, 19(2), 263–276. https://doi.org/10.1016/S0742-051X(02)00099-9

Milner, H. R., IV. (2006). *The Promise of Black Teachers' Success with Black Students. Educational Foundations,* 20(3/4), 89–104.

National Center for Education Statistics (NCES). (2021). *Preprimary, Elementary, and Secondary Education: Characteristics of Public School Teachers* (The Condition of Education 2021, pp. 1–7). Institute of Education Statistics. https://nces.ed.gov/programs/coe/pdf/2021/clr_508c.pdf

National Center For Education Statistics (NCES). (1995). Who influences decisionmaking about school curriculum: What do principals say? (NCES 95-780). https://nces.ed.gov/pubs95/95780.pdf

Oates, G. L. St. C. (2003). Teacher-Student racial congruence, teacher perceptions, and test performance *: Teacher-Student racial congruence. *Social Science Quarterly*, *84*(3), 508–525. https://doi.org/10.1111/1540-6237.8403002

Pang, V. O., & Gibson, R. (2001). Concepts of democracy and citizenship: Views of African American teachers. *The Social Studies*, *92*(6), 260–266. https://doi.org/10.1080/00377990109604013

Rosenthal, R. (2001). Pygmalion effect. In *The Corsini Encyclopedia of Psychology and Behavioral Science* (3rd ed.). New York : Wiley. https://cdn.livechat-files.com/api/file/lc/att/6129871/20059c5702f8e45eee04fb3b7e439bbf/CraigheadWEdwar_2001_PYGMALIONEFFECT_TheCorsiniEncyclopedi.pdf

Rosenthal, R., & Jacobson, L. (1968). Pygmalion in the classroom. *The Urban Review*, *3*(1), 16–20. https://doi.org/10.1007/BF02322211

Schaeffer, K. (2021). America's public school teachers are far less racially and ethnically diverse than their students. Pew Research.

Shi, Y., & Zhu, M. (2022). Equal time for equal crime? Racial bias in school discipline. *Economics of Education Review*, *88*, 102256. https://doi.org/10.1016/j.econedurev.2022.102256

Simms, K. (2012). Is the Black-White achievement gap a public sector Effect? An Examination of Student Achievement in the Third Grade. *Journal of At-Risk Issues*, *17*, 23-29.

Tate IV, W. F. (1997). Critical race theory and education: History, theory, and implications. *Review of Research in Education*, *22*, 195. https://doi.org/10.2307/1167376

The Department of Education, Office of Planning, Evaluation and Policy Development, & Policy and Program Studies Service. (2016). *Thestate of racial diversity in the educator workforce* . https://www2.ed.gov/rschstat/eval/highered/racial-diversity/state-racial-diversity-workforce.pdf

United States Census Bureau. (1997). *About Race*. https://www.census.gov/topics/population/race/about.html

U.S. Department of Education Office for Civil Rights. (2016). 2013–2014 civil rights data collection: A first look. Washington, DC: U.S. Government Printing Office.

U.S. Department of Education Office for Civil Rights. (2019). Data highlights on school climate and safety (https://ocrdata.ed.gov/assets/downloads/school-climate-and-safety.pdf). https://ocrdata.ed.gov/assets/downloads/school-climate-and-safety.pdf

Villegas, A. M., & Irvine, J. J. (2010). Diversifying the teaching force: An examination of major arguments. *The Urban Review*, *42*(3), 175–192. https://doi.org/10.1007/s11256-010-0150-1

Villegas, A. M., & Lucas, T. F. (2004). Diversifying the teacher workforce: A retrospective and prospective analysis. *Yearbook of the National Society for the Study of Education*, *103*(1), 70–104.

Voelkl, K. E. (1997). Identification with school. *American Journal of Education*, *105*(3), 294–318. https://doi.org/10.1086/444158

Wang, H. L. (2018). *No Middle Eastern Or North African Category On 2020 Census, Bureau Says*. https://www.npr.org/2018/01/29/581541111/no-middle-eastern-or-north-african-category-on-2020-census-bureau-says