STILL UNDERREPRESENTED: MINORITIZED STUDENTS WITH GIFTS AND TALENTS
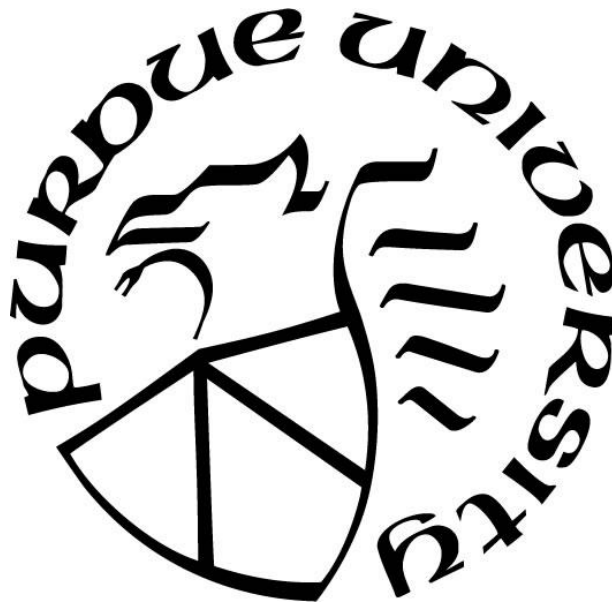
by

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This labor is dedicated to my husband Ernest; our daughters Alycia, Sarena, Rebekah, and Justyna; my immediate family Carol, Charlie, Marilyn, George, Chandra, Edie, Minnie, Yvonne, Haley, Jay, Hazel, Isaac, Tommy, Memphis, Marianne, Kolton, Zayden, Tasia, Edwin, Anna and Wendy; and all of my extended family by blood and by relation. None of this would have been possible without God, AA, and all my relations.

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ABSTRACT

To what extent do Black/African American (Black), Hispanic/Latinx (Latinx), and Native Hawaiian/Other Pacific Islander (NHPI) students have access to being identified with gifts and talents? In places where they have access to identification, how equitably are they identified? And, to what extent are they missing from identification with gifts and talents due to lack of access or underidentification? This study used the Civil Rights Data Collection for the years 2000, 2011–2012, 2013–2014, and 2015–2016 to investigate underrepresentation of Black, Latinx, and NHPI youth with gifts and talents, nationally and by state. The data in these years were census data, meaning data from every child who attends public school is included. Data were also examined by Title I and Non-Title I school status and by locale (i.e., City, Suburb, Town, Rural) to determine how school poverty concentration and/or school locale affect identification of Black, Latinx, and NHPI youth. All states were analyzed for Black and Latinx youth, but due to the small NHPI student populations in some states this analysis was limited to a 20 state sample. Nationally, and in 37, 31, and all 20 states analyzed, respectively, lack of access to identification was not a major contributing factor to underrepresentation. The disparity in identification percentages between schools by Title I status showed 45% fewer Black students, 21% fewer Latinx students, and 15% fewer NHPI students were identified in Title I schools. Additionally, in every state and setting, Black, Latinx, and NHPI youth were underidentified with 92%, 92%, and 67%, respectively, of the equity ratios and 92%, 93%, and 61%, respectively, of the representation indices less than the minimum criterion of 0.80. In 2015-2016, there were 276,840 Black students with gifts and talents identified with an estimated 469,213 (62.89%) to 771,728 (73.60%) missing from identification; 588,891 Latinx students with gifts and talents identified with an estimated 658,544 (52.79%) to 1,164,363 (66.41%) missing from gifted identification; and among the 20 state sample, 6,594 NHPI students with gifts and talents identified with an estimated 7,236 (52.32%) to 9,253 (58.39%) missing from gifted identification.

CHAPTER 1. INTRODUCTION

Minoritized Students

The chronic underrepresentation of students with gifts and talents from groups identified as culturally and/or linguistically diverse, as minoritized or racialized students, and students from low-income families or disadvantaged in gifted education is a well-documented phenomenon (Baldwin, 1987; Ford, 1998; Ford & Grantham, 2003; Ford et al., 1996; Frasier, 1980; Gentry et al., 2014, Gentry et al., 2019; Grantham, 2013; Jenkins, 1936; Montgomery, 2001; Peters et al., 2019; Renzulli & Brandon. 2017; Torrance, 1977; Yoon & Gentry, 2009). Yet, after decades of research and the development and implementation of numerous programmatic or curricular interventions, underrepresentation of American Indian or Alaska Native (AIAN), Black or African American (Black), Hispanic or Latino (Latinx), Native Hawaiian or other Pacific Islander (NHPI) students, and students from low-income families persists. The terms minoritized and racialized (Bishop, 2013; Cummins, 2017; Flores & Rosa, 2015) are used to refer to students from historically underserved populations as these terms "signal that societal power relations are operating to devalue the status of individuals or groups of people" (Cummins, p. 422).

In 1936, Jenkins wrote "Given opportunity for development, however, the gifted Negro child will emerge" (p. 189). Frasier (1993) echoed this identifying access as one of four enduring barriers to the identification of minoritized children with gifts and talents. She identified attitudes, assessments, and accommodations as the other three barriers. More recently, researchers have quantified the disparities in access and equity in identification experienced by minoritized students with gifts and talents using national and state data collected by the Office for Civil Rights (OCR). (Ford, 2014; Gentry et al., 2019; Gray & Gentry, in review; Peters et al., 2019; Yoon & Gentry, 2009).

Gentry et al. (2019) published a study analyzing the access, equity, and missingness of students with gifts and talents in the nation and each state by school general enrollment and gifted enrollment, Title I status, school locale (City, Suburb, Town, Rural) and race using OCR data. The variable race is a social construction based on prevailing perceptions of difference with no grounding in scientific evidence (Zack, 2016). There is no taxonomy of the human race, but as a social construct the racialization of children has led to the devaluing of groups of students.

Gray and Gentry (in review) analyzed the OCR data as they pertained to access, equity, and missingness of AIAN students. For this dissertation I have explored the OCR data as they relate to the access, equity, and missingness of Black, Latinx and Native Hawaiian or other Pacific Islander (NHPI) students with gifts and talents, across the nation and among the states, looking at each of these racial groups of students individually. Although each of these student groups have experienced minoritization, racialization, and underrepresentation in gifted education in schools, they each have unique narratives of their relationship to the United States education system. Therefore, the student groups have been divided into three separate studies.

In these studies the term Black is used to refer to students/children/youth who were identified in the OCR data as belonging to the race, "Black or African American." Latinx is used to refer to students/children/youth identified as belonging to the ethnicity, "Hispanic or Latino." The abbreviation NHPI is used to refer to students/children/youth identified as belonging to the race "Native Hawaiian or Other Pacific Islander" (National Center of Education Statistics, 2002).

Title I Status

Title I is part of the Elementary and Secondary Education Act and provides federal funding to public schools with large populations of students from low-income families (U.S. Department of Education, 2015). Schools qualify for Title I federal funds when 40% or more of their students are eligible for federal meal subsidies. The purpose of the funds is to raise the achievement of all students, with a focus on low-achieving students or students at risk of being low-achieving (U.S. Department of Education, 2015). Title I funds can be used for additional instruction in core subjects, for special pre-school programs, or afterschool programs (National Center for Education Statistics, n.d.).

Although many researchers have outlined the struggles of academic success for children from low-income families, Vanderharr et al. (2006) showed the effects of high concentrations of poverty within a school are a stronger predictor of student academic failure than individual family poverty. High levels of poverty in a school community often leads to teacher turnover with less experienced and less effective teachers being hired (Simon & Johnson, 2015). Lack of resources and teacher staffing issues negatively affect student achievement (Clotfelter et al., 2006; Myers et al., 2004). Battistich et al. (1995) found student academic attitudes and motivation were negatively associated with school poverty. Additionally, Kettler et al. (2015)

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found a negative relationship between the amount of money spent by a school for gifted education and the percent of students from low-income families across 1,029 Texas school districts. The greater the percent of students from poverty, the less money spent by the school on gifted education, despite Texas mandating and funding gifted education (Kettler et al., 2015).

School Locale

To investigate whether the location of a school affects access to identification for minoritized students with gifts and talents school locale codes from the Common Core of Data (National Center for Education Statistics, 2018) were used. Locale is a combination of a school's proximity to an urban area and population size. The main Locales are City, Suburb, Town, and Rural. City and Suburb have subcategories of large, midsize, and small, and Town and Rural have subcategories of fringe, distant, and remote. Subcategory data were summed into their respective locales because the division of the populations by subcategory would yield many unstable ratios.

Kettler et al. (2015) found differences in the number of staff and amount of funding allocated to gifted programs by locale. Rural schools spent less per pupil, designated a smaller proportion of their expenses, and provided a smaller proportion of staff for gifted education than did schools in the other three locales. Town schools allocated fewer staff for gifted education compared to Suburb and City schools. No effects for locale were found between City, Suburb and Town schools in budget expenses and per pupil funding for gifted education. City and Suburb schools allocated comparable numbers of staff for gifted education, but more than those in Town and Rural schools. Curiously, rural schools, in comparison to the other locales, spent slightly more on general-education per-pupil expenses.

Article 1: Black Youth Identified as Gifted: Access, Representation and Missingness in the United States.

Not all students have had equal opportunity to excel or to share in the possible benefits of having their gifts and talents identified; leading to the question: To what extent are Black/African American (Black) students proportionally identified, and to what extent are they missing from identification of their gifts and talents due to lack of access or underidentification?

With the passing of the *Fourteenth Amendment* in 1868 Black people born in the United States became citizens (U.S. Const. amend. XIV) and all states had to provide public education for Black children as a right of their citizenship. But the conceptual dichotomy of the superiority of White intelligence and the inferiority of Black intelligence already had long before developed into a social conception that supported policies that widened racial disparities and policies of racial segregation in the United States. In the south, public education followed the policies of all public facilities; children attended schools/classrooms segregated by race. The facilities provided for Black children were often substandard and supplied with textbooks and materials discarded by schools/classrooms for White children.

The practice of public segregation was challenged in *Plessy v. Ferguson* (1896) and the Supreme Court ruled that the equal protection clause of the *Fourteenth Amendment* was not violated by the practice of "separate but equal" public facilities. Though public facilities for Black citizens were decidedly un-equal, little changed in light of this decision. The ruling was successfully challenged by *Brown v. Board of Education* (1954) when the Supreme Court pronounced segregation in public education to be inherently unequal and therefore unconstitutional. In *Brown v. Board of Education* (1955) the desegregation of all public schools was ordered with "all deliberate speed" (p. 301). However, the language of this order was vague and states/districts/schools were able to draw out the desegregation process.

In 1974 the Supreme Court ruled that school districts did not have to be re-drawn to meet desegregation orders in *Milliken v. Bradley*. This meant that school populations remained segregated as district boundary lines had been drawn around segregated neighborhoods the were a result of discriminatory housing practices (Pettigrew, 2008). Segregation due to discriminatory practices continues to affect school populations as McFarland et al. (2017) reported finding in 2014 that 44% of Black students attended schools in which 50% or more of the student enrollment was Black. In the wake of the embarrassment of Sputnik – when the Soviet Union was the first country to successfully launch a satellite into Earth's orbit – there was a surge of interest in students with gifts and talents. This resulted in an increase in the availability of funding for and the offering of advanced academic programs (Colangelo & Davis, 2003). Black children had greater access in terms of proximity to these programs due to desegregation, but they were rarely a part of the programs. In 1988 Congress made grants available through the Jacob K. Javits Gifted and Talented Students Education Act, prioritizing the areas of research,

programming, and underrepresented populations of students with gifts and talents (Jacob K. Javits Gifted and Talented Students Education Program, n.d.). Yet, the underrepresentation of Black children with gifts and talents remained chronic. Frasier (1993) described four barriers to identifying minoritized youth: access, negative attitudes towards the students, assessments used for qualification, and focusing on curricular accommodations rather than curriculum adaptations. In 2002 Morris associated the underrepresentation of African American students in gifted education with the continued perception of African Americans as intellectually inferior to Whites. Ford (2014) found social inequalities and policies guided by deficit thinking had resulted in the underrepresentation of Black and Latinx children. Deficit thinking frames the culturally different student as a victim of their cultural difference. Their differences are seen as deficiencies, and these differences/deficiencies are the source of their academic failures and problems with school (Ford, 2014).

The students included in this study were from the federal racial category of Black or African American. Students in this category are defined as having "origins in any of the black racial groups of Africa" (National Center for Education Statistics Statistical Standards 2012, p. 2). For our study we chose the term Black to refer to these students in order to trouble what Ghee (1990) referred to as the *conceptual dichotomy* as, even without direct intergroup comparisons, the results show evidence of a Black – White dichotomy in the structure of gifted education.

Population

This study included all states as the proportions of Black students and population numbers were large enough to yield stable ratios and RIs when subcategorized by Title I status and Locale.

Article 2: Latinx Students Identified with Gifts and Talents: Access, Representation and Missingness in the United States.

Students who are categorized as Hispanic or Latino (Latinx) come from a variety of nationalities and ethnicities and immigrated to the U.S. at different times of various circumstances. The federal racial category of *Hispanic or Latino* is defined as a person "of Cuban, Mexican, Puerto Rican, Cuban, South or Central American, or other Spanish culture or origin, regardless of race" (National Center for Education Statistics Statistical Standards, 2012,

p. 7). Few of these students have had equal opportunity to participate in the possible benefits of having their gifts and talents identified; begging the question: To what extent are Hispanic or Latino (Latinx) students proportionally identified, and to what extent are they missing from identification of their gifts and talents due to lack of access or underidentification?

When the U.S. border shifted further south and new territories were gained after the Mexican-American War (1846-1848) the number of Mexican Americans grew rapidly. This was due to people who remained on their property while the political border was redrawn, and immigration from Mexico increased (Garcia & Sung, 2018). Mexican American children, and later Hispanic/Latino children, were segregated into schools with substandard facilities and inferior materials and instruction, compared to those of White children. The segregation of African American children in the south, the segregation of Mexican American children in the Southwest is less well known. Donato (1997) believed the segregation of Mexican American children to be due to the perceived deficiencies of their culture and their language, and the segregation of African American children to be due to the perceived deficiencies of their race.

Puerto Ricans were given U.S. citizenship in 1917 following the Spanish-American War and the annexation of Puerto Rico. The migration of Puerto Ricans to the continental U.S. increased after World War II. Parents from the large Puerto Rican community in New York City advocated for their children to receive bilingual education (Garcia & Sung, 2018). Large communities of Cuban Americans developed as people immigrated to escape the Castro regime from 1961 to 1996. (Caravantes, 2006). These communities also advocated for their children to be educated in both English and Spanish. For some families and community groups, advocacy included litigation for bilingual education.

In 1968 the Bilingual Education Act (BEA) was added as an amendment to the Elementary and Secondary Education Act providing federal funding to schools/districts with large numbers of limited English-speaking students, especially when there was a high concentration of poverty among those students. Latinx families were hopeful the BEA would lead to schools supporting the development of their children as bilingual and bicultural and developing pride in both their American and Latinx identities (Garcia & Sung, 2018). Policymakers believed "that bilingual education would solve urban Latino poverty" (Sung, 2017, p. 315).But the language of the act began shifting away from bilingual education as a goal to bilingual education as transitional to English only instruction in the 1974 reauthorization of the

BEA (Garcia & Sung, 2018; MacDonald, 2004). In 2001 Title III replaced the BEA and bilingual education entirely was replaced with English language acquisition (Garcia & Sung, 2018).

The perception of Latinx students as deficient because of their culture and their language has played a role in the historic underrepresentation of these students in gifted education. Teachers who focus on student weaknesses at the expense of student strengths, policies guided by social inequalities and deficit beliefs have contributed to the underrepresentation of Latinx youth with gifts and talents (Ford, 2014; Frasier, 1993; Valencia, 2010).)

Population

This study included all states as the proportions of Latinx students and population numbers were large enough to yield stable ratios and RIs when subcategorized by Title I status and Locale.

Article 3: Native Hawaiian and Other Pacific Islander Students Identified with Gifts and Talents: Access, Representation and Missingness in the United States.

The federal racial category for students included in this study is *Native Hawaiian or Other Pacific Islander* (NHPI). Students categorized into this group are defined as having "origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands." (National Center for Education Statistics Statistical Standards, 2012, p.11). The brief history on the development of public education focuses on the Kingdom of Hawaii and Native Hawaiians as the peoples categorized as *other Pacific Islanders* each have their own histories with public education and the *civilizing* process.

Missionaries from America were the first to establish schools for Native Hawaiians in the 1820s for the purpose of *civilizing* and Christianizing the people. Literacy was a requirement to join the church and to speed the learning process, instruction was in the Hawaiian language (Benham & Heck, 1998; Beyer, 2017; Beyer, 2014). Many of the schools were boarding schools where Native Hawaiian children were isolated from their traditional lifestyles and beliefs, inculcated in the ways of Christianity, and instructed in basic academics (Beyer, 2017). Many Native Hawaiians from the higher social classes welcomed this formal style of education, and in 1841 King Kamehameha III created Hawaii's public education system (Hawaii State Department of Education, n.d.). The Hawaiian education system instructed all students in basic academics,

boys were trained in manual labor skills and girls in domestic skills, and similar to American Indian industrial boarding schools (Beyer, 2017; Beyer, 2014).

As part of the *civilizing* process, private land ownership was introduced. This largely profited White people from the U.S. who purchased large amounts of land and exploited the agricultural resources of the islands establishing sugar cane and pineapple plantations (Rosa, 2018). As the labor needs of plantations expanded, Hawaiian schools adjusted their curriculum to the skills needed for Native Hawaiian children to serve as labor for White plantation owners (Beyer, 2017; Beyer, 2014). The economy of the Hawaiian Kingdom was growing, but it was largely in the hands of White U.S. businesspeople (Benham & Heck, 1998) who used their political influence to shift public education instruction away from the Hawaiian language to English (Beyer, 2017). In 1893, when the Kingdom of Hawaii was illegally overthrown by U.S. citizens (Benham & Heck, 1998), one of the first orders of the new government was outlawing the use of the Hawaiian language for public transactions, including the use of the Hawaiian language for instruction in public schools (Beyer, 2017).

Sample

This study focuses on the states with larger proportions and population numbers of NHPI students in order to yield stable ratios and RIs when subcategorized by Title I status and Locale. Twenty states met the criterion and included 89% of the NHPI student population (AK, AR, AZ, CA, CO, FL, GA, HI, IL, MO, NC, NJ, NV, NY, OK, OR, TX, UT, VA, & WA).

Methods

These descriptive studies were undertaken to establish the extent to which Black, Latinx, and NHPI students with gifts and talents had access to being identified as gifted, were identified proportionally with gifts and talents, and were missing from gifted education due to underidentification and lack of access to identification. The data were examined at the national and state levels, by school Title I status, and school Locale (i.e., City, Suburb, Town, Rural). These analyses were done with the goal to uncover patterns of underrepresentation for further study. The themes and research questions that guided this inquiry are:

1. (access) To what extent do Black, Latinx, and NHPI youth have access to being identified with gifts and talents in the United States and within the states?

2. (equity) To what extent are Black, Latinx, and NHPI youth identified proportionally with gifts and talents? Further, how does school locale and Title I status affect proportional identification of Black, Latinx, and NHPI youth with gifts and talents?

3. (missingness) To what extent are Black, Latinx, and NHPI youth missing from identification as gifted and talented?

4. (next steps) What patterns exist in these data that warrant future research concerning access, identification, and (in)equity?

Data Sources

The Office for Civil Rights has been collecting data biennially from public schools and local education agencies (LEA) since 1968 through the Civil Rights Data Collection (CRDC). Variables related to students, schools, districts, educational programs and services are collected to assist them in enforcing and administering civil rights statutes. The CRDC is the only data set which includes student gifted identification information. This data collection had been sample data from schools/districts until 2000 when the data was collected from all public schools/districts in the U.S. This population data collection was repeated in 2011-2012, 2013-2014, and 2015-2016 and has now been established as a biennial requirement of schools/districts. These four population data sets have allowed for a complete analysis of the minoritized youth who were underrepresented in years when the data was only sampled (Yoon & Gentry, 2009). The 2000 CRDC data is not used in all the analyses, or is used as a baseline, as the racial/ethnic categories are not the same as the other years.

School locale codes came from the Common Core of Data (CCD) public files matching the years 2011-2012, 2013-2014, and 2015-2016. The OCR provided a cross-walk, which matched the CRDC unique school identifier code with the NCES unique school identifier code. By matching school data sets we added locale codes to the CRDC data and categorized schools, and the students who attend them, by the four main categories of City, Suburb, Town, and Rural. A cross-walk was not available for 2000 so locale is not included as a variable in this data set.

During Gentry et al.'s (2019) analyses of these data, an inconsistency in the reporting of school Title I status for the state of Wisconsin in 2015-2016 was discovered. A list of districts,

schools, and school Title I status from that school year was hand matched to the OCR school listing and replaced the OCR Title I status information for this state. Six schools from the Wisconsin Department of Public Instruction listing could not be matched to schools on the OCR school list, and twenty-eight schools on the OCR list did not have a match from the Wisconsin list. The twenty-eight OCR schools were identified as not having a Title I status reported, and the six schools from the Wisconsin list were not included in the data set.

Data Analyses

For the four reporting years, each school's enrollment and gifted education program enrollment data was aggregated school wide and for the racial/ethnic categories. The schools were then separated according to their Title I status and whether they identify students with gifts and talents. This created four categories of schools: Title I with Gifted Identification, Title I without Gifted Identification, Non-Title I with Gifted Identification, Non-Title I without Gifted Identification. These variables were reported nationally and by state in each of the four categories.

Additionally, locale codes were used to examine access, and identification (ID) of Black, Latinx and NHPI students with gifts and talents in City, Suburb, Town and Rural locales. This resulted in 24 categories through the combination of Title I status (Non-Title I, Title I, Status not reported), Gifted Identification (ID GT, No ID GT), and Locale (City, Suburb, Town, Rural, Locale not reported). Nationally, less than 5% of schools did not have a Title I status reported, these schools and students were not included in analyses of Title I status. Additionally, nearly 2% of schools did not have a locale code identified, these schools and students were not included in analyses of locale. Data on access to identification and equity in identification only includes schools with gifted identification. Children who attend schools that did not identify students with gifts and talents had no access to, or opportunity for, identification and were not included in discussions of equity.

Representation Indices (RIs) were calculated to examine the equity in representation of Black, Latinx and NHPI students who were identified with gifts and talents in relation to the student enrollment of their group (Peters et al., 2019; Yoon & Gentry, 2009). Specifically, to compute an RI the percent of students identified as gifted from a given student population is divided by the percent of these same students in the general student population. For example, if

Black students comprised 10% of the GT enrollment and 20% of the student enrollment, the RI would be 0.50. $(10/20 = 0.50)$. Kitano and DiJiosia (2001) identified students with an RI of 1.00 to have perfect proportional representation, those with an RI greater than 1.00 to be overrepresented, and those with an RI of less than 1.00 as underrepresented. We agree with their assessment representation of students with RIs of 1.00 and less than 1.00 to be proportionally represented and underrepresented, respectively. But in our analyses we consider students with an RI greater than 1.00 to be *well-represented*.

Finally, the *missingness* of Black, Latinx and NHPI youth with gifts and talents was calculated nationally and by state. This calculation was a multi-step process with lower and upper boundaries to the missingness estimates. To calculate the lower boundary of missing youth from a racialized group we multiplied the number of students from that group who attended schools that did not identify by the state average identification rate. To this figure, we added those underidentified in the racialized group. This was calculated by multiplying the number of students from the racialized group who attended schools that identified by the state average identification rate and subtracting the number of students from the racialized group identified as gifted in the state. This sum is the lower boundary estimate. This process was repeated for each racialized group, each state, and the nation using each state's average identification rate.

Because Non-Title I schools were found by Gentry et al. (2019) to identify a larger percentage of students as gifted than did their Title I school counterparts, all students who attended Title I schools were considered underidentified when compared to students who attended more affluent schools. Therefore, the upper boundary of missingness was calculated by multiplying the students from a racialized group who attended schools that did not identify by the state Non-Title I identification rate. To this was added students from the racialized group that were underidentified. This was calculated by multiplying the number of students from the racialized group who attend schools that identified by the state Non-Title I identification rate and subtracting the number of students from the racialized group identified as gifted in the state. This sum is the upper boundary estimate. This process was repeated for each racialized group, each state, and the nation using each state's Non-Title I identification rate.

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CHAPTER 2. BLACK YOUTH IDENTIFIED AS GIFTED: ACCESS, REPRESENTATION, AND MISSINGNESS IN THE UNITED STATES

Abstract

To what extent do Black/African American students have access to being identified with gifts and talents? In places where they have access to identification, how equitably are they identified? And, to what extent are they missing from identification with gifts and talents due to lack of access or underidentification? This study used the Civil Rights Data Collection for the years 2000, 2011–2012, 2013–2014, and 2015–2016 to investigate underrepresentation of Black youth with gifts and talents, nationally and by state. The data in these years were census data, meaning data from every child who attends public school is included. Data were also examined by Title I and Non-Title I school status and by locale (i.e., City, Suburb, Town, Rural) to determine how school poverty concentration and/or school locale affect identification of Black youth. Nationally, and in 37 states, lack of access to identification was not a major contributing factor to underrepresentation. The disparity in identification percentages between schools by Title I status showed 45% fewer Black students were identified in Title I schools. Additionally, in every state and setting, Black youth are underidentified with 92% of their representation indices less than 0.80 and ranging from 0 in Montana to 0.79 in Utah. In total 276,840 Black students with gifts and talents were identified in 2015–2016 and an estimated 469,213 (62.89%) to 771,728 (73.60%) Black youth were missing from gifted identification that year.

Keywords: Black, African American, gifted, talented, identification, access, Title I, equity, City, Suburb, Town, Rural

Background

Nationally, students who are identified with gifts and talents have access to, and take part in, advanced academics; they graduate and go on to post-secondary education to later earn higher salaries, and have overall healthier lives. However, the truth is not all students have equal opportunity to excel or share in the possible benefits of identification of their gifts and talents. Our broad question then is: To what extent are Black/African American (Black) students proportionally identified, and to what extent are they missing from identification of their gifts and talents due to lack of access or underidentification?

We recognize and acknowledge at the outset that Race is a social construction; a concept created from prevailing social perceptions without scientific evidence (Zack, 2016). Evolutionary biology as well as other sciences have shown that human race taxonomy has no scientific basis. Throughout this paper, the term *Black* will be used to refer to students and youth whose data has been categorized into the federal racial group of Black or African American and have been defined as a person who has "origins in any of the black racial groups of Africa" (National Center for Education Statistics Statistical Standards 2012, p. 2). Although this paper does not undertake an intergroup comparison, the term Black is used to underscore the *conceptual dichotomy* (Ghee, 1990) it invokes, and to highlight data results that are evidence of a troubling Black–White dichotomy in the gifted education structure[1].

Black Intelligence, Racial Segregation, and Public Education

The idea of the inferiority of Black intelligence, a conceptual dichotomy to the superiority of White intelligence, has had many iterations. In the early 19th century, craniometry was popular among American anthropologists who related differences in skull measurements to racialized phenotypic groups. This led to skulls with smaller measurements being assigned to populations with dark skin and equating these skulls with lower intelligence (Painter, 2010). The conceptual dichotomy of Black–White was clearly in practice when skulls with larger measurements were assigned to light-skinned populations and equated with higher intelligence. Darwin's theories of natural selection and heredity were dogmatized, and used to justify policies

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[1] For data on multiple racial groupings, see Gentry et al., 2019.

that subjugated Black people, widened racial disparities, and then used as proof of their inferiority (Kendi, 2016). In the 20th century, standardized intelligence tests, which regularly resulted in significant gaps between Black and White peer IQ scores (Hernstein & Murray, 1996) became the evidence of a "genetic intellectual racial hierarchy' (Kendi, p. 312) and the justification of racist policies. These tests were not appropriately developed for use with Black populations, to which they are routinely applied, yet to this day they are used as indicators of lower Black intelligence and to make high stakes decisions about these youth (Ford et al., 2008; Gentry et al., under review).

The history of public education for Black children is intertwined with the litigious history of civil rights in the United States. "A close look at the conjunction of the *Fourteenth Amendment's* ratification and Southern states' readmission to the Union reveals that education is included within the right of citizenship" (Black, 2018, p. 766). The Fourteenth Amendment (adopted in 1868) granted citizenship to Black people born in the U.S. (U.S. Const. amend. XIV. §1), and state constitutions granted access to public education as a right of citizenship, which meant that states had to provide Black children with public education. Public education was provided by most states, but Black children were segregated from their White peers and attended schools and classes with facilities that were most often underderfunded, substandard, and supplied with used textbooks that had been discarded by White students.

In 1896, the Supreme Court upheld public segregation of Black citizens in *Plessy v. Ferguson*, ruling "separate but equal" public facilities, including schools, was not in opposition to the equal protection clause of the Fourteenth Amendment. Eventually, segregation in education was ruled unconstitutional in the case of *Brown v. Board of Education*, in 1954, and the Supreme Court ordered the desegregation of all public schools. The second *Brown v. Board of Education* (1955) ruling stated that school desegregation must happen with "all deliberate speed" (p. 301). This vague terminology allowed states and school districts to drag out the implementation of desegregation. Then, in 1974, the Supreme Court's ruling in *Milliken v. Bradley* virtually reinstated school segregation in some locations by stating that school district boundary lines did not have to be redrawn for purposes of school desegregation; unless any resulting segregation within schools was the direct result of discriminatory practices by the school district. This ruling opened the door for segregation in schools, as districts were drawn along neighborhood boundary lines, which were themselves segregated due to discriminatory

housing practices (Pettigrew, 2008). By 2014, 44% of Black students still attended schools in which 50% or more of the student population was Black (McFarland et al., 2017).

A surge of interest in students with gifts and talents emerged post-Sputnik—when the Soviet Union beat the U.S. to be the first country to successfully place a satellite in Earth's orbit—resulting in increased funding and availability of advanced academic programing (Colangelo & Davis, 2003). School desegregation placed Black children in greater proximity to those programs, but the entrenched conceptual dichotomy that Black children had less intelligence than White children remained. Even with prioritized grants funding "identifying students missed by traditional assessment methods" (Jacob K. Javits Gifted and Talented Students Education Program, n.d.), Black children with gifts and talents remained underrepresented in these programs (Gentry et al., 2019; Yoon & Gentry, 2009). Frasier (1993) found underrepresentation to result from barriers to identification; Morris (2002) attributed underrepresentation to the historical and continuing perception of Blacks as having inferior intellectual capacity to Whites; and Ford (2014) suggested underrepresentation was due to social inequalities and policies guided by deficit thinking with regard to Black and Latinx children. Recently Grissom and Redding (2016) found that White teachers were less likely to refer Black students for gifted identification than were Black teachers, and with more than 80% of the teaching work force being White, this is another barrier to Black children in gifted programs.

Title I Schools and Student Achievement

As part of the Elementary and Secondary Education Act that was amended by the Every Student Succeeds Act (U.S. Department of Education, 2015), Title I provides federal funds to public schools with 40% or more of their students eligible for federal meal subsidies. Title I funds must be used to raise the achievement of low-performing students, but this can be done through a schoolwide program with the goal of raising all student achievement (U.S. Department of Education, 2015). Among the types of programs that can be funded by Title I are special preschool programs, afterschool programs, and additional mathematics and/or reading instruction (National Center for Education Statistics, n.d.).

There is a growing body of evidence that concentration of poverty within a school is as strong of a predictor of academic failure as individual student poverty (Vanderhaar et al.2006).

Vanderhaar et al. (2006) found student achievement was negatively affected by poverty levels[2] greater than 40%. Schools with high concentrations of poverty have high teacher turnover and often hire less effective and less experienced teachers (Simon & Johnson, 2015). Teacher staffing issues with the lack of access to resources, when compared to schools with low poverty concentrations, negatively affect student achievement (Clotfelter et al., 2006; Myers et al., 2004). Additionally, student academic attitudes and motivation is negatively associated with school poverty concentration (Battistich et al., 1995). In 2015, Kettler et al. examined access to gifted education in 1,029 Texas school districts. They found that despite a state mandate and funding provided for gifted education, a negative relationship existed between the percent of students from low-income families and the amount of money a school spent on gifted education (Kettler et al., 2015). Despite it being counterintuitive, less funding is provided for gifted education in schools with a greater percentage of students from low-income families. Gentry et al. (2019) found nationally 77% of Black students attend Title I schools compared to 67% of all students and only 60% of White students, in 2015-2016. Additionally, the national Representation Index (RI) of Black students identified in Title I schools was 0.51; whereas, the RI for White students in Title I schools was 1.25, that same year.

In 2010 Plucker et al. identified performance gaps among the highest achievers and termed them *excellence gaps*. Additional excellence gap analyses were done by Plucker et al. in 2013. In both studies they found excellence gaps between Black and White students with Black students performing up to 34 points lower than White students and excellence gaps for students eligible for federal meal subsidies performing up to 26 points lower than those not eligible. Generally, these gaps were found to persist across subjects and over time. Ladson-Billings (2006) challenged the notion that analyses of achievement gaps can provide explanations beyond the short-range. Using the national economy as a metaphor she likened the national deficit to achievement gaps, and by extension excellence gaps; an annual debt to Black and minoritized students from the gap in the achievement. She then equated the national debt with an *education debt*; the decades of compounded debt to Black and minoritized students resulting from moral decisions and historic, sociopolitical, and economic policies from which, achievement gaps and excellence gaps are a logical consequence.

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[2] Measured as eligibility for free and reduced-price meal programs

School Locales

To investigate the effect of school location on the identification of Black youth with gifts and talents, the National Center for Education Statistic's Common Core of Data (CCD; 2018) was used. CCD collects locale information, which is a combination of a school's location relative to an urban area and the surrounding population size, on all public schools annually. The four main locale categories of City, Suburb, Town, and Rural were used in this study. In their analyses, Kettler et al. (2015) identified City and Suburb school districts allocated larger proportions of their faculty, larger proportions of their general budgets, and spent more per pupil for gifted education than Town or Rural districts. Gentry et al. (2019) found Black students had access to gifted identification, by attending schools that identify, at 97% the rate of all public school students. This may be due in part to more than 80% of Black students being educated in City and Suburb schools where there is greater staffing and funding.

Methods

This descriptive study, using population data, was undertaken to establish the extent to which Black students had access to being identified as gifted, were identified proportionally with gifts and talents, and were missing from gifted education due to underidentification and lack of access to identification. The data were examined at the national and state levels to investigate identification of Black students with gifts and talents by school Title I status and school Locale (i.e., City, Suburb, Town, Rural). These analyses were done with a goal to uncover patterns of underrepresentation for further study. The themes and research questions that guided this inquiry are:

1. (access) To what extent do Black youth have access to being identified in the United States and within the states?
2. (equity) How proportionally are Black youth identified with gifts and talents in schools that identify youth nationally and among the states?
3. (missingness) To what extent are Black youth missing from identification as gifted and talented?
4. (trends) Does access, equity, and missingness differ among the states, based on Title I school status, and based on school locale?

5. (next steps) In these data, what patterns exist that warrant future research concerning access, identification equity, and missingness?

Data Sources

Data from the Office of Civil Rights (OCR), Civil Rights Data Collection (CRDC) restricted use data files for the years 2000, 2011–2012, 2013–2014, and 2015–2016 were used for these analyses. These years were selected because they contain population data from every public school in the country, enabling a complete look at Black youth identified as gifted and talented across the country. The Office of Civil Rights is the only source of national data concerning racial groups and gifted identification. School locale codes are not available in the CRDC, but a cross-walk was provided by the OCR to pair with the Common Core of Data (CCD) public files of matching years, and includes school locale codes. Locale codes have four main categories (City, Suburb, Town, and Rural) each with three subcategories. For this study, we used the main categories and have primarily focused on the 2015–2016 data as little has changed across the four waves of data.

Data Analyses

Each school's general enrollment data and gifted education enrollment data were aggregated for the four reporting years, for the racial/ethnic category Black. The same data were aggregated by the variables of school Title I status and with/without identification of students with gifts and talents. This resulted in schools categorized as: (a) Title I with gifted identification, (b) Title I without gifted identification, (c) Non-Title I with gifted identification, and (d) Non-Title I without gifted identification. The results of these categories are reported by each state and the nation.

Enrollment, access, and identification (ID) of Black students with gifts and talents were also examined by locale. This resulted in 24 possible categories from the combination of school Title I status (Non-Title I, Title I, Status not reported), gifted identification (ID GT, No ID GT), and locale (City, Suburb, Town, Rural, Locale not reported). Nearly 5% of schools in the nation did not report Title I status. These schools and their students were not included in analyses that

include Title I status. Locale codes were also missing for approximately 2% of schools, and when examining data by locale, places without a code were excluded from the analyses.

Access. To examine access, individual schools were used as the unit of analysis. If no students in a school were identified with gifts and talents, then that school was designated as a school with no access. Therefore, for analyses on access to identification and equity in identification, only schools that identified students with gifts and talents were included. Students in schools without identification were included in the analysis of missingness. This is different from past reports in which authors used all schools as the baseline (e.g., Ford, 2014; Peters et al., 2019; Yoon & Gentry, 2009), and actually more accurate as aggregating data in this way enables a true proportion of students identified in schools that actually identify students.

Equity. Equity of representation of Black students identified with gifts and talents compared to Black student enrollment was examined using Representation Indices (RIs). To compute an RI, the percent of Black students among all students identified as gifted is divided by the percent of Black students enrolled in the general school population. For example, if Black students comprised 10% of the identified gifted (GT) students and 20% of the student enrollment, the RI would be 0.50 (10/20= 0.50), meaning they are underrepresented in the gifted programs by 50%.

Missingness. Inequitable representation of a group of students within the identified gifted student population is underrepresentation (Ford, 2014), missing students result from underrepresentation. *Missingness* is a term used here to refer to Black students with gifts and talents who are either underrepresented among identified students in schools that identify, or who attend schools that do not identify, meaning they have no access to identification.

The missingness of Black youth with gifts and talents was calculated by state and for the nation. This was a multistep process with lower and upper boundary estimates used to quantify missingness. To calculate missingness, at the lower boundary the average percent of students identified nationally (and then in each state) was multiplied by the number of students in schools that identify; at the upper boundary the larger percentage of students identified in Non-Title I schools that identify was multiplied by the number of students. Effectively, the upper boundary, addresses the question, "What if all schools identified at the rate of Non-Title I schools?"

The lower boundary estimate of missing Black youth in the nation was computed by multiplying the number of Black students who attend schools without identification

(*n*=2,676,697) by the national average percentage identified of 9.57% (2,676,697 x 9.57% = 256,291). To this figure, we added underidentified Black students, computed by multiplying the number of Black students who attend schools that identify (*n*=5,115,049) by the national average percentage identified of 9.57% (5,115,049 x 9.57% = 489,762) and subtracting the number of Black youth who were identified as gifted (*n*=276,840) in those schools (489,762 – 276,840 = 212,922). This sum (256,291 + 212,922= 469,213) is the lower boundary estimate of missingness for Black youth with gifts and talents in the nation.

The percentage of Black students with gifts and talents missing nationally at the lower boundary estimate was calculated by totaling the identified and missing students, then dividing the missing by the total and converting to percentage (i.e., 276,840 + 469,213= 746,053 and 276,840 /746,053 (100)= 62.89%). The process was repeated for each state, using the state's average percentage identified to calculate the lower boundary of missing Black youth and the percentage of those missing.

Gentry et al., (2019) found a larger percentage of students in Non-Title I schools were identified with gifts and talents than students in Title I schools in most states. Because of this, they determined students who attend Title I schools were underidentified when compared with students attending more affluent schools. Following this reasoning, upper boundary estimates of missingness were calculated in the same manner as were lower boundary estimates, as described above, with one exception: the upper boundary calculations and percentages were calculated using the percentage of students identified in the Non-Title I schools. For the nation this percentage was 13.46%. This process was completed for each state using the average percentage of students identified in Non Title I schools. Having a lower boundary and upper boundary, provides a range of the number of estimated Black children with gifts and talents missing from identification as gifted.

Results

For our analysis, we adapted a definition of *discrimination* and the *four-fifths rule (80%)* similar to those used by Gentry et al. (2019) and Ford (2013). The Equal Employment Opportunity Commission (EEOC) defined *discrimination* as selection practices that have *adverse impact* on people identified as members of a race/ethnicity or sex (29 C.F.R. §1607.3, 2019) in comparison to majority group members. Rates of less than 80%, or four-fifths, have *adverse*

impact on group members and, by definition, are discriminatory (29 C.F.R. §1607.4, 2019). Like Gentry et al. (2019) we use a four-fifths comparison to a standard of 100% (1.00), which would indicate proportional representation, rather than to the majority group. We did this for several reasons. First, the majority groups (i.e., White and Asian students) varied in their representation indices from 1.00 to more than 4.00 across the variety of school types and states. Second, if we used RIs from other racial groups as targets it would result in variable targets that would be difficult to interpret. For example, 80% of 2.00 is different than 80% of 4.00. Last, a fixed standard of 1.00 sets a standard for proportional, not comparative, representation for each group. We note, for members of a racial group who have selection rates less than four-fifths the standard, this is *adverse impact* defined as *discrimination* (29 C.F.R. §1607.3, 2019).

States, Title I Status, and Locales of Schools Where Black Youth are Educated

Nationally, in the 2015-2016 school year Black students comprised more than 15% of the public school student population. Table 1 shows states in order of largest to least percentage of Black students in their enrollment and provides general demographic information of the Black student population in 2015–2016. Nationally, there were 7,791,746 Black students representing 15.44% of the United States public school student population, 77.25% of these students attended Title I schools and 18.32% Non-Title I schools. The states in bold typeface mandated gifted education; only 12 states and the District of Columbia did not mandate gifted education. By locale, 45.51% of Black students attended City schools, 34.93% were in Suburb schools, followed by 11.26% in Rural schools and 7.27% in Town schools. The District of Columbia had the largest percentage of Black youth at 70.61% and Wyoming had the least with only 1.14% Black youth. Ordered in this manner, 90% of the Black student population was educated in 28 states (DC, **MS, LA, GA, MD, SC, AL, DE, NC, VA, TN, FL, AR**, MI, NY, **IL, OH**, MO, **NJ, PA, CT, TX, IN, KY, NV, MN, WI,** and **OK**). Texas had the largest number of Black students enrolled (664,766) at 12.54% of their enrollment and Wyoming had the fewest (1,081) enrolled at 1.14% of their enrollment.

Thirty-seven states (including DC) and the nation educated the largest percentage of Black students in City schools, and in 22 of these states, more than half of the Black student population attended City schools. Twelve states educated the largest percentage of Black students in Suburb schools, one state in Town (MS), and one state in Rural schools (SC).

Nearly all Black students in Wisconsin (99.82%) attended Title I schools. In fact, 41 states, educated more than 50% of Black students in Title I schools and of these, 24 states educated more than 80% of Black students in Title I schools. Only nine states educated 50% or more of their Black students in Non-Title I schools.

Table 1. *Black Student Enrollment, by School Title I Status and Locale in States and Nation for 2015–2016.*

State	N of Black Students	% of State Enrollment	National Cumulative %	Non-Title 1 %	Title 1 %	City %	Suburb %	Town %	Rural %
DC	58,142	70.61	0.75	9.54	90.42	99.90	0.00	0.00	0.06
MS	244,117	49.69	3.88	17.92	81.63	16.18	8.94	37.67	36.76
LA	318,457	44.09	7.97	5.42	93.01	43.43	22.80	15.30	17.57
GA	653,602	37.00	16.35	21.76	77.33	24.13	46.69	9.49	18.50
MD	310,665	34.76	20.34	31.60	67.88	29.53	63.09	1.42	5.73
SC	264,533	34.53	23.74	47.64	51.59	24.11	27.82	15.54	32.00
AL	249,349	33.46	26.94	25.54	73.50	40.71	19.98	11.83	26.48
DE	43,344	31.20	27.49	29.95	68.29	24.49	48.55	9.58	13.79
NC	399,613	25.75	32.62	16.28	83.59	44.19	16.67	12.22	26.81
VA	294,509	22.92	36.40	59.74	40.09	39.07	36.78	6.19	17.79
TN	225,330	22.57	39.29	7.36	91.74	67.48	12.33	8.58	11.36
FL	627,166	22.56	47.34	7.73	92.22	35.62	54.04	3.50	6.82
AR	98,304	20.29	48.60	5.33	92.15	38.90	17.41	24.22	18.08
MI	278,579	18.03	52.18	20.82	78.60	54.48	38.29	1.79	3.48
NY	480,141	17.61	58.34	8.45	39.56	74.52	19.15	2.17	1.86
IL	350,962	17.31	62.85	7.76	88.34	56.89	37.69	2.54	2.24
OH	281,833	16.05	66.46	7.58	91.46	56.95	37.22	2.37	2.76
MO	148,626	15.99	68.37	16.11	82.69	41.28	44.90	7.08	5.59
NJ	217,661	15.88	71.16	16.16	83.11	27.02	65.97	1.79	4.74
PA	255,874	14.83	74.45	8.83	89.98	57.47	36.06	1.96	3.82
CT	68,841	12.84	75.33	38.91	60.31	60.14	36.29	0.58	2.22
TX	664,766	12.54	83.86	12.92	86.69	48.52	35.42	6.34	9.57
IN	126,401	12.24	85.49	9.34	90.44	68.73	24.52	2.21	4.29
KY	72,842	10.59	86.42	9.47	90.47	36.51	39.08	15.05	9.30
NV	49,238	10.46	87.05	25.81	73.84	48.47	47.95	0.86	2.68
MN	92,069	10.45	88.23	38.84	60.44	48.51	41.26	5.67	3.69
WI	81,912	9.44	89.29	0.17	99.82	77.10	16.74	2.96	3.19
OK	61,966	8.91	90.08	9.41	90.20	54.68	21.47	11.47	12.00
MA	84,200	8.84	91.16	27.00	70.08	46.97	48.86	0.52	2.29
RI	11,889	8.40	91.31	3.84	95.57	43.28	54.92	0.00	1.32
KS	35,302	7.19	91.77	12.74	85.36	62.14	13.20	13.85	9.17
NE	21,909	6.91	92.05	55.98	43.96	78.95	11.61	4.62	4.79
CA	364,822	5.82	96.73	19.93	70.22	46.13	40.73	1.99	3.05
IA	28,517	5.69	97.10	21.60	77.93	66.98	11.01	12.88	8.65
AZ	60,154	5.31	97.87	4.90	93.20	57.05	31.33	6.11	5.35
ND	5,182	4.69	97.93	55.77	44.23	43.07	22.93	20.84	13.16

Table 1. continued

State	N of Black Students	% of State Enrollment	National Cumulative %	Non-Title 1 %	Title 1 %	City %	Suburb %	Town %	Rural %
CO	41,611	4.63	98.47	57.33	42.47	75.41	18.84	1.43	4.12
WA	48,709	4.45	99.09	31.08	68.55	53.66	39.88	3.32	2.77
WV	12,360	4.44	99.25	60.83	39.03	37.92	21.67	19.41	20.87
ME	6,063	3.41	99.33	4.83	95.17	65.03	11.61	6.83	16.53
AK	4,153	3.15	99.38	34.99	64.48	71.71	4.07	14.52	9.27
SD	3,933	2.87	99.43	36.10	63.36	69.31	0.53	14.42	15.20
VT	1,997	2.41	99.46	23.49	76.31	31.45	18.13	23.23	26.99
OR	13,544	2.36	99.63	49.56	48.57	63.94	22.64	7.31	4.29
NM	6,712	1.98	99.72	9.36	85.82	40.45	9.30	30.54	16.92
HI	3,529	1.93	99.76	61.63	38.37	22.36	68.77	4.96	3.91
NH	3,513	1.92	99.81	8.37	91.43	44.89	23.60	18.13	13.18
UT	9,205	1.38	99.93	62.12	37.87	21.80	68.21	4.80	5.17
WY	1,081	1.14	99.94	63.55	36.26	44.96	4.26	35.52	15.17
ID	3,152	1.07	99.98	25.38	73.22	42.73	23.51	20.94	11.64
MT	1,367	0.93	100.00	9.95	89.83	43.31	1.76	29.85	24.87
Nation	7,791,746	15.44	100.00	18.32	77.25	45.51	34.93	7.27	11.26

Note. States are ordered from the largest percentage of Black students in the state to the least. Percentages may not equal 100% as a few schools (<5%) in each state did not identify Title I status or Locale, and in New York, 35.86% of schools did not identify Title I status. States in bold font have mandates regarding the identification and/or service of students with gifts and talents.

Access to Identification and Identification Rates

From 2000 to 2016 the percentage of Black students dropped from 17.06% to 15.44%. Almost 66% of the Black students in 2016 attended a school that identified students with gifts and talents; whereas, about 35% of Black youth attended schools that did not identify students; thus, they had no access to identification. Nationally, according to Gentry et al, (2019), 67% of all students attended schools that identified gifted youth, so unequal access is not the reason for underrepresentation of Black youth. For students who attended schools that identified youth with gifts and talents, on average 5.41% of Black students were identified; but upon closer examination Black students who attend Title I schools were identified at only 0.55 the rate of those who attended Non-Title I schools (4.60% and 8.38%, respectively). This ratio has worsened over time, and is of concern as most Black youth (77%) attend Title I schools.

Table 2. *Black Students With Access to Identification as Gifted for 2000, 2011–2012, 2013–2014, and 2015–2016 in the Nation.*

Year	Students Enrolled	Students in Schools that Identify	Students Identified in Schools that ID	Students Identified in Non-Title I Schools that ID	Students Identified in Title I Schools that ID	Ratio of ID in Title I Schools Compared to Non-Title I Schools
2015–2016	7,791,746	5,115,049	276,840	88,073	185,631	
	15.44%	65.65%	5.41%	8.39%	4.60%	0.55
2013–2014	7,740,855	5,055,720	342,338	81,662	259,429	
	15.51%	65.31%	6.77%	8.83%	6.32%	0.72
2011–2012	7,887,293	5,123,374	281,000	129,788	144,244	
	15.89%	64.96%	5.48%	7.03%	4.56%	0.65
2000	7,816,624	5,251,104	233,335	N/A	N/A	
	17.06%	67.18%	4.44%			

Note. Total students identified may not equal students in Title I and Non-Title I schools because a few schools in each state did not designate Title I status. School Title I status was not available for 2000.

In the District of Columbia, which has the largest percentage of Black students in their enrollment, no students attended schools where they could be identified with gifts and talents in 2015–2016, and in Massachusetts, Rhode Island, and Vermont, less than 5% of all students attended schools where they could be identified. Because these states had extremely low to no access to identification for all students, our analyses calculations concerning equity were rendered meaningless; their data has been included for reference only.

In Table 3, ordered alphabetically, the first two columns display the percentage of students with access to identification in 2015-2016, meaning these students attend schools that identify youth with gifts and talents. We used a guideline of 60% or greater as acceptable percentages for access to identification, a guideline first outlined by Gentry et al. (2019). It cannot be overlooked that the District of Columbia, with the highest percentage of Black students in its enrollment, had no access to gifted identification for any of its public school students. In 33 states, Black student access was greater than 60%. Fourteen states had failing percentages of access below 60% (**CT**, **DE**, **ID, IL**, MI, ND, NH, **NJ**, NY, **OH**, **PA**, **TN**, UT, and WY), and nine of these states (**CT, DE**, **IL**, MI, **NJ**, NY, **OH**, **PA**, and **TN**) were among the 28 states that educated 90% of all Black students; seven of which (in bold font) had mandates regarding identification and/or services for students. Additionally, 12 of the 14 states also had

failing percentages of access for all students in the state (**CT**, **DE**, **ID, IL**, MI, ND, NH, **NJ**, NY, **TN**, UT, and WY).

The last column in Table 3 contains a ratio showing how the access to gifted identification of Black students compared to the access of all students for each state. States with values above 0.95 are considered to have equal access, with 13 states (**IL, IN, KY, LA**, MI, MO, NH, **NJ,** NY, **OH, PA, TN,** and WY) having unequal access based on this criterion (designated with an asterisk). Additionally, 8 of these states (in bold) had mandates for gifted education. This is a serious finding as lack of access is prohibitive to equitable identification, for example, in Illinois, Black students have only 73% of the access as other students, meaning they are far more likely to attend a school that identifies no children with gifts and talents than are other students.

Table 3. *Percentage of Black Students With Access, Percentage of All Students with Access, and Ratio of Black to All Students for 2015–2016.*

State	% Black Students in Schools That Identify	% All Students in Schools That Identify	Ratio of Black to All in Schools That Identify
AK	89.28	70.88	1.26
AL	73.46	74.45	0.99
AR	86.74	88.55	0.98
AZ	67.10	63.30	1.06
CA	68.52	67.78	1.01
CO	93.45	93.38	1.00
CT	**32.40**	**33.01**	0.98
DC	0.00	0.00	0.00
DE	**31.86**	**33.17**	0.96
FL	84.28	87.86	0.96
GA	92.96	95.61	0.97
HI	72.09	63.78	1.13
IA	92.16	93.90	0.98
ID	**50.19**	**52.25**	0.96
IL	**18.83**	**25.76**	*0.73
IN	73.91	84.53	*0.87
KS	81.38	85.27	0.95
KY	84.07	92.97	*0.90
LA	79.61	86.70	*0.92
MA	7.51	4.16	1.80
MD	66.71	69.46	0.96

Table 3. continued

State	% Black Students in Schools That Identify	% All Students in Schools That Identify	Ratio of Black to All in Schools That Identify
ME	90.20	79.64	1.13
MI	**7.07**	**10.20**	***0.69**
MN	67.83	**53.60**	1.27
MO	65.10	70.51	***0.92**
MS	69.40	71.57	0.97
MT	65.47	**52.46**	1.25
NC	91.93	92.88	0.99
ND	**48.19**	**29.57**	1.63
NE	90.14	83.19	1.08
NH	**4.84**	**9.24**	***0.52**
NJ	**37.27**	**50.77**	***0.73**
NM	85.68	86.31	0.99
NV	95.10	90.29	1.05
NY	**7.90**	**11.38**	***0.69**
OH	**55.59**	68.60	***0.81**
OK	94.17	92.45	1.02
OR	89.43	81.96	1.09
PA	**47.50**	80.82	***0.59**
~~RI~~	~~0.08~~	~~1.09~~	~~0.07~~
SC	88.00	90.11	0.98
SD	65.93	**28.94**	2.28
TN	**44.67**	**54.03**	***0.83**
TX	92.14	93.24	0.99
UT	**48.81**	**36.81**	1.33
VA	93.09	93.08	1.00
~~VT~~	~~0.75~~	~~2.37~~	~~0.32~~
WA	71.09	72.16	0.99
WI	71.01	60.90	1.17
WV	73.85	74.65	0.99
WY	**41.91**	**49.99**	***0.84**
Nation	65.65	67.38	0.97

Note. No students in the District of Columbia, and less than 5% of all students in Massachusetts, Rhode Island, and Vermont have access to identification rendering calculations meaningless, therefore these states have been crossed out, but the information is included for reference. States in bold font have mandates regarding the identification and/or service of students with gifts and talents. Percentages in bold font are below 60%. Ratios in bold with * are below 0.95 and indicate unequal access for Black students.

The percentage of Black students identified with gifts and talents in a state was calculated from the number of Black students attending schools that identified students with gifts and talents (Table 4). Identification percentages for Non-Title I schools and Title I schools are listed separately because Gentry et al. (2019) found that Non-Title I schools consistently identify a larger percentage of students than Title I schools. This is discussed further in the "(In)Equity of Access and Identification" section. The national average percentage for Black students attending schools that identify was 5.41%, among the states the average percentage ranged from 1.02% (KS) to 16.34% (MD). In Non-Title I schools, the national percentage identified was 8.39% and the state percentages ranged from 1.13 (KS) to 18.38% (MD). The national percentage in Title I school identification was 4.60% and the state percentages ranged from 0.97% (SD) to 14.46% (MD). The ratio of identification of Title I schools to Non-Title I schools provides information on how different the percentages are. If the ratio is 0.95 or greater, the percentages identified between the school types are similar (within 5% or less); if the ratio is less than 0.80 significantly fewer students are identified in Title I schools than Non-Title I schools, and this is the case for over half of the states and the nation as indicated by bold font. The smaller the ratio, the worse the inequity.

Table 4. *Black Students With Access to Identification, the Percent and Number Identified With Gifted and Talents in the State, the Percent and Number Identified in Non-Title I Schools, and the Percent and Number Identified in Title I Schools, With the Ratio of Identification of Black Students in Title I schools to Identification in Non-Title I Schools, in 2015–2016.*

State	Students With Access to Identification	Students Identified as GT in Schools that have GT		Students Identified as GT in Non-Title I Schools		Students Identified as GT in Title I Schools		Ratio of ID in Title I Schools to ID in Non-Title I Schools
	N	%	N	%	N	%	N	
AK	3,708	3.88	144	3.88	50	3.89	94	1.00
AL	183,180	4.54	8,320	5.90	1,943	4.25	6,308	**0.72**
AR	85,272	8.86	7,553	6.40	192	8.98	7,246	1.40
AZ	40,363	3.16	1,276	1.65	2	3.19	1,271	1.93
CA	249,983	5.87	14,676	7.07	4,081	5.46	10,280	**0.77**
CO	38,887	4.16	1,617	4.71	1,086	3.35	531	**0.71**
CT	22,304	3.88	865	5.10	470	3.05	394	**0.60**
~~DC~~	~~0~~	~~0.00~~	~~0~~	~~0.00~~	~~0~~	~~0.00~~	~~0~~	~~0.00~~
DE	13,809	4.98	688	8.51	176	4.36	512	**0.51**
FL	528,593	2.89	15,264	4.18	1,469	2.80	13,787	**0.67**
GA	607,563	5.64	34,285	9.32	12,855	4.56	21,331	**0.49**
HI	2,544	2.16	55	1.67	30	3.36	25	2.01
IA	26,280	3.23	849	3.24	172	3.23	677	1.00
ID	1,582	2.09	33	3.04	8	1.90	25	**0.62**
IL	66,099	9.26	6,121	17.65	1,670	8.20	4,377	**0.46**
IN	93,425	6.66	6,221	11.42	978	6.17	5,225	**0.54**
KS	28,729	1.02	294	1.13	48	1.01	246	0.89
KY	61,235	5.93	3,632	11.91	498	5.49	3,134	**0.46**
LA	253,526	2.77	7,017	5.49	863	2.57	6,056	**0.47**
~~MA~~	~~6,323~~	~~15.94~~	~~1,008~~	~~17.22~~	~~108~~	~~15.72~~	~~889~~	~~0.91~~

Table 4. continued

State	Students With Access to Identification N	Students Identified as GT in Schools that have GT %	N	Students Identified as GT in Non-Title I Schools %	N	Students Identified as GT in Title I Schools %	N	Ratio of ID in Title I Schools to ID in Non-Title I Schools
MD	207,249	16.34	33,865	18.38	15,721	14.86	17,948	0.81
ME	5,469	2.69	147	2.80	7	2.68	140	0.96
MI	19,704	10.87	2,141	16.67	1,129	7.82	1,012	0.47
MN	62,447	9.15	5,713	8.08	1,901	9.80	3,809	1.21
MO	96,762	2.87	2,774	4.08	715	2.61	2,058	0.64
MS	169,408	5.66	9,592	5.15	1,038	5.74	8,545	1.11
MT	895	2.68	24	1.63	2	2.85	22	1.75
NC	367,360	4.73	17,376	7.91	4,879	4.09	12,497	0.52
ND	2,497	2.68	67	3.28	32	2.30	35	0.70
NE	19,749	6.70	1,323	8.28	874	4.89	449	0.59
NH	170	7.06	12	8.82	3	6.62	9	0.75
NJ	81,124	7.72	6,263	5.83	865	8.12	5,379	1.39
NM	5,751	3.91	225	5.99	36	3.66	183	0.61
NV	46,823	2.24	1,050	2.39	261	2.20	789	0.92
NY	37,925	12.70	4,815	4.28	193	12.90	2,847	3.01
OH	156,681	2.78	4,348	4.25	613	2.63	3,733	0.62
OK	58,355	8.16	4,762	12.11	620	7.78	4,136	0.64
OR	12,113	2.92	354	3.61	217	2.13	129	0.59
PA	121,541	1.66	2,014	2.08	436	1.57	1,576	0.76
RI	9	0.00	0	0.00	0	0.00	0	0.00
SC	232,789	8.66	20,160	12.20	13,851	5.30	6,282	0.43
SD	2,593	1.20	31	1.47	17	0.97	14	0.66
TN	100,646	1.30	1,305	3.14	281	1.12	1,023	0.36
TX	612,528	4.23	25,881	4.83	3,805	4.14	22,017	0.86

Table 4 continued

State	Students With Access to Identification	Students Identified as GT in Schools that have GT		Students Identified as GT in Non-Title I Schools		Students Identified as GT in Title I Schools		Ratio of ID in Title I Schools to ID in Non-Title I Schools
	N	%	N	%	N	%	N	
UT	4,493	10.84	487	10.64	276	11.11	211	1.04
VA	274,172	6.72	18,417	8.08	12,822	4.68	5,384	**0.58**
~~VT~~	~~15~~	~~13.33~~	~~2~~	~~0.00~~	~~0~~	~~15.38~~	~~2~~	~~0.00~~
WA	34,629	2.56	885	2.47	275	2.61	610	1.06
WI	58,166	4.73	2,753	3.55	425	5.04	2,328	1.42
WV	9,128	1.26	115	1.36	70	1.13	45	0.84
WY	453	4.64	21	3.45	10	6.75	11	1.96
Nation	5,115,049	5.41	276,840	8.39	88,073	4.60	185,631	**0.55**

Note. States in bold font have mandates regarding the identification and/or service of students with gifts and talents. Ratios in bold font are below 0.80 and indicate failing equity. No students in the District of Columbia, and less than 5% of all students in Massachusetts, Rhode Island, and Vermont have access to identification rendering calculations meaningless, therefore these states have been crossed out, with information included for reference only.

(In)Equity of Access and Identification

In measuring equity, exact proportionality is a ratio of 1.00. Following the *fourth-fifths rule* (80%) guideline, ratios of 0.80 through 0.95 are considered approaching equity, and ratios of 0.95 or above are equitable. Ratios less than 0.80 are considered failing and as having *adverse impact* on Black students.

Nationally, students attending Non-Title I schools have had less access to identification, over the three CRDC reporting years, than students attending Title I schools (Gentry et al. 2019). But, Non-Title I schools identified a greater percentage of students with gifts and talents that Title I schools. Inequity in identification rates based on school Title I status has been a persistent issue for Black students (see Table 2). In 2013–2014 among schools that identified youth with gifts and talents, the ratio of Black students identified in Title I schools to Black students identified in Non-Title I schools increased from 0.65 in 2011–2012 to 0.72. Then, in 2015–2016, the ratio dropped to a low of 0.55. None of these ratios met the four-fifths rule, *m*eaning that during all three periods Black students experienced *adverse impact* in identification from attending Title I schools. In fact, in 2015–2016, Black students in Title I schools were identified at only 55% the rate of those in Non-Title I schools.

The ratios in Table 3 (last column) show equity in most states between the access to identification of gifts and talents experienced by Black students in proportion to the access to identification experienced by all students. Thirteen states (**IL, IN, KY, LA,** MI, MO, NH, **NJ,** NY, **OH, PA, TN,** and WY) had ratios below 0.95, indicating Black student access to identification was lower than access for all students at proportions below the criterion for equity of access outlined by Gentry et al. (2019). In seven of these states (**IL,** MI, NH, **NJ,** NY, **TN,** and WY), all students as well as Black students had access to identification at percentages below the access criterion of 60%.

In the nation, Black students who attended Non-Title I schools with identification were likely to be identified than Black students in Title I schools that identified (see Table 4). The national ratio of 0.55 was below the four-fifths rule (0.80) criteria and reveals inequity in identification of Black students with gifts and talents related to the Title I status of the schools they attended. This inequity is echoed in the ratios of 33 states, which ranged from 0.36 in Tennessee to 0.77 in California.

The ratios in Table 4 compare identification percentages for Black students by school Title I status, whereas the ratios in Table 5 compare identification within the same schools, between Black student identification percentages and identification percentages for all students. Of the 156 ratios in Table 5, 144 do not meet the four-fifths rule (0.80). For the average percentage of identification ratio, Arkansas, Michigan, New York, and Utah have equitable identification. In Non-Title I schools, Black students have equitable identification in Illinois and Michigan, and in Title I schools, Black students have equitable identification in Arkansas, Maryland, Michigan, New York, Utah, and Wyoming. Michigan is equitable in the identification of Black students in Title I, Non-Title I, and among all schools, and Arkansas, New York, and Utah were equitable in identification in Title I schools and among all schools; yet, some of these numbers are misleading. In Michigan, New York, and Utah only 7%, 8%, and 49% of Black students, respectively, have access to identification. In Arkansas, on the other hand, 87% of Black students had access to identification (ratios of 0.80 and above are designated with an asterisk); Arkansas was also 13th for percentage of Black students in their enrollment.

Table 5. *Percentage of Black Students and All Students Identified With Ratios of Black to All Students in Schools With Access, Non-Title I Schools With Access, and Title I Schools With Access to Identification, 2015–2016.*

State	Students ID as GT in Schools that have GT		Ratio of Black Student ID to All Student ID in Schools with GT	Students ID as GT in Non-Title I Schools		Ratio of Black Student ID to All Student ID in Non-Title I Schools with GT	Number of Students ID as GT in Title I Schools		Ratio of Black Student ID to All Student ID in Title I Schools with GT
	% Black	% All		% Black	% All		% Black	% All	
AK	3.88	6.84	**0.57**	3.88	7.99	**0.49**	3.89	5.64	**0.69**
AL	4.54	9.32	**0.49**	5.90	12.76	**0.46**	4.25	7.83	**0.54**
AR	8.86	10.76	*0.82	6.40	11.91	**0.54**	8.98	10.67	0.84
AZ	3.16	7.40	**0.43**	1.65	5.77	**0.29**	3.19	7.45	**0.43**
CA	5.87	10.00	**0.59**	7.07	12.71	**0.56**	5.46	8.81	**0.62**
CO	4.16	8.22	**0.51**	4.71	9.61	**0.49**	3.35	4.51	**0.74**
CT	3.88	6.73	**0.58**	5.10	8.74	**0.58**	3.05	4.83	**0.63**
~~DC~~	~~0.00~~	~~0.00~~	~~0.00~~	~~0.00~~	~~0.00~~	~~0.00~~	~~0.00~~	~~0.00~~	~~0.00~~
DE	4.98	7.84	**0.64**	8.51	10.94	**0.78**	4.36	7.05	**0.62**
FL	2.89	6.75	**0.43**	4.18	11.49	**0.36**	2.80	5.92	**0.47**
GA	5.64	11.21	**0.50**	9.32	17.49	**0.53**	4.56	7.37	**0.62**
HI	2.16	4.36	**0.50**	1.67	3.63	**0.46**	3.36	5.13	**0.65**
IA	3.23	9.36	**0.35**	3.24	11.87	**0.27**	3.23	8.09	**0.40**
ID	2.09	4.63	**0.45**	3.04	5.51	**0.55**	1.90	4.43	**0.43**
IL	9.26	13.20	**0.70**	17.65	15.49	*1.14	8.20	12.83	**0.64**
IN	6.66	14.54	**0.46**	11.42	21.42	**0.53**	6.17	12.48	**0.49**
KS	1.02	3.02	**0.34**	1.13	4.12	**0.27**	1.01	2.68	**0.38**
KY	5.93	14.83	**0.40**	11.91	18.54	**0.64**	5.49	14.48	**0.38**
LA	2.77	4.73	**0.59**	5.49	9.89	**0.55**	2.57	4.00	**0.64**
~~MA~~	~~15.94~~	~~16.99~~	~~0.94~~	~~17.22~~	~~19.18~~	~~0.90~~	~~15.72~~	~~15.70~~	~~1.00~~
MD	16.34	24.37	**0.67**	18.38	30.12	**0.61**	14.86	18.70	*0.80

Table 5. continued

State	Students ID as GT in Schools that have GT		Ratio of Black Student ID to All Student ID in Schools with GT	Students ID as GT in Non-Title I Schools		Ratio of Black Student ID to All Student ID in Non-Title I Schools with GT	Number of Students ID as GT in Title I Schools		Ratio of Black Student ID to All Student ID in Title I Schools with GT
	% Black	% All		% Black	% All		% Black	% All	
ME	2.69	6.74	**0.40**	2.80	7.61	**0.37**	2.68	6.63	**0.40**
MI	10.87	12.47	*0.87	16.67	16.12	*1.03	7.82	7.93	*0.99
MN	9.15	14.76	**0.62**	8.08	15.50	**0.52**	9.80	13.91	**0.70**
MO	2.87	5.58	**0.51**	4.08	7.48	**0.54**	2.61	4.98	**0.52**
MS	5.66	9.44	**0.60**	5.15	12.22	**0.42**	5.74	8.79	**0.65**
MT	2.68	6.40	**0.42**	1.63	6.19	**0.26**	2.85	6.43	**0.44**
NC	4.73	11.85	**0.40**	7.91	19.54	**0.40**	4.09	9.25	**0.44**
ND	2.68	8.76	**0.31**	3.28	10.06	**0.33**	2.30	7.54	**0.30**
NE	6.70	13.57	**0.49**	8.28	17.38	**0.48**	4.89	7.29	**0.67**
NH	7.06	11.94	**0.59**	8.82	12.16	**0.73**	6.62	11.88	**0.56**
NJ	7.72	11.50	**0.67**	5.83	12.14	**0.48**	8.12	11.15	**0.73**
NM	3.91	5.55	**0.71**	5.99	11.77	**0.51**	3.66	4.82	**0.76**
NV	2.24	5.78	**0.39**	2.39	6.92	**0.35**	2.20	5.03	**0.44**
NY	12.70	14.11	*0.90	4.28	10.73	**0.40**	12.90	13.03	*0.99
OH	2.78	9.09	**0.31**	4.25	13.07	**0.33**	2.63	7.88	**0.33**
OK	8.16	15.04	**0.54**	12.11	22.56	**0.54**	7.78	14.02	**0.55**
OR	2.92	7.05	**0.41**	3.61	9.19	**0.39**	2.13	3.15	**0.68**
PA	1.66	4.31	**0.38**	2.08	5.96	**0.35**	1.57	3.73	**0.42**
~~RI~~	~~0.00~~	~~9.61~~	~~0.00~~	~~0.00~~	~~4.12~~	~~0.00~~	~~0.00~~	~~13.67~~	~~0.00~~
SC	8.66	17.09	**0.51**	12.20	22.28	**0.55**	5.30	8.55	**0.62**
SD	1.20	6.77	**0.18**	1.47	8.75	**0.17**	0.97	4.97	**0.20**
TN	1.30	2.82	**0.46**	3.14	5.66	**0.55**	1.12	2.20	**0.51**
TX	4.23	8.19	**0.52**	4.83	12.10	**0.40**	4.14	7.24	**0.57**

Table 5 continued.

State	Students ID as GT in Schools that have GT		Ratio of Black Student ID to All Student ID in Schools with GT	Students ID as GT in Non-Title I Schools		Ratio of Black Student ID to All Student ID in Non-Title I Schools with GT	Number of Students ID as GT in Title I Schools		Ratio of Black Student ID to All Student ID in Title I Schools with GT
	% Black	% All		% Black	% All		% Black	% All	
UT	10.84	12.68	*0.85	10.64	14.72	**0.72**	11.11	7.37	*1.51
VA	6.72	13.42	**0.50**	8.08	15.98	**0.51**	4.68	7.24	**0.65**
~~VT~~	~~13.33~~	~~6.15~~	~~2.17~~	~~0.00~~	~~0.62~~	~~0.00~~	~~15.38~~	~~8.83~~	~~1.74~~
WA	2.56	6.49	**0.39**	2.47	6.86	**0.36**	2.61	6.34	**0.41**
WI	4.73	8.55	**0.55**	3.55	9.40	**0.38**	5.04	7.84	**0.64**
WV	1.26	2.57	**0.49**	1.36	3.13	**0.43**	1.13	1.72	**0.66**
WY	4.64	7.76	**0.60**	3.45	8.51	**0.41**	6.75	6.52	*1.03
Nation	5.41	9.57	**0.57**	8.39	13.46	**0.62**	4.60	7.86	**0.59**

Note. States in bold font have mandates regarding the identification and/or service of students with gifts and talents. Ratios in bold font are below 0.80 and indicate failing equity. Ratios with * are at or above 0.80 and indicate passing equity. No students in the District of Columbia, and less than 5% of all students in Massachusetts, Rhode Island, and Vermont have access to identification rendering calculations meaningless, therefore these states have been crossed out, but the information is included for reference.

(In)Equity of Representation

      A Representation index (RI) is a measure of equity, here between the representation of Black students among those identified with gifts and talents and the representation of Black students among enrolled students. An RI less than 0.80 is considered failing, 1.00 is exact proportionality, and RIs greater than 1.00 are regarded as well-represented. There are 336 RIs in Table 6 including Overall RIs, and RIs for Title Status and Locale for each state. Across 310 of these settings, failing RIs exist for Black students with gifts and talents. Of the 30 RIs at or greater than 0.80 (designated with an asterisk in Table 6), 15 states had at least 1 passing RI (**AK, AR, DE**, **HI, IL, MD, ME,** MI, **MS,** NH, **NJ, NM,** NY, UT, and WY). Six states had equitable RIs in Title I schools (**AR, MD,** MI, NY, UT, and WY); whereas, only two states had equitable RIs in Non-Title I schools (**IL** and MI). Black students in schools among the locales had equitable RIs in City schools in eight states (**AR,** MI, **MS,** NH, NJ, NY, UT, and WY), an equitable RI in Suburb schools in Utah, equitable RIs in four states (**HI, ME,** NH, and **NJ)** in Town schools, and equitable Rural school RIs in five states (**AK, DE, NM,** NY, and UT). The eight states with passing RIs in City schools are noteworthy as nationally 45.51% of Black students are educated in city schools. Also, the national average RI for Black students in City schools (0.55) and Suburb schools (0.59), where a combined 80.44% of Black youth were educated, was higher than in Town and Rural schools (both had RIs of 0.51). That being said, looking at the RI analyses conducted by Gentry et al (2019) the underrepresentation of Black students with gifts and talents when compared to the representation of White students is astounding. Nationally White student RIs in 2015-2106 were: City, 1.44; Suburb, 1.22; Town, 1.23; and Rural, 1.15. The disparity is even greater when compared to representation rates of Asian students in: City, 1.99; Suburb, 1.95; Town, 1.75; and Rural, 1.99. Figures 1, 2, and 3 show the National RIs for Asian, Black, and White students in all locales (City, Suburb, Town, Rural) for the three data collection periods in which locale was available. Little has changed over these years.

Table 6. *Representation Indices Overall, by Title I Status and by Locale for Black Students Identified With Gifts and Talents, 2015–2016.*

State	# Black Students Identified	Overall RI	Non-Title I RI	Title I RI	City RI	Suburb RI	Town RI	Rural RI
AK	144	0.57	0.49	0.69	0.47	0.56	0.78	*0.91
AL	8,320	0.49	0.46	0.54	0.58	0.46	0.46	0.48
AR	7,553	*0.82	0.54	*0.84	*1.00	0.55	0.62	0.78
AZ	1,276	0.43	0.29	0.43	0.43	0.38	0.58	0.44
CA	14,676	0.59	0.56	0.62	0.59	0.56	0.46	0.61
CO	1,617	0.51	0.49	0.74	0.50	0.40	0.29	0.28
CT	865	0.58	0.58	0.63	0.55	0.58	0.42	0.51
DC	0							
DE	688	0.64	0.78	0.62	0.56	0.55	0.17	*0.96
FL	15,264	0.43	0.36	0.47	0.36	0.45	0.44	0.41
GA	34,285	0.50	0.53	0.62	0.46	0.53	0.35	0.47
HI	55	0.50	0.46	0.65	0.50	0.50	*1.21	0.34
IA	849	0.35	0.27	0.40	0.36	0.22	0.34	0.23
ID	33	0.45	0.55	0.43	0.42	0.45	0.63	0.13
IL	6,121	0.70	*1.14	0.64	0.73	0.69	0.37	0.47
IN	6,221	0.46	0.53	0.49	0.46	0.47	0.37	0.44
KS	294	0.34	0.27	0.38	0.30	0.28	0.34	0.44
KY	3,632	0.40	0.64	0.38	0.41	0.39	0.50	0.47
LA	7,017	0.59	0.55	0.64	0.57	0.52	0.62	0.49
MA	1,008	0.94	0.90	1.00	0.86	0.76		0.00
MD	33,865	0.67	0.61	*0.80	0.56	0.70	0.37	0.71
ME	147	0.40	0.37	0.40	0.39	0.17	*0.82	0.47
MI	2,141	*0.87	*1.03	*0.99	*1.11	0.62	0.14	0.23
MN	5,713	0.62	0.52	0.70	0.56	0.58	0.34	0.74
MO	2,774	0.51	0.54	0.52	0.53	0.48	0.27	0.38
MS	9,592	0.60	0.42	0.65	*0.94	0.43	0.53	0.52
MT	24	0.42	0.26	0.44	0.64	0.00	0.16	0.34
NC	17,376	0.40	0.40	0.44	0.40	0.35	0.42	0.41
ND	67	0.31	0.33	0.30	0.26	0.28	0.51	0.00
NE	1,323	0.49	0.48	0.67	0.47	0.38	0.46	0.62
NH	12	0.59	0.73	0.56	*1.07	0.49	*3.80	0.59
NJ	6,263	0.67	0.48	0.73	*0.93	0.64	*0.85	0.49
NM	225	0.71	0.51	0.76	0.72	0.72	0.49	*0.85
NV	1,050	0.39	0.35	0.44	0.35	0.42	0.63	0.34
NY	4,815	*0.90	0.40	*0.99	*0.81	0.77	0.45	*0.82
OH	4,348	0.31	0.33	0.33	0.54	0.28	0.36	0.40
OK	4,762	0.54	0.54	0.55	0.56	0.53	0.77	0.54
OR	354	0.41	0.39	0.68	0.33	0.35	0.51	0.46
PA	2,014	0.38	0.35	0.42	0.57	0.31	0.41	0.41
RI	0	0.00	0.00	0.00		0.00		0.00
SC	20,160	0.51	0.55	0.62	0.52	0.52	0.58	0.49
SD	31	0.18	0.17	0.20	0.17		0.16	0.51
TN	1,305	0.46	0.55	0.51	0.44	0.43	0.43	0.51

Table 6. continued

State	# Black Students Identified	Overall RI	Non-Title I RI	Title I RI	City RI	Suburb RI	Town RI	Rural RI
TX	25,881	**0.52**	**0.40**	**0.57**	**0.53**	**0.47**	**0.49**	**0.46**
UT	487	*0.85	**0.72**	*1.51	*0.93	*0.83	**0.79**	*1.05
VA	18,417	**0.50**	**0.51**	**0.65**	**0.55**	**0.45**	**0.64**	**0.39**
VT	~~2~~	~~2.17~~	~~0.00~~	~~1.74~~				~~2.17~~
WA	885	**0.39**	**0.36**	**0.41**	**0.23**	**0.57**	**0.69**	**0.42**
WI	2,753	**0.55**	**0.38**	**0.64**	**0.63**	**0.53**	**0.43**	**0.33**
WV	115	**0.49**	**0.43**	**0.66**	**0.39**	**0.56**	**0.30**	**0.43**
WY	21	**0.60**	**0.41**	*1.03	*0.85	**0.00**	**0.76**	**0.21**
Nation	276,840	**0.57**	**0.62**	**0.59**	**0.55**	**0.59**	**0.51**	**0.51**

Note. A Blank indicates there were no Black students in that setting, 0.00 indicates that although there are Black students in this setting, none were identified with gifts and talents. States in bold font have mandates regarding the identification and/or service of students with gifts and talents. RIs in bold font are below 0.80 and indicate failing equity. RIs with * are at or above 0.80 and indicate passing equity. No students in the District of Columbia, and less than 5% of all students in Massachusetts, Rhode Island, and Vermont have access to identification rendering calculations meaningless, therefore these states have been crossed out, but the information is included for reference.
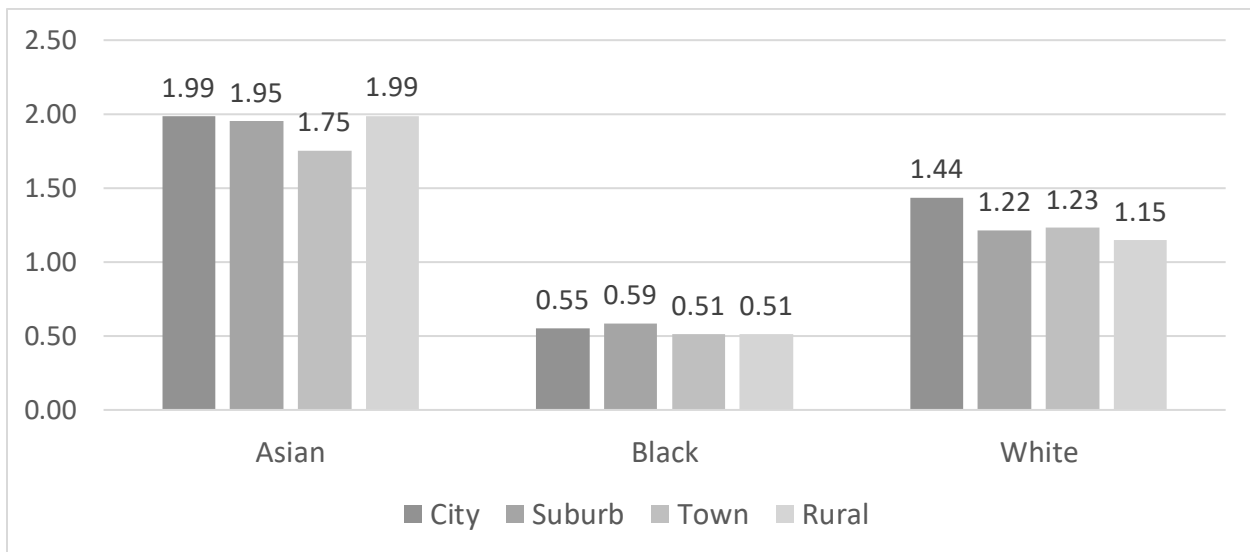
Figure 1. National Representation Indices (RIs) By Locale and Race 2015-2016
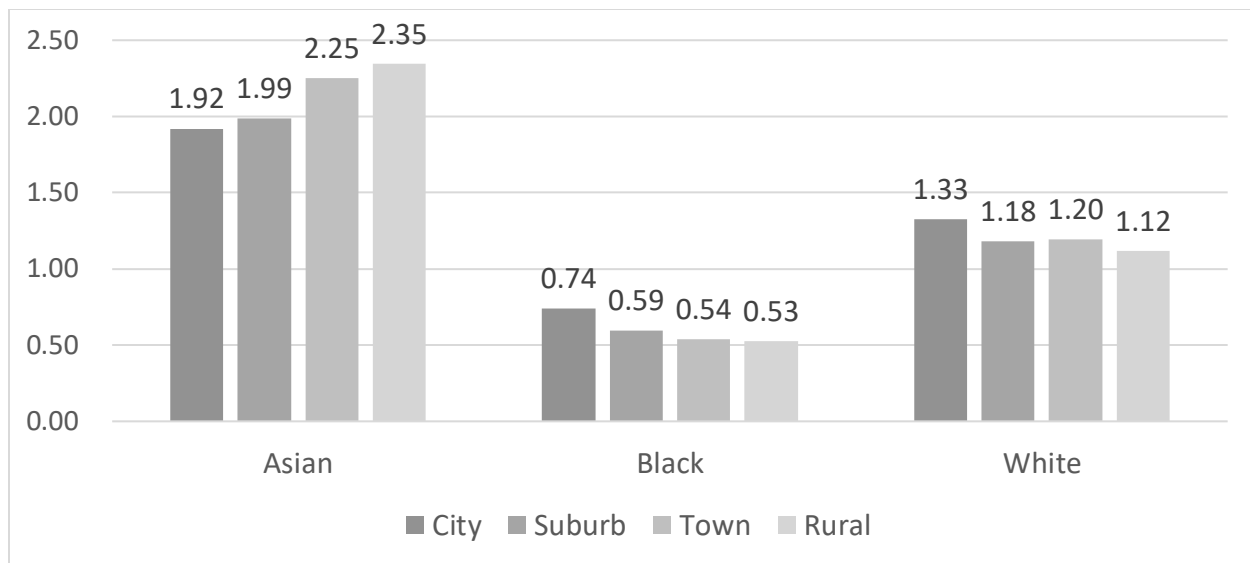
Figure 2. National Representation Indices (RIs) By Locale and Race 2013-2014
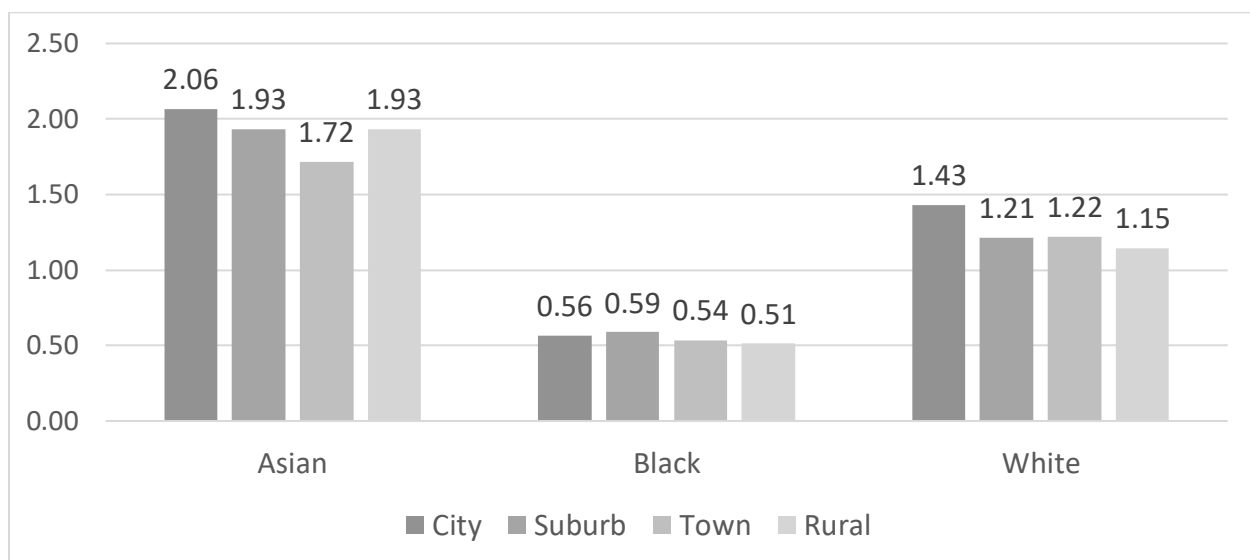
Figure 3. National Representation Indices (RIs) By Locale and Race 2011-2012

Figure 4 depicts RI scores across all 50 states and the District of Columbia. Although an RI of 0.80 is considered passing, it must be noted that it is still only 80% equitable. Gentry et al. (2019) graded each state on equity overall and by Title I school status, with encouragement to schools to put measures in place to eliminate inequity and target equitable representation. They scored an RI of 0.80 with a letter grade of "D." Clearly, an RI of 0.80 is better than one of 0.40, but improvement is warranted to achieve equity.

BLACK IN ALL SCHOOLS

BLACK IN NON-TITLE I SCHOOLS

BLACK IN TITLE I SCHOOLS

Figure 4. Representation Indices (RIs) for Black Youth by State in All, Non-Title I, and Title I Schools, 2015–2016

Note. Bold typeface denotes the 10 states with the largest percentage of Black youth attending schools that identify students with gifts and talents. Because fewer than 5% of their students have access to identification, the District of Columbia, Massachusetts, Rhode Island, and Vermont are not included in this table.

Black Youth Missing From Gifted Identification

As described in the "Data Analysis" section, the calculations for missingness at the lower boundary estimate is based on each state's average percentage of students identified, and at the upper boundary estimate is based on each state's average percentage of students identified in Non-Title I schools. Adapting 20% as the cut off criterion for approaching an acceptable percentage of Black youth missing from identification with gifts and talents (Gentry et al, 2019), no state meets these criteria. In fact, Arkansas (28.60%) and Oklahoma (48.89%) have the lowest percentages of Black youth missing from identification at the lower boundary estimate. But, even with smaller Black student populations, these percentages equate to an estimated 3,025 and 4,556 Black youth, respectively, missing from gifted identification. All other states were missing between 49.32% (AK) and 100% (DC & RI) of their Black students with gifts and talents from identification at the lower boundary estimate. This is truly disturbing in states (or in this case a federal district) like the District of Columbia where of 70% of the public school students are Black. The upper boundary estimated percentages of Black students missing from identification of their gifts and talents in every state were well above 20%, starting at 35.51% in Arkansas. Nationally, 276,840 Black students with gifts and talents were identified; however, between 469,213 (62.89%) and 771,728 (73.60%) were missing from identification. In short across the country, more Black students are missing by far, than are identified with gifts and talents, due to lack of access and underidentification. These data are depicted in Table 7, and in Figure 5.

Table 7. *Black Students Identified with Gifts and Talents in 2015-2016 with Estimated Number and Percentage of Latinx Youth Missing at Lower and Upper Boundaries.*

State	Black Students Identified with Gifts and Talents	Black Students Missing at Lower Boundary Estimate	Black Students Missing at Upper Boundary Estimate	Percentage Missing at Lower Boundary	Percentage Missing at Upper Boundary
AK	144	140	188	49.32%	56.63%
AL	8,320	14,917	23,506	64.19%	73.86%
AR	7,553	3,025	4,160	28.60%	35.51%
AZ	1,276	3,176	2,195	71.34%	63.24%
CA	14,676	21,797	31,704	59.76%	68.36%
CO	1,617	1,804	2,384	52.74%	59.58%
CT	865	3,766	5,153	81.32%	85.63%
DC	0	5,564	7,826	100.00%	100.00%

Table 7. continued

State	Black Students Identified with Gifts and Talents	Black Students Missing at Lower Boundary Estimate	Black Students Missing at Upper Boundary Estimate	Percentage Missing at Lower Boundary	Percentage Missing at Upper Boundary
DE	688	2,711	4,052	79.76%	85.48%
FL	15,264	27,075	56,798	63.95%	78.82%
GA	34,285	38,969	80,004	53.20%	70.00%
HI	55	99	73	64.24%	57.12%
IA	849	1,821	2,535	68.20%	74.91%
ID	33	113	141	77.36%	81.01%
IL	6,121	40,197	48,248	86.78%	88.74%
IN	6,221	12,157	20,853	66.15%	77.02%
KS	294	772	1,159	72.42%	79.76%
KY	3,632	7,173	9,870	66.39%	73.10%
LA	7,017	8,036	24,490	53.39%	77.73%
MA	1,008	7,453	10,482	88.09%	91.23%
MD	33,865	41,830	59,695	55.26%	63.80%
ME	147	262	315	64.02%	68.15%
MI	2,141	32,587	42,772	93.83%	95.23%
MN	5,713	7,880	8,556	57.97%	59.96%
MO	2,774	5,512	8,345	66.52%	75.05%
MS	9,592	13,464	20,246	58.40%	67.85%
MT	24	63	61	72.55%	71.62%
NC	17,376	29,973	60,727	63.30%	77.75%
ND	67	387	454	85.24%	87.15%
NE	1,323	1,650	2,484	55.49%	65.25%
NH	12	407	415	97.14%	97.19%
NJ	6,263	18,777	20,158	74.99%	76.29%
NM	225	147	565	39.57%	71.53%
NV	1,050	1,796	2,358	63.11%	69.19%
NY	4,815	62,953	47,458	92.89%	90.79%
OH	4,348	21,268	32,496	83.03%	88.20%
OK	4,762	4,556	9,216	48.89%	65.93%
OR	354	600	891	62.90%	71.57%
PA	2,014	9,005	13,226	81.72%	86.78%
RI	0	1,138	1,600	100.00%	100.00%
SC	20,160	25,055	38,766	55.41%	65.79%
SD	31	235	313	88.35%	90.99%
TN	1,305	5,056	11,453	79.48%	89.77%
TX	25,881	28,542	54,571	52.44%	67.83%

Table 7. continued

State	Black Students Identified with Gifts and Talents	Black Students Missing at Lower Boundary Estimate	Black Students Missing at Upper Boundary Estimate	Percentage Missing at Lower Boundary	Percentage Missing at Upper Boundary
UT	487	680	868	**58.28%**	**64.06%**
VA	18,417	21,112	28,645	**53.41%**	**60.87%**
VT	2	190	267	**98.96%**	**99.26%**
WA	885	2,278	2,456	**72.02%**	**73.51%**
WI	2,753	4,254	4,948	**60.71%**	**64.25%**
WV	115	202	272	**63.75%**	**70.26%**
WY	21	63	71	**74.98%**	**77.18%**
Nation	276,840	469,213	771,728	**62.89%**	**73.60%**

Note. States in bold font have mandates regarding the identification and/or service of students with gifts and talents. Percentages in bold font indicate unacceptable levels of missing Black students.

Figure 5 is a visual depiction of the percentage of Black youth with gifts and talents missing from identification across the country and in the nation. The black bar is the percentage of missingness at the lower boundary calculation. The gray bar, in addition to the black bar, is the percentage of missingness at the upper boundary calculation. The space between the end of a black or gray bar and the 100% line is the percentage of Black youth identified with gifts and talents in 2015-2016.
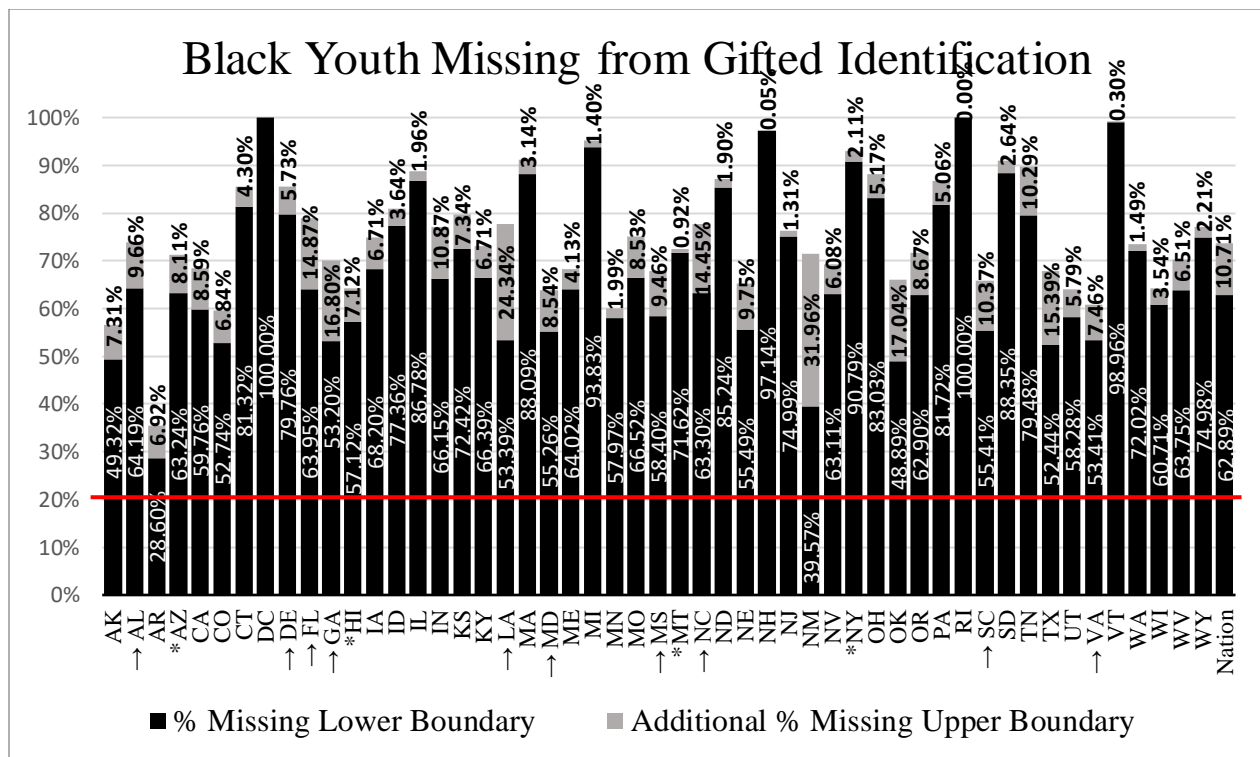
Figure 5. Percentage estimates of Black youth with gifts and talents missing from gifted identification by state and nation at lower and upper boundary estimates, 2015–2016.

Note. * In these states the state average identification rate is higher than the state average Non-Title I school identification. In these cases, the bars for % Missing Lower Boundary and the Additional % Missing Upper Boundary are reversed.
→ These states have the 10 largest proportions of Black students in their student enrollment among schools that identify students with gifts and talents. For the District of Columbia, Massachusetts, Rhode Island and Vermont, calculations for percentage missing at lower boundary were based on the national average percentage of students identified, and the percentage missing at the upper boundary were based on the national average percentage of students identified in Non-Title I schools.

Discussion

Clearly, these analyses reveal from a population perspective, over four waves of data, severe underrepresentation and missingness of Black youth identified with gifts and talents. This problem is longstanding, and from these data has shown little improvement over many years. It is imperative that schools attend to issues of access, equity and missingness of Black youth in gifted programs, lest they continue to engage in segregation, unequal access, and unequal educational opportunities and in doing so lose talents among this educationally vulnerable population of students. Ladson Billings (2006) is spot on when she talks about educational debt

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and inequality. These data underscore the depths of inequality in gifted education identification for Black youth in the United States.

Access and (In)Equity

Since 2000, the national percentage of Black students with access to identification has remained relatively consistent (see Table 2). In 2015–2016, Black students in 33 states had access to identification at or above 60% (see Table 3). Of the 18 states (including DC, MA, RI, and VT) with failing percentages of access for Black youth, 15 also had failing percentages for all students. Additionally, only five states show inequity below 80% (four-fifths rule) in the access percentages of Black students compared to access of all students. This means lack of access is not a major contributing factor in the general underrepresentation of Black youth with gifts and talents.

Identification and (In)Equity

Table 2 shows that inequity between the percentage of Black students identified in Title I schools versus the percentage identified in Non-Title I schools has consistently been failing (below 0.80) and that it was at its worst in 2015–2016. The ratio of 0.55 means that nationally, 45% fewer students in Title I schools were identified than in Non-Title I schools. This same inequity in identification is found in 33 states in Table 4, with 18 of these states among the 28 that educate 90% of the Black student population. Across the nation, 77% of Black youth attend Title I schools, where they experience the adverse impact of inequitably lower identification percentages. These results are congruent with findings of Kettler et al. (2015), who described a negative relationship between the concentration of poverty in a school and the amount of funding provided for gifted education. This fact, coupled with the underidentification of Black youth in general yields a bleak picture of inequity in gifted education for Black youth.

In Tables 5 and 6, inequity in the identification of Black students with gifts and talents becomes visually stark and undeniable. Table 5 displays that identification percentages of Black students, on average and in Non-Title I and Title I schools, were well below four-fifths of the identification percentages of all students in 92% of the comparisons. The representation indices in Table 6 show in 92% of these settings as well; the representation of Black students with gifts

and talents was less than four-fifths of their representation in the enrollment. Our results support the findings of studies showing the negative relationship between increased concentrations of poverty and student achievement (Battistich et al., 1995; Clotfelter et al., 2006; Kettler et al., 2015; Myers et al., 2004; Simon & Johnson, 2015; Vanderhaar et al., 2006). However, although these studies identified possible contributing factors, they cannot explain the extensiveness of inequity in identification experienced by Black students. Additionally, City and Suburb schools were found to provide greater financing and staffing for gifted education, and these were the locales where the vast majority of Black students were educated. Opportunity exists in these settings, as evidenced by the well-representation of White and Asian students with gifts and talents over the three data periods.

Missingness

In missingness, the effects of underrepresentation due to attending a school that does not identify or attending a school that identifies inequitably culminates (Table 7 and Figure 5). Nationally, we estimated 63% to 74% of Black youth with gifts and talents were unidentified in 2015–2016. This is between 469,213 and 771,728 Black students. Not one state meets the 20% criterion, indicating that practices that result in adverse impact to Black youth is not just a state issue, but could be tied to a larger structural issues, ones that have persisted since the beginning of gifted education. This is what Ladson-Billings (2016) is referring to when she speaks of the *education debt* experienced by Black students.

Limitations

The underrepresentation of Black youth with gifts and talents is so widespread and so pervasive, it is likely that nuanced patterns are missing from our analyses.

In the CRDC data set, approximately 2% of schools did not have a locale code and 4.5% did not have their Title I status reported. Schools from which this information was missing were not included in the analyses. Further, the data used are those reported by the schools. It is possible that school data are not accurate, and this could include under- and over-reporting of students identified with gifts and talents, as well as other errors in the data. Next, only identification data exist. We do not know about quality of programming, only about access to,

equity in, and missingness from identification with gifts and talents. Finally, the federal race/ethnicity categories are social constructs, they do not capture the variability within the human race.

Future Research

Within state analyses by district or even by schools within a district would allow for a finer separation of variables that could reveal patterns currently obscured by the state analyses. The procedures used here for analysis can be applied to all levels. Additional analyses may reveal districts or schools that equitably identified Black youth. This could shed light on policies and procedures that can serve to facilitate, or that act as barriers to, equitable access and identification for Black youth.

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CHAPTER 3. LATINX YOUTH IDENTIFIED AS GIFTED: ACCESS, REPRESENTATION, AND MISSINGNESS IN THE UNITED STATES

Abstract

To what extent are Hispanic or Latino (Latinx) students with gifts and talents proportionally identified? To what extent are they missing from identification due to lack of access or underidentification? This study used the Office of Civil Rights data for the years 2000, 2011-2012, 2013-2014, and 2015-2016 to investigate national and state underrepresentation of Latinx youth with gifts and talents. Schools were examined separately by Title I and Non-Title I status and by locale (City, Suburb, Town, Rural) to determine whether poverty concentration and/or school locale matter in the identification of Latinx youth. In 31 states and the nation, lack of access to identification was not a major contributing factor to underrepresentation. A disparity in identification percentages by school Title I status revealed 21% fewer Latinx students were identified in Title I schools than in Non-Title I schools. Across the states, with a criterion of 0.80 to meet the *four-fifths rule*, 92% of equity ratios and 93% of representation indices were inequitable with a compounding effect of adverse impact clearly displayed in Latinx students missing from gifted identification. In 2015-2016 there were 588,891 Latinx students identified; yet based on percentages identified between 658,544 (52.79%) and 1,164,363 (66.41%) Latinx youth with gifts and talents were missing from gifted identification that year.

Keywords: Latinx/Latina/Latino, Hispanic, Chicana/Chicano, gifted, talented, identification, access, Title I, equity, Rural, Urban, Suburban, Town

<center>**Background**</center>

Throughout this paper the term Latinx will be used to refer to youth whose data has been categorized into the federal racial group of *Hispanic or Latino* and defined as a person "of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race" (National Center for Education Statistics Statistical Standards, 2012, p. 7). The term Latinx is used here with knowledge that it fails to name the peoples who are a heterogenous mix of ethnicities and nationalities (Comas-Díaz, 2001) who have immigrated at different times under differing circumstances, and yet have been grouped together due to heritage language and/or geographic proximity. Further, the term Latinx is gender neutral.

Latinx Children and Public Education

The history of segregation of Latinx children in U.S. public schools has been discussed less than the history of segregation of Black children. Black children were segregated because of race; whereas, the segregation of Mexican American children, and later other Hispanic/Latino children was due to their culture and their language (Donato, 1997). In both cases, segregation, whether high profile or simply carried out quietly, resulted in inferior educations for those segregated. Following the Mexican-American War (1846-1848) and the appropriation of the territory that became the American Southwest, Mexican immigration increased (Garcia & Sung, 2018). Children of Mexican heritage were segregated into Mexican schools or Mexican classrooms with inferior facilities, materials, and instruction compared to those of their White peers (Donato, 1997). Segregation of Mexican students was justified as educationally necessary to "correct cultural and linguistic deficiencies" (Donato, 1997, p. 13).

Puerto Rico became a U.S. territory following the Spanish-American War, and Puerto Ricans were given U.S. citizenship in 1917. Puerto Ricans began migrating to the continental U.S. after this, and migration increased after World War II. A large population of Puerto Rican-Americans settled in New York City and began advocating for their children's education to be in both English and Spanish (Garcia & Sung, 2018). Large Cuban communities arose when Cubans sought asylum from the Castro regime from 1961 through 1996. (Caravantes, 2006). Immigrants from other Spanish speaking countries, Asian immigrants, Native Americans, and immigrants from other non-English speaking countries have

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all advocated for the rights of their children to fully participate in public education through bilingual education (Garcia & Sung, 2018).

Just as the history of public education for Black students is intertwined with civil rights litigation, so is education for Latinx students. Additionally, education of Latinx students is aligned with litigation for students to be educated in both English and Spanish. Many lawsuits requesting bilingual education for students' whose home language is Spanish were brought to the courts by Latinx parents and community groups. In 1968, The Bilingual Education Act (BEA) passed with policymakers believing "…bilingual education would solve urban Latino poverty" (Sung, 2017, p.315). Urban Latino poverty had grown out of the loss of rural agricultural jobs, movement of Latinos to urban areas for manufacturing jobs, and the subsequent loss of those manufacturing jobs to industrial globalization (Sung, 2017). The BEA was an amendment to the Elementary and Secondary Education Act and provided federal grants to states and local education agencies with large populations of limited English-speaking students, especially where there are high concentrations of ELL students from low-income families, for supplemental programing (Bilingual Education Act, 1968). What constitutes a *large population* of limited English-speaking students or a *high concentration* of these students from low-income families is not further defined in the statute.

Latinx communities were hopeful the BEA would result in children being bilingual and bicultural, having pride in their participation in both Latinx and U.S. culture, and would lead to better economic and political advances for their people and communities (Garcia & Sung, 2018). By the 1974 reauthorization of the BEA a trend of conservatism had begun, and the language of the act shifted from bilingual education for bicultural pride to bilingual education as needed to complete the transition from home language to English (Garcia & Sung, 2018; MacDonald, 2004). A 1980's conservative backlash to more liberal immigration laws of the 1960s, which lead to increased immigration from Spanish-speaking, Asian, and non-English speaking countries, further shifted the language of the BEA and limited funding to the support of English-only programs (Garcia & Sung, 2018; MacDonald, 2004). The BEA was replaced by Title III of the No Child Left Behind Act in 2001 removing all references to bilingual education and replacing them with the term, English language acquisition (Garcia & Sung, 2018).

The idea of Latinx students as deficient, culturally, linguistically, and by extension intellectually, has long played a role in the underrepresentation of these students. Teachers who

choose to focus on student weaknesses, policies guided by deficit thinking, and historic social inequalities contribute to the underrepresentation of Latinx students with gifts and talents (Ford, 2014; Valencia, 2010). Frasier (1993) identified negative attitudes of educators towards non-majority students as a barrier to their identification, and recommended focusing "on common mental traits of giftedness in children" (p. 60) as part of the solution.

Title I Schools and Student Achievement

An increasing number of studies have analyzed the relationship of school poverty concentration, rather than family poverty to student achievement. Vanderhaar et al. (2006) showed concentration of poverty within a school was a stronger predictor of student academic failure than individual family poverty. In schools with high concentrations of poverty, high levels of teacher turnover is common leading to students being taught by less experienced and less effective teachers (Simon & Johnson, 2015). Teacher staffing issues and lack of resources negatively affect student achievement (Clotfelter et al., 2007; Myers et al., 2004). Not surprisingly, school poverty concentration was shown to be negatively associated with student motivation and academic attitudes (Battistich et al., 1995). Additionally, Kettler et al., (2015) observed the percentage of students from low-income families and the amount of money a school spends on gifted education were inversely related; the greater the concentration of poverty the less money spent on gifted education.

Title I is a federal program from the Elementary and Secondary Education Act that provides additional funding to public schools with high concentrations of students from low-income families (U.S. Department of Education, 2015). The funds must be used in a way that raises the achievement of low-achieving students, but they may also be used to address the goal of raising the achievement of all students. Examples of services include special pre-schools programs, after-school programs, and additional instruction in mathematics and/or reading (National Center for Education Statistics, n.d.b). A school qualifies to receive Title I funds when 40% or more of its students qualify for free or reduced-price meals (U.S. Department of Education, 2015). Student achievement is negatively affected by school poverty levels[1] greater

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[1] As measured by eligibility for the federal free and reduced-price meal program

than 40% (Vanderhaar et al., 2006). Therefore, we have included school Title I status in our analyses.

School Locale

Kettler et al. (2015) identified differences in funding and staff allocations for gifted education by locale in a study of 1,029 Texas school districts. Comparing schools in the four main locale categories (City, Suburb, Town, Rural), Rural schools provided a smaller proportion of staff, designated a smaller proportion of expenses, and spent less per-pupil on gifted education than all other locales, even though they spent more per-pupil in general. Compared to City and Suburb schools, Town schools allocated fewer staff to gifted education. Among City, Suburb and Town schools there were no effects from per-pupil spending or budget expenses for gifted. Gentry et al. (2019) found Latinx students had access to gifted identification, by attending schools that identify, at 1.05% the rate of all public school students. This greater percentage of access may be due in part to nearly 81% of Latinx students being educated in City and Suburb schools where there is greater funding and staffing.

Methods

What follows is a descriptive study to determine the extent to which Latinx students have access to identification, are identified proportionally with gifts and talents, and experience *missingness* from gifted education due to lack of access to identification and underidentification. Data were examined at the national and state levels, with a secondary purpose of investigating the identification of Latinx students with gifts and talents by school Title I status and locale (City, Suburb, Town, Rural). The final purpose of this study was to reveal patterns of underrepresentation that require further study. The themes and research questions which guided this inquiry are:

1. (access) To what extent do Latinx youth have access to being identified with gifts and talents in the United States and within the states?
2. (equity) To what extent are Latinx youth identified proportionally with gifts and talents? Further, how does school locale and Title I status affect proportional identification of Latinx youth with gifts and talents?

3. (missingness) To what extent are Latinx youth missing from identification as gifted and talented?

4. (next steps) What patterns exist in these data that warrant future research concerning access, identification, and (in)equity?

Data Sources

The Civil Rights Data Collection (CRDC) restricted use data files, collected by the Office of Civil Rights (OCR) for the years 2000, 2011-2012, 2013-2014, and 2015-2016 were used in these analyses. Data collected in these years are population data of all public schools, which allowed for complete analysis of Latinx youth in public schools. School locale codes, not available in the CRDC, were obtained using a cross-walk provided by the OCR by pairing the Common Core of Data (CCD) public files of matching years to the CRDC data sets.

The Common Core of Data (CCD), from the National Center for Education Statistic's, was used to investigate the effect of school location on the identification of Latinx youth with gifts and talents. School locale information, a combination of location relative to an urban area and size of the surrounding population, is collected by the CCD annually from all public schools. City and Suburb locales have three subdivisions related to size (large, midsize, small) and Town and Rural have three subdivisions related to distance from an urban area (fringe, distant, remote) (National Center for Education Statistics, n.d.a). For our analyses, the subdivisions were combined under the corresponding locale, resulting in four locales: City, Suburb, Town, and Rural. We focus most of our results on the 2015-2016 data as it is the most current, and little has changed across the years concerning access and equity.

Data Analyses

Schools were sorted by their Title I status and as with or without gifted identification. The general enrollment and gifted education enrollment for all students and for Latinx students was aggregated into the variables: Title I with gifted identification, Title I without gifted identification, Non-Title I with gifted identification, Non-Title I without gifted identification. The results were then reported nationally, then disaggregated by state to provide a more nuanced picture of access, equity, and missingness within each state and the District of Columbia. With

population data, all analyses are descriptive and provide a full picture concerning the extent of access, equity, and missingness for Latinx youth in the school categories.

Access. Enrollment, access, and identification (ID) of all students and Latinx students was examined by locale (City, Suburb, Town and Rural). This resulted in 24 possible categories from the combination of school Title I status (Non-Title I, Title I, Status not reported), gifted identification (ID GT, No ID GT), and locale (City, Suburb, Town, Rural, Locale not reported). In approximately 2% of schools nationally the variable locale was not reported, and in nearly 5% of schools nationally the variable Title I status was not reported. The data for these schools and students is excluded from calculations requiring the data from a missing variable. If a school did not identify students with gifts or talents, then none of the students had access to identification. Therefore, analyses of access to identification and equity in identification, only includes schools that identified students with gifts and talents. Schools without identification, and the students who attend them, are included in the analysis of missingness.

Equity. Equity in the representation of Latinx students identified with gifts and talents was analyzed using Representation Indices (RIs). To compute an RI the percentage of Latinx students identified among all identified students is divided by the percentage of Latinx students among all students enrolled. For example, if Latinx students comprised 10% of the students identified as gifted (GT) and 20% of the student enrollment, the RI would be 0.50 ($10 / 20 = 0.50$). This example RI (0.50) would indicate Latinx students were underidentified by 50%.

Missingness. Disproportionally low representation of a specific group of students among all those identified as gifted is underrepresentation (Ford, 2014). Underrepresentation results in students missing from identification. We use the term *missingness* in our analyses to refer to Latinx students with gifts and talents who either attended schools that did not identify students with gifts and talents, or who were underidentified in schools that identified students with gifts and talents.

Missingness of Latinx youth with gifts and talents was calculated for the nation and states using a multi-step process with lower boundary and upper boundary estimates used to quantify missingness. To calculate missingness, the lower boundary used the average percent of students identified nationally (and then in each state) multiplied by the number of students in schools that identify; whereas, the upper boundary used the larger percentage of students identified in Non-

Title I schools that identify multiplied by the number of students. The upper boundary, in effect, addressed the question of "What if all schools identified at the rate of Non-Title I schools?"

Thus, the lower boundary estimate of missing Latinx students in the nation was calculated by multiplying the number of Latinx students attending schools without identification (n=3,808,348) by the national average percentage identified, 9.57% (3,808,348 x 9.57% = 364,646). To this figure was added underidentified Latinx students, calculated by multiplying the number of Latinx students who attend schools that identify (n=9,219,809) by the national average percentage identified, 9.57% (9,219,809 x 9.57% = 882,789) and subtracting the number of Latinx youth identified with gifts and talents (n=588,891) in those schools (882,789 – 588,891 = 293,898). This total (364,646 + 293,898= 658,544) is the lower boundary estimate of missing Latinx youth with gifts and talents nationally.

The percentage of Latinx students with gifts and talents missing nationally at the lower boundary estimate was calculated by totaling the identified and missing students, then dividing the missing by the total and converting it to a percentage (i.e., 588,891 + 658,544 = 1,247,435 and 658,544/1,247,435 (100) = 52.79%). This process was repeated for each state, using the state's average percentage identified to calculate the lower boundary of missing Latinx youth and the percentage of those missing.

Gentry et al., (2019) found in most states a larger percentage of students in Non-Title I schools were identified with gifts and talents than students in Title I schools. Because of this, they concluded students who attend Title I schools were underidentified when compared with students attending more affluent schools. Following this reasoning, upper boundary estimates of missingness were calculated in the same manner as were lower boundary estimates, as described above, with one important change: the upper boundary calculations and percentages were computed using the percentage of students identified in the Non-Title I schools. For the nation this percentage was 13.46%. Estimating a lower boundary and upper boundary, provides a range of the number of missing students. This process was completed for each state using that state's percentage of students identified with gifts and talents in Non-Title I schools.

Results

We adopted and adapted the *four-fifths (80%) rule*, from the Equal Employment Opportunity Commission (EEOC) for our analysis as did Ford (2013) and Gentry et al. (2019).

The *four-fifths rule* sets a guideline in which selection rates less than *80% (four-fifths)* for members of a group, when compared to the selection rates of majority group members, has *adverse impact* for those non-majority group members (29 C.F.R. §1607.4, 2019). For our study we use the four-fifths rule in comparison to a standard of 100% (1.00), which would be proportional representation, rather than to the majority group. We did this for several reasons, First, the majority groups (i.e., White and Asian) varied in their representation indices from 1.00 to more than 4.00 across states and school types; second, using other race representation indices would result in variable targets; for example 80% of 2.00 is different than 80% of 1.00; and finally, using a standard sets a bar for proportional (not comparative) representation for each group. We note, for members of a racial group who are subjected to selection rates less than four-fifths the standard, this is a type of *adverse impact* defined as *discrimination* (29 C.F.R. §1607.3, 2019).

States, Title I Status, and Locales of Schools Where Latinx Youth are Educated

Nationally in 2015-2016 almost 26% of public school students were Latinx (Table 8). Table 8 shows states in order of largest to smallest percentage of Latinx students and reveals that 90% of Latinx students are educated in 26 states. The states in bold typeface mandate gifted education; only 12 states did not mandate gifted education. Nationally, almost 79% of Latinx youth attended Title I schools. Among all the states, five states educated a majority of Latinx youth in Non-Title I schools (UT, **VA,** WY, **SC, WV**), and in Colorado Latinx students were equally distributed across Title I and Non-Title I schools. Nationally, 41% of Latinx students attended City schools, and 39% attended Suburb schools. In 26 states the largest percentage of Latinx students were in City schools, in 18 states the largest percentage were in Suburb schools. Only two states educated the largest percentage of their Latinx students in Town schools (WY & ND), and five states educated the largest percentage in Rural schools (**AL, MS, ME,** VT, & **WV**). Additionally, Mississippi, Maine, Vermont and West Virginia had the smallest percentages of Latinx youth enrolled.

Table 8. *Latinx Student Enrollment, by School Title I Status and Locale in States and Nation for 2015-2016*

State	N of Latinx Students	% of State Enrollment	National Cumulative %	Non-Title I %	Title I %	City %	Suburb %	Town %	Rural %
NM	207,162	61.08	1.59	5.77	90.35	35.11	14.87	24.67	23.34
CA	3,382,639	53.94	27.55	14.26	79.21	40.56	43.37	6.14	4.95
TX	2,776,400	52.36	48.86	8.98	90.68	49.44	28.16	9.55	12.72
AZ	504,233	44.52	52.74	3.27	95.29	56.71	24.75	10.81	7.60
NV	195,981	41.64	54.24	26.18	73.61	49.10	41.30	5.29	4.25
CO	300,251	33.38	56.54	51.88	48.02	48.05	33.22	9.71	8.92
FL	878,683	31.61	63.29	11.20	88.72	20.99	67.27	3.53	8.18
NY	703,077	25.79	68.69	10.05	32.05	65.93	27.17	3.11	2.71
IL	517,100	25.51	72.65	9.83	88.06	43.59	50.36	3.46	2.49
NJ	348,680	25.44	75.33	15.72	83.55	18.19	76.08	1.89	3.22
RI	34,030	24.04	75.59	4.21	94.58	52.92	44.74	0.00	1.25
CT	123,328	23.01	76.54	35.52	63.93	50.69	42.57	2.69	3.33
WA	247,487	22.60	78.44	29.78	69.98	33.23	36.61	17.99	11.94
OR	129,030	22.50	79.43	46.60	52.61	35.98	28.61	26.09	8.76
KS	92,789	18.90	80.14	8.68	89.48	41.23	11.48	29.31	16.23
NE	57,152	18.03	80.58	41.46	58.38	48.51	14.09	27.06	10.33
MA	171,251	17.97	81.89	19.07	79.33	35.29	60.16	0.83	2.79
ID	50,934	17.21	82.28	10.12	89.49	15.88	30.92	28.46	24.52
NC	252,483	16.27	84.22	16.22	83.71	34.53	21.93	10.22	33.28
UT	107,681	16.20	85.05	56.31	43.55	29.08	57.94	7.28	5.56
DE	22,068	15.88	85.22	21.37	76.68	11.35	54.78	15.35	16.05
OK	110,292	15.85	86.07	7.90	91.92	46.76	16.62	20.73	15.73
MD	141,341	15.82	87.15	26.40	73.50	19.00	73.66	1.63	5.63
DC	12,719	15.45	87.25	17.13	82.85	99.98	0.00	0.00	0.00
GA	256,676	14.53	89.22	28.49	71.02	15.37	58.24	7.25	18.49
VA	184,849	14.39	90.64	64.55	35.18	22.19	61.62	3.29	12.63
WY	12,768	13.48	90.73	53.31	46.27	29.61	3.24	48.86	18.22
AR	59,617	12.30	91.19	6.84	91.18	47.47	8.48	19.25	22.94
HI	22,007	12.05	91.36	40.29	59.71	16.47	49.33	23.92	10.27
WI	98,360	11.33	92.12	32.33	67.52	52.09	22.95	14.14	10.76
IN	114,120	11.05	92.99	12.45	87.44	41.50	33.06	11.64	13.70
PA	179,179	10.39	94.37	11.30	88.05	52.18	37.01	2.57	7.63
IA	51,283	10.23	94.76	16.71	83.10	40.87	7.72	32.98	18.24
TN	89,684	8.98	95.45	9.08	90.70	51.39	17.80	14.47	16.29
MN	76,656	8.70	96.04	44.28	55.49	28.95	38.02	19.91	12.19

Table 8. continued

State	N of Latinx Students	% of State Enrollment	National Cumulative %	Non-Title I %	Title I %	City %	Suburb %	Town %	Rural %
SC	64,202	8.38	96.53	53.51	46.19	24.10	40.48	9.38	25.87
MI	111,530	7.22	97.39	29.07	70.41	36.56	35.83	10.54	15.11
AL	50,217	6.74	97.77	29.90	69.16	26.53	21.08	20.09	31.23
AK	8,797	6.67	97.84	43.48	56.03	60.21	5.57	19.22	14.71
KY	41,045	5.97	98.15	8.42	91.55	32.51	24.05	22.35	21.08
LA	42,695	5.91	98.48	7.84	90.86	35.00	39.57	9.22	15.67
MO	54,325	5.85	98.90	17.25	81.31	31.39	32.81	18.73	15.67
NH	9,822	5.38	98.98	12.02	87.90	56.40	25.74	6.56	11.23
SD	6,950	5.07	99.03	23.31	72.42	44.07	1.84	25.50	24.32
OH	88,559	5.04	99.71	14.57	84.10	30.74	45.55	11.24	11.91
ND	4,700	4.26	99.74	44.51	55.49	22.77	9.30	34.94	33.00
MT	5,979	4.06	99.79	8.16	91.82	37.51	2.83	33.37	26.28
MS	18,166	3.70	99.93	27.38	72.41	15.31	21.27	26.69	36.52
ME	3,482	1.96	99.96	9.28	90.55	26.74	16.60	18.58	38.08
VT	1,379	1.66	99.97	33.28	66.72	11.52	17.37	37.35	57.88
WV	4,319	1.55	100.00	63.21	36.74	25.03	22.71	20.38	31.86
Nation	13,028,157	25.82	100.00	16.14	78.60	41.44	39.27	8.34	9.38

Note. States are ordered from the largest percentage of Latinx students in the state to the least. Percentages may not equal 100% as a few schools (<5%) in each state did not identify Title I status or Locale, and in New York 35.86% of schools did not identify Title I status. States in bold font have mandates regarding the identification and/or service of students with gifts and talents.

Access to Identification and Identification Rates

From 2000 through 2015-2016, the percentage of Latinx students enrolled in the nation grew from 16.21% to 25.82%, and the percentage of those students with access to identification, by attending schools that identify, dropped from 75.94% in 2000 to 70.77% in 2015-2016 as shown in Table 9. The percentage of Latinx students with gifts and talents identified increased from 4.80% in 2000 to 6.39% in 2015-2016. Smaller percentage of Latinx students were identified in Title I schools (6.10%) than in Non-Title 1 schools (7.71%) with little changes between 2011-2012 and 2015-2016. As shown in the ratio of Title I to Non-Title I schools, this means Latinx students attending Title I schools are identified at only 0.79 the rate of those attending Non-Title I schools.

Table 9. *Latinx Students With Access to Identification as Gifted for 2000, 2011-2012, 2013-2014, and 2015-2016 in the Nation.*

Year	Students Enrolled	Students in Schools that Identify	Students Identified in Schools that ID	Students Identified in Non-Title I Schools that ID	Students Identified in Title I Schools that ID	Ratio of ID in Title I Schools Compared to Non-Title I Schools
2015-2016	13,028,157	9,219,809	588,891	119,165	462,505	
	25.82%	70.77%	6.39%	7.71%	6.10%	0.79
2013-2014	12,370,873	8,802,224	610,267	120,032	489,252	
	24.78%	71.15%	6.93%	8.37%	6.65%	0.80
2011-2012	11,702,426	8,471,499	538,608	174,610	357,017	
	23.57%	72.39%	6.36%	7.03%	6.08%	0.86
2000	7,429,152	5,641,725	270,890	N/A	N/A	
	16.21%	75.94%	4.80%			

Note. Total students identified may not equal students in Title I and Non-Title I schools because a few schools in each state did not designate Title I status. School Title I status was not available for 2000.

In Table 10, the states are ordered alphabetically, and the first two columns display the percentage of students with access to identification, meaning these students attend schools that identify youth with gifts and talents. We used a guideline of 60% or greater as acceptable percentages for access to identification, as outlined by Gentry et al. (2019). Although nationally, more than 70% of Latinx youth had access to identification, in 15 states fewer than 60% had access (**CT, DE, HI, ID, IL**, MI, **MT**, ND, NH, **NJ**, NY, SD, **TN**, UT, & WY), even in eight states (in bold) which had mandates for gifted education. The ratio in the last column of Table 10 shows how the access of Latinx students compares with that of all students. Values above 0.95 are considered equal access, with 11 states (**CT, HI, IL, KS, KY,** MI, NH, **NJ,** NY, **PA,** WY) having unequal access based on this criterion, and seven of these states (in bold) had mandates for gifted education This is a serious finding as equitable identification is problematic if students do not have access, for example, in New York, Latinx students have only 71% of the access as other students, meaning they are far more likely to attend a school that identifies no children with gifts and talents than other students.

Table 10. *Percentage of Latinx Students With Access, Percentage of All Students with Access, and Ratio of Latinx to All Students for 2015-2016.*

State	% Latinx Students in Schools that Identify	% All Students in Schools that Identify	Ratio of Latinx to All in Schools that Identify
AK	88.13	70.88	1.24
AL	74.32	74.45	1.00
AR	86.98	88.55	0.98
AZ	67.60	63.30	1.07
CA	69.80	67.78	1.03
CO	91.70	93.38	0.98
CT	**30.92**	**33.01**	***0.94**
~~DC~~	~~0.00~~	~~0.00~~	~~0.00~~
DE	**38.97**	**33.17**	1.17
FL	**89.43**	87.86	1.02
GA	97.21	95.61	1.02
HI	**59.08**	63.78	***0.93**
IA	92.54	93.90	0.99
ID	**53.72**	**52.25**	1.03
IL	**23.22**	**25.76**	***0.90**
IN	84.56	84.53	1.00
KS	76.24	85.27	***0.89**
KY	83.49	92.97	***0.90**
LA	91.91	86.70	1.06
~~MA~~	~~4.92~~	~~4.16~~	~~1.18~~
MD	79.95	69.46	1.15
ME	80.90	79.64	1.02
MI	**8.49**	**10.20**	***0.83**
MN	60.32	53.60	1.13
MO	76.17	70.51	1.08
MS	77.77	71.57	1.09
MT	**56.97**	**52.46**	1.09
NC	95.11	92.88	1.02
ND	**29.85**	**29.57**	1.01
NE	84.87	83.19	1.02
NH	**6.50**	**9.24**	***0.70**
NJ	**41.69**	**50.77**	***0.82**
NM	85.97	86.31	1.00
NV	93.72	90.29	1.04

Table 10. continued

State	% Latinx Students in Schools that Identify	% All Students in Schools that Identify	Ratio of Latinx to All in Schools that Identify
NY	**8.07**	**11.38**	***0.71**
OH	65.09	68.60	0.95
OK	93.04	92.45	1.01
OR	78.14	81.96	0.95
PA	68.51	80.82	***0.85**
~~RI~~	~~0.12~~	~~1.09~~	~~0.11~~
SC	90.65	90.11	1.01
SD	**38.13**	**28.94**	1.32
TN	**54.91**	**54.03**	1.02
TX	92.19	93.24	0.99
UT	**41.76**	**36.81**	1.13
VA	91.13	93.08	0.98
~~VT~~	~~0.65~~	~~2.37~~	~~0.27~~
WA	72.66	72.16	1.01
WI	66.97	60.90	1.10
WV	74.07	74.65	0.99
WY	**45.12**	**49.99**	***0.90**
Nation	70.77	67.38	1.05

Note. No students in the District of Columbia, and less than 5% of all students in Massachusetts, Rhode Island, and Vermont have access to identification rendering calculations meaningless, therefore these states have been crossed out, but the information is included for reference. States in bold font have mandates regarding the identification and/or service of students with gifts and talents. Percentages in bold font are below 60%. Ratios in bold with * are below 0.95 and indicate unequal access for Latinx students.

Nationally, an average of 6.39% Latinx youth with gifts and talents were identified in schools where they had access to identification (Table 11). Among the states, the average percentage of Latinx youth identified varied widely, ranging from 1.07% in Tennessee to 17.41% in Maryland. The identification percentages of Latinx youth in Non-Title I and Title I schools are reported separately because Gentry et al. (2019) found Non-Title I schools identified a larger percentage of students than did Title I schools. The national Non-Title I school average percentage of Latinx youth identified was 7.71% with state averages ranging from 1.36% (WV) to 25.79% (MD). Among Title I schools the average percentage of Latinx youth identified nationally was 6.10%, with state averages ranging from 0.70% (WV) to 14.48% (MD). The ratio

of Title I to Non-Title I schools provides information on how different the percentages are. If the ratio is 0.95 or greater, then the percentages identified between the school types are similar (within 5% or less); if the ratio is less than 0.80 significantly fewer students are identified in Title I schools than Non-Title I schools, and this is the case for most schools as indicated by bold font. The smaller the ratio, the worse the inequity.

Table 11. *Latinx Students With Access to Identification, the Percent and Number Identified With Gifts and Talents in the State, the Percent and Number Identified in Non-Title I Schools, and the Percent and Number Identified in Title I Schools, With the Ratio of Identification of Latinx Students in Title I schools to Identification in Non-Title I Schools, in 2015-2016.*

State	Students With Access to Identification	Students Identified in Schools that Identify		Students Identified Non-Title I Schools that Identify		Students Identified in Title I Schools that Identify		Ratio of ID in Title I Schools to ID in Non-Title I Schools
	N	%	N	%	N	%	N	
AK	7,753	4.53	351	4.65	159	4.45	192	0.96
AL	37,320	5.01	1,869	5.82	534	4.63	1,281	0.80
AR	51,854	6.23	3,229	4.73	134	6.34	3,076	1.34
AZ	340,838	4.78	16,294	3.65	27	4.81	16,165	1.32
CA	2,361,122	7.42	75,187	8.42	31,321	7.16	139,475	0.85
CO	275,316	4.56	12,553	4.94	7,371	4.10	5,177	0.83
CT	38,131	3.49	1,332	5.35	672	2.60	660	**0.49**
DC	0	0.00	0	0.00	0	0.00	0	0.00
DE	8,600	3.63	312	4.93	48	3.46	264	**0.70**
FL	785,767	5.90	46,396	8.60	7,238	5.58	39,135	**0.65**
GA	249,510	5.49	13,694	8.44	6,050	4.29	7,624	**0.51**
HI	13,001	2.39	311	2.17	150	2.64	161	1.22
IA	47,456	4.24	2,012	5.43	426	4.00	1,586	**0.74**
ID	27,360	1.64	448	2.34	57	1.57	391	**0.67**
IL	120,076	8.72	10,475	7.69	1,503	9.23	8,939	1.20
IN	96,497	8.26	7,975	13.35	1,606	7.54	6,362	**0.56**
KS	70,738	1.22	863	2.05	158	1.12	705	**0.55**
KY	34,268	7.06	2,418	10.36	223	6.83	2,195	**0.66**
LA	39,241	3.40	1,334	8.93	290	2.89	1,027	**0.32**
MA	8,420	14.85	1,250	11.70	82	14.86	1,141	1.27
MD	113,005	17.41	19,672	25.79	7,534	14.48	12,129	**0.56**
ME	2,817	3.76	106	1.75	5	4.00	101	2.28

Table 11. continued

State	Students With Access to Identification		Students Identified in Schools that Identify		Students Identified Non-Title I Schools that Identify		Students Identified in Title I Schools that Identify		Ratio of ID in Title I Schools to ID in Non-Title I Schools
	N	%	N	%	N	%	N	
MI	9,468	6.24	591	8.86	386	4.01	205	**0.45**
MN	46,242	9.52	4,401	7.91	1,417	10.55	2,984	1.33
MO	41,378	2.95	1,219	5.07	374	2.46	827	**0.49**
MS	14,128	7.04	994	8.54	242	6.68	752	**0.78**
MT	3,406	2.61	89	2.58	11	2.62	78	1.02
NC	240,132	5.16	12,390	8.31	3,262	4.54	9,128	**0.55**
ND	1,403	3.35	47	5.05	27	2.30	20	**0.46**
NE	48,504	6.91	3,354	8.64	1,684	5.76	1,670	**0.67**
NH	638	5.96	38	7.09	9	5.68	29	0.80
NJ	145,360	7.46	10,843	7.87	2,220	7.24	8,473	0.92
NM	178,093	3.96	7,056	8.07	931	3.65	5,905	**0.45**
NV	183,674	4.03	7,397	3.98	1,705	4.04	5,692	1.02
NY	56,764	8.19	4,651	5.05	415	9.51	2,407	1.88
OH	57,645	3.89	2,243	6.12	547	3.50	1,691	**0.57**
OK	102,616	9.01	9,247	15.46	1,206	8.47	8,030	**0.55**
OR	100,828	2.74	2,759	3.42	1,810	1.96	932	**0.57**
PA	122,752	1.59	1,957	2.34	429	1.46	1,526	**0.63**
RI	~~42~~	~~7.14~~	~~3~~	0.00	0	11.11	3	0.00
SC	58,199	9.64	5,608	12.88	4,100	5.69	1,493	**0.44**
SD	2,650	1.43	38	2.39	24	0.85	14	**0.36**
TN	49,244	1.07	527	2.27	114	0.93	412	**0.41**
TX	2,559,469	6.58	68,406	7.19	16,558	6.52	151,635	0.91
UT	44,968	9.58	4,310	10.81	2,746	7.99	1,564	**0.74**

Table 11. continued

State	Students With Access to Identification N	Students Identified in Schools that Identify %	N	Students Identified Non-Title I Schools that Identify %	N	Students Identified in Title I Schools that Identify %	N	Ratio of ID in Title I Schools to ID in Non-Title I Schools
VA	168,445	8.45	14,241	10.13	10,572	5.68	3,639	**0.56**
~~VT~~	~~9~~	~~0.00~~	~~0~~	~~0.00~~	~~0~~	~~0.00~~	~~0~~	~~0.00~~
WA	179,826	2.55	4,586	2.76	1,466	2.46	3,118	0.89
WI	65,876	5.48	3,608	5.61	1,179	5.41	2,428	0.97
WV	3,199	1.09	35	1.36	26	0.70	9	**0.51**
WY	5,761	2.99	172	3.79	117	2.06	55	**0.54**
Nation	9,219,809	6.39	588,891	7.71	119,165	6.10	462,505	**0.79**

Note: States in bold font have mandates regarding the identification and/or service of students with gifts and talents. Ratios in bold font are below 0.80 and indicate failing equity. No students in the District of Columbia, and less than 5% of all students in Massachusetts, Rhode Island, and Vermont have access to identification rendering calculations meaningless, therefore these states have been crossed out but the information is included for reference.

(In)Equity of Access and Identification

The national ratio of identification in Title I schools compared with identification in Non-Title I schools shown in Table 9, was at its lowest in 2015-2016 at 0.79. This is just below the four-fifths guideline and has declined since 2011-2012 (0.86). Table 11 offers an analysis of the ratio comparing identification percentages between Title I and Non-Title I schools for each state. In 29 of the 47 states with meaningful data sets, the ratio of the percentage of Latinx students identified in Title I schools compared to the percentage identified in Non-Title I schools was below 0.80 (the four-fifths threshold), and therefore showed inequity in the identification of Latinx youth with gifts and talents in Title I schools. Among the 18 states with a ratio indicating equity of identification between Title I and Non-Title I schools, eight were among the top ten states with the largest percentage of Latinx children in their overall school enrollment (**AZ,** CA, **CO, IL, NJ, NV,** NY, & **TX).**

As shown in Table 11, the percentages of Latinx students identified in each state varied widely. In addition to this, not all states had mandates for gifted education, not all mandates outlined identification and/or services for students, and the funding of gifted education ranged from none to fully funded regardless of a state mandate. Table 12 provides a comparison of the percentages of Latinx students identified with gifts and talents and the percentages of all students identified. Using the four-fifths rule, an equitable ratio between these percentages is 0.80 or greater. Only Florida and Texas had equitable ratios for average percentage of Latinx students identified compared to the percentage of all students identified. Among Non-Title I schools, only Louisiana and Maryland had equitable ratios of identification for Latinx youth with gifts and talents. Latinx youth in Title I schools had equity of identification percentages in six states (CA, **CO, FL, NV, TX,** & UT). Of the 141 ratios in Table 12 (DC, MA, RI & VT excluded due to fewer than 5% of students with access to identification), only 10 ratios met the four-fifths rule guideline for equitable identification percentages of Latinx students when compared to the identification percentages of all students overall, in Non-Title I schools, and in Title I schools . These 10 ratios are designated with an asterisk in Table 12. These findings lead us to conclude that with very few exceptions, Latinx students are underidentified across all states in all school.

Table 12. *Percentage of Latinx Students and All Students Identified With Ratios of Latinx to All Students in Schools With Access, Non-Title I Schools With Access, and Title I Schools With Access to Identification, 2015-2016.*

State	Students Identified in Schools With Access		Ratio of Latinx Student ID to All Student ID in Schools With Access	Students Identified in Non-Title I Schools With Access		Ratio of Latinx Student ID to All Student ID in Non-Title I Schools With Access	Students Identified in Title I Schools With Access		Ratio of Latinx Student ID to All Student ID in Title I Schools With Access
	% Latinx	% All		% Latinx	% All		% Latinx	% All	
AK	4.53	6.84	**0.66**	4.65	7.99	**0.58**	4.45	5.64	**0.79**
AL	5.01	9.32	**0.54**	5.82	12.76	**0.46**	4.63	7.83	**0.59**
AR	6.23	10.76	**0.58**	4.73	11.91	**0.40**	6.34	10.67	**0.59**
AZ	4.78	7.40	**0.65**	3.65	5.77	**0.63**	4.81	7.45	**0.65**
CA	7.42	10.00	**0.74**	8.42	12.71	**0.66**	7.16	8.81	*0.81
CO	4.56	8.22	**0.55**	4.94	9.61	**0.51**	4.10	4.51	*0.91
CT	3.49	6.73	**0.52**	5.35	8.74	**0.61**	2.60	4.83	**0.54**
~~DC~~	~~0.00~~	~~0.00~~	~~0.00~~	~~0.00~~	~~0.00~~	~~0.00~~	~~0.00~~	~~0.00~~	~~0.00~~
DE	3.63	7.84	**0.46**	4.93	10.94	**0.45**	3.46	7.05	**0.49**
FL	5.90	6.75	*0.87	8.60	11.49	**0.75**	5.58	5.92	*0.94
GA	5.49	11.21	**0.49**	8.44	17.49	**0.48**	4.29	7.37	**0.58**
HI	2.39	4.36	**0.55**	2.17	3.63	**0.60**	2.64	5.13	**0.52**
IA	4.24	9.36	**0.45**	5.43	11.87	**0.46**	4.00	8.09	**0.50**
ID	1.64	4.63	**0.35**	2.34	5.51	**0.42**	1.57	4.43	**0.35**
IL	8.72	13.20	**0.66**	7.69	15.49	**0.50**	9.23	12.83	**0.72**
IN	8.26	14.54	**0.57**	13.35	21.42	**0.62**	7.54	12.48	**0.60**
KS	1.22	3.02	**0.40**	2.05	4.12	**0.50**	1.12	2.68	**0.42**
KY	7.06	14.83	**0.48**	10.36	18.54	**0.56**	6.83	14.48	**0.47**
LA	3.40	4.73	**0.72**	8.93	9.89	*0.90	2.89	4.00	**0.72**
~~MA~~	~~14.85~~	~~16.99~~	~~0.87~~	~~11.70~~	~~19.18~~	~~0.61~~	~~14.86~~	~~15.70~~	~~0.95~~

Table 12. continued

State	Students Identified in Schools With Access		Ratio of Latinx Student ID to All Student ID in Schools With Access	Students Identified in Non-Title I Schools With Access		Ratio of Latinx Student ID to All Student ID in Non-Title I Schools With Access	Students Identified in Title I Schools With Access		Ratio of Latinx Student ID to All Student ID in Title I Schools With Access
	% Latinx	% All		% Latinx	% All		% Latinx	% All	
MD	17.41	24.37	**0.71**	25.79	30.12	*0.86	14.48	18.70	**0.77**
ME	3.76	6.74	**0.56**	1.75	7.61	**0.23**	4.00	6.63	**0.60**
MI	6.24	12.47	**0.50**	8.86	16.12	**0.55**	4.01	7.93	**0.51**
MN	9.52	14.76	**0.64**	7.91	15.50	**0.51**	10.55	13.91	**0.76**
MO	2.95	5.58	**0.53**	5.07	7.48	**0.68**	2.46	4.98	**0.49**
MS	7.04	9.44	**0.74**	8.54	12.22	**0.70**	6.68	8.79	**0.76**
MT	2.61	6.40	**0.41**	2.58	6.19	**0.42**	2.62	6.43	**0.41**
NC	5.16	11.85	**0.44**	8.31	19.54	**0.43**	4.54	9.25	**0.49**
ND	3.35	8.76	**0.38**	5.05	10.06	**0.50**	2.30	7.54	**0.31**
NE	6.91	13.57	**0.51**	8.64	17.38	**0.50**	5.76	7.29	**0.79**
NH	5.96	11.94	**0.50**	7.09	12.16	**0.58**	5.68	11.88	**0.48**
NJ	7.46	11.50	**0.65**	7.87	12.14	**0.65**	7.24	11.15	**0.65**
NM	3.96	5.55	**0.71**	8.07	11.77	**0.69**	3.65	4.82	**0.76**
NV	4.03	5.78	**0.70**	3.98	6.92	**0.57**	4.04	5.03	*0.80
NY	8.19	14.11	**0.58**	5.05	10.73	**0.47**	9.51	13.03	**0.73**
OH	3.89	9.09	**0.43**	6.12	13.07	**0.47**	3.50	7.88	**0.44**
OK	9.01	15.04	**0.60**	15.46	22.56	**0.69**	8.47	14.02	**0.60**
OR	2.74	7.05	**0.39**	3.42	9.19	**0.37**	1.96	3.15	**0.62**
PA	1.59	4.31	**0.37**	2.34	5.96	**0.39**	1.46	3.73	**0.39**
~~RI~~	~~7.14~~	~~9.61~~	~~0.74~~	~~0.00~~	~~4.12~~	~~0.00~~	~~11.11~~	~~13.67~~	~~0.81~~
SC	9.64	17.09	**0.56**	12.88	22.28	**0.58**	5.69	8.55	**0.66**
SD	1.43	6.77	**0.21**	2.39	8.75	**0.27**	0.85	4.97	**0.17**

Table 12. continued

State	Students Identified in Schools With Access		Ratio of Latinx Student ID to All Student ID in Schools With Access	Students Identified in Non-Title I Schools With Access		Ratio of Latinx Student ID to All Student ID in Non-Title I Schools With Access	Students Identified in Title I Schools With Access		Ratio of Latinx Student ID to All Student ID in Title I Schools With Access
	% Latinx	% All		% Latinx	% All		% Latinx	% All	
TN	1.07	2.82	**0.38**	2.27	5.66	**0.40**	0.93	2.20	**0.42**
TX	6.58	8.19	*0.80	7.19	12.10	**0.59**	6.52	7.24	*0.90
UT	9.58	12.68	**0.76**	10.81	14.72	**0.73**	7.99	7.37	*1.08
VA	8.45	13.42	**0.63**	10.13	15.98	**0.63**	5.68	7.24	**0.78**
~~VT~~	~~0.00~~	~~6.15~~	~~0.00~~	~~0.00~~	~~0.62~~	~~0.00~~	~~0.00~~	~~8.83~~	~~0.00~~
WA	2.55	6.49	**0.39**	2.76	6.86	**0.40**	2.46	6.34	**0.39**
WI	5.48	8.55	**0.64**	5.61	9.40	**0.60**	5.41	7.84	**0.69**
WV	1.09	2.57	**0.43**	1.36	3.13	**0.44**	0.70	1.72	**0.41**
WY	2.99	7.76	**0.38**	3.79	8.51	**0.44**	2.06	6.52	**0.32**
Nation	6.39	9.57	**0.67**	7.71	13.46	**0.57**	6.10	7.86	**0.78**

Note. States in bold font have mandates regarding the identification and/or service of students with gifts and talents. Ratios in bold font are below 0.80 and indicate failing equity. Ratios with * are at or above 0.80 and indicate passing equity. No students in the District of Columbia, and less than 5% of all students in Massachusetts, Rhode Island, and Vermont have access to identification rendering calculations meaningless, therefore these states have been crossed out, with information included for reference only.

(In)Equity of Representation

   Representation indices were used to compare the percentage of Latinx students among students identified with gifts and talents, to the percentage of Latinx students among enrolled students. Doing so, provides a metric of equity. Table 13 displays the RIs for Latinx youth in a state overall, by school Title I status, and by school locale. Again, using the four-fifths rule and a standard of an RI of 0.80 as minimum equity, only two states had equitable RIs for Latinx youth overall (**FL** and **TX**)**.** RIs in Title I schools were equitable for Latinx students in six states (CA, **CO**, **FL**, **NV**, **TX**, & UT), the first five states were among the top ten states for percentage of Latinx students. Only two states had equitable RIs in Non-Title I schools (**MD** and **LA**). Among the different locales equitable RIs for Latinx students were in Florida and Texas in City schools; Florida, Utah, and Wisconsin in Suburb schools; California, Louisiana, Mississippi, and New Hampshire in Town schools; and Arizona, Louisiana, and Maryland in Rural schools. Of the 336 RIs in Table 13, only 22 were equitable for Latinx youth with gifts and talents. These are designated with an asterisk in the table.

Table 13. *Representation Indices Overall, by Title I Status and by Locale for Latinx Students Identified With Gifts and Talents, 2015-2016.*

State	Latinx Students Identified	Overall RI	Non-Title I RI	Title I RI	City RI	Suburb RI	Town RI	Rural RI
AK	351	**0.66**	**0.58**	**0.79**	**0.60**	**0.67**	**0.72**	**0.61**
AL	1,869	**0.54**	**0.46**	**0.59**	**0.62**	**0.45**	**0.52**	**0.54**
AR	3,229	**0.58**	**0.40**	**0.59**	**0.54**	**0.46**	**0.58**	**0.63**
AZ	16,294	**0.65**	**0.63**	**0.65**	**0.65**	**0.58**	**0.62**	*0.82
CA	175,187	**0.74**	**0.66**	*0.81	**0.74**	**0.73**	*0.80	**0.76**
CO	12,553	**0.55**	**0.51**	*0.91	**0.63**	**0.46**	**0.44**	**0.46**
CT	1,332	**0.52**	**0.61**	**0.54**	**0.60**	**0.45**	**0.36**	**0.51**
~~DC~~	~~0~~	~~0.00~~	~~0.00~~	~~0.00~~	~~0.00~~	~~0.00~~	~~0.00~~	~~0.00~~
DE	312	**0.46**	**0.45**	**0.49**	**0.55**	**0.51**	**0.31**	**0.32**
FL	46,396	*0.87	**0.75**	*0.94	*0.81	*0.89	**0.79**	**0.66**
GA	13,694	**0.49**	**0.48**	**0.58**	**0.51**	**0.45**	**0.49**	**0.53**
HI	311	**0.55**	**0.60**	**0.52**	**0.54**	**0.55**	**0.54**	**0.46**
IA	2,012	**0.45**	**0.46**	**0.50**	**0.49**	**0.41**	**0.40**	**0.43**
ID	448	**0.35**	**0.42**	**0.35**	**0.28**	**0.43**	**0.32**	**0.41**
IL	10,475	**0.66**	**0.50**	**0.72**	**0.70**	**0.68**	**0.29**	**0.31**

Table 13. continued

State	Latinx Students Identified	Overall RI	Non-Title I RI	Title I RI	City RI	Suburb RI	Town RI	Rural RI
IN	7,975	0.57	0.62	0.60	0.52	0.62	0.44	0.56
KS	863	0.40	0.50	0.42	0.36	0.36	0.39	0.55
KY	2,418	0.48	0.56	0.47	0.43	0.50	0.49	0.53
LA	1,334	0.72	*0.90	0.72	0.62	0.64	*0.97	*0.85
MA	1,250	0.87	0.61	0.95	0.85	0.51	0.00	1.04
MD	19,672	0.71	*0.86	0.77	0.62	0.72	0.74	*0.80
ME	106	0.56	0.23	0.60	0.56	0.46	0.39	0.70
MI	591	0.50	0.55	0.51	0.44	0.54	0.53	0.38
MN	4,401	0.64	0.51	0.76	0.79	0.50	0.36	0.71
MO	1,219	0.53	0.68	0.49	0.67	0.47	0.26	0.57
MS	994	0.74	0.70	0.76	0.69	0.71	*0.95	0.65
MT	89	0.41	0.42	0.41	0.37	0.12	0.39	0.64
NC	12,390	0.44	0.43	0.49	0.40	0.39	0.57	0.47
ND	47	0.38	0.50	0.31	0.51	0.47	0.31	0.35
NE	3,354	0.51	0.50	0.79	0.51	0.67	0.48	0.46
NH	38	0.50	0.58	0.48	0.00	0.47	*0.99	0.47
NJ	10,843	0.65	0.65	0.65	0.61	0.65	0.49	0.43
NM	7,056	0.71	0.69	0.76	0.70	0.79	0.65	0.71
NV	7,397	0.70	0.57	*0.80	0.65	0.77	0.51	0.68
NY	4,651	0.58	0.47	0.73	0.53	0.56	0.48	0.66
OH	2,243	0.43	0.47	0.44	0.62	0.43	0.43	0.41
OK	9,247	0.60	0.69	0.60	0.64	0.63	0.64	0.60
OR	2,759	0.39	0.37	0.62	0.38	0.33	0.52	0.41
PA	1,957	0.37	0.39	0.39	0.41	0.34	0.52	0.41
RI	3	0.74	0.00	0.81	0.00	1.16	0.00	0.00
SC	5,608	0.56	0.58	0.66	0.58	0.50	0.59	0.61
SD	38	0.21	0.27	0.17	0.22	0.00	0.29	0.19
TN	527	0.38	0.40	0.42	0.37	0.32	0.30	0.51
TX	168,406	*0.80	0.59	*0.90	*0.86	0.68	0.75	0.75
UT	4,310	0.76	0.73	*1.08	0.54	*0.88	0.39	0.57
VA	14,241	0.63	0.63	0.78	0.59	0.59	0.53	0.61
VT	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WA	4,586	0.39	0.40	0.39	0.35	0.47	0.34	0.41
WI	3,608	0.64	0.60	0.69	0.61	*0.97	0.36	0.43

Table 13. continued

State	Latinx Students Identified	Overall RI	Non-Title I RI	Title I RI	City RI	Suburb RI	Town RI	Rural RI
WV	35	**0.43**	**0.44**	**0.41**	**0.42**	**0.48**	**0.51**	**0.17**
WY	172	**0.38**	**0.44**	**0.32**	**0.39**	**0.30**	**0.36**	**0.43**
Nation	588,891	**0.67**	**0.57**	**0.78**	**0.71**	**0.63**	**0.55**	**0.57**

Note. States in bold font have mandates regarding the identification and/or service of students with gifts and talents. RIs in bold font are below 0.80 and indicate failing equity. RIs with * are at or above 0.80 and indicate passing equity. No students in the District of Columbia, and less than 5% of all students in Massachusetts, Rhode Island, and Vermont have access to identification rendering calculations meaningless, therefore these states have been crossed out, with information included only for reference.

Figure 6 visually depicts RI scores across the country. It is important to note that an RI of 0.80, although passing, is still only 80% equitable. Gentry et al. (2019) graded each state on equity overall and by Title I school status, with encouragement to schools to put measures in place to eliminate inequity and target equitable representation. They gave an RI of 0.80 a "D," noting that while "passing," such an RI was not equitable. An RI of 0.80 is clearly better than one of 0.40, but still has much room for improvement.

LATINX IN ALL SCHOOLS

							National 0.67				ME 0.56

WA 0.39, MT 0.41, ND 0.38, MN 0.64, OR 0.39, ID 0.35, WI 0.64, NY 0.58, ME 0.56, NH 0.50, WY 0.38, SD 0.21, MI 0.50, PA 0.37, CT 0.52, NV 0.70, UT 0.76, NE 0.51, IA 0.45, OH 0.43, NJ 0.65, DE 0.46, CA 0.74, CO 0.55, IL 0.66, IN 0.57, WV 0.43, VA 0.63, MD 0.71, KS 0.40, MO 0.53, KY 0.48, NC 0.44, AZ 0.65, NM 0.71, OK 0.60, AR 0.58, TN 0.38, SC 0.56, MS 0.74, AL 0.54, GA 0.49, TX 0.80, LA 0.72, FL 0.87, AK 0.66, HI 0.55

- **A (0.95+)**
- **B (0.90–0.949)**
- **C (0.85–0.889)**
- **D (0.80–0.849)**
- **F (<0.80)**

LATINX IN NON-TITLE I SCHOOLS

National 0.57

WA 0.40, MT 0.42, ND 0.50, MN 0.51, OR 0.37, ID 0.42, WI 0.60, NY 0.47, ME 0.23, NH 0.58, WY 0.44, SD 0.27, MI 0.55, PA 0.39, CT 0.61, NV 0.57, UT 0.73, NE 0.50, IA 0.46, OH 0.47, NJ 0.65, DE 0.45, CA 0.66, CO 0.51, IL 0.50, IN 0.62, WV 0.44, VA 0.63, MD 0.86, KS 0.50, MO 0.68, KY 0.56, NC 0.43, AZ 0.63, NM 0.69, OK 0.69, AR 0.40, TN 0.40, SC 0.58, MS 0.70, AL 0.46, GA 0.48, TX 0.59, LA 0.90, FL 0.75, AK 0.58, HI 0.60

- **A (0.95+)**
- **B (0.90–0.949)**
- **C (0.85–0.889)**
- **D (0.80–0.849)**
- **F (<0.80)**

LATINX IN TITLE I SCHOOLS

National 0.78

WA 0.39, MT 0.41, ND 0.31, MN 0.76, OR 0.62, ID 0.35, WI 0.69, NY 0.73, ME 0.60, NH 0.48, WY 0.32, SD 0.17, MI 0.51, PA 0.39, CT 0.54, NV 0.80, UT 1.08, CO 0.91, NE 0.79, IA 0.50, OH 0.44, NJ 0.65, DE 0.49, CA 0.81, IL 0.72, IN 0.60, WV 0.41, VA 0.78, MD 0.77, KS 0.42, MO 0.49, KY 0.47, NC 0.49, AZ 0.65, NM 0.76, OK 0.60, AR 0.59, TN 0.42, SC 0.66, MS 0.76, AL 0.59, GA 0.58, TX 0.90, LA 0.72, FL 0.94, AK 0.79, HI 0.52

- **A (0.95+)**
- **B (0.90–0.949)**
- **C (0.85–0.889)**
- **D (0.80–0.849)**
- **F (<0.80)**

Figure 6. Representation Indices (RIs) for Latinx Youth by State in All, Non-Title I, and Title I Schools, 2015–2016

Note. Bold typeface denotes the 10 states with the largest percentage of Latinx youth attending schools that identify students with gifts and talents. Because fewer than 5% of their students have access to identification, the District of Columbia, Massachusetts, Rhode Island, and Vermont are not included in this table.

Latinx Youth Missing from Gifted Identification

Missingness estimates of Latinx students with gifts and talents came from a combination of youth who had no access to identification because the schools they attended did not identify and inequitable identification in schools that did identify. For our analyses of missingness in Table 14 we calculated an estimated range of the number of Latinx students with gifts and talents that would be identified if there had been equity of access and identification. The lower boundary estimate was based on the average percentage of students identified; the upper boundary estimate was based on the average percentage of students identified in Non-Title I schools. Adapting 20% as the cut off criterion for approaching an acceptable percentage of Latinx youth missing from identification with gifts and talents (Gentry et al., 2019), no state meets this criteria. Florida (21.78%) and Texas (25.91%) have the lowest percentages of Latinx youth missing from identification at the lower boundary estimate. But, with their large Latinx student populations, these percentages equate to an estimated 12,922 and 58,892 Latinx youth, respectively, missing from gifted identification at the states' lower boundary. All other states were missing between 33.90% (LA) and 100% (DC & VT) of their Latinx students with gifts and talents from identification at the lower boundary estimate. The upper boundary estimated percentages of Latinx students missing from identification of their gifts and talents were well above 20% in every state. Nationally, 588,891 Latinx youth were identified with gifts and talents; however, between 658,544 (52.79%) and 1,164,363 (66.41%) were missing from identification. In short across the country, due to lack of access in some schools and underidentification in others, many more Latinx students were missing than were identified with gifts and talents. These data are depicted in Table 14 and in Figure 7.

Table 14. *Latinx Students Identified with Gifts and Talents in 2015-2016 with Estimated Number and Percentage of Latinx Youth Missing at Lower and Upper Boundaries.*

State	Latinx Students Identified with Gifts and Talents	Latinx Students Missing at Lower Boundary Estimate	Latinx Students Missing at Upper Boundary Estimate	Percentage Missing at Lower Boundary	Percentage Missing at Upper Boundary
AK	351	251	352	41.68%	50.09%
AL	1,869	2,811	4,541	60.06%	70.84%
AR	3,229	3,186	3,874	49.66%	54.54%
AZ	16,294	21,028	12,799	56.34%	43.99%
CA	175,187	162,996	254,853	48.20%	59.26%
CO	12,553	12,134	16,315	49.15%	56.52%
CT	1,332	6,964	9,448	83.94%	87.64%
DC	0	1,217	1,712	100.00%	100.00%
DE	312	1,418	2,101	81.97%	87.07%
FL	46,396	12,922	54,566	21.78%	54.05%
GA	13,694	15,074	31,188	52.40%	69.49%
HI	311	648	489	67.57%	61.12%
IA	2,012	2,790	4,074	58.10%	66.94%
ID	448	1,908	2,360	80.98%	84.04%
IL	10,475	57,769	69,631	84.65%	86.92%
IN	7,975	8,618	16,468	51.94%	67.37%
KS	863	1,939	2,955	69.20%	77.40%
KY	2,418	3,670	5,190	60.28%	68.22%
LA	1,334	684	2,890	33.90%	68.42%
MA	1,250	15,583	21,917	92.57%	94.60%
MD	19,672	14,766	22,894	42.88%	53.78%
ME	106	129	159	54.82%	60.01%
MI	591	13,312	17,390	95.75%	96.71%
MN	4,401	6,916	7,479	61.11%	62.95%
MO	1,219	1,810	2,845	59.75%	70.01%
MS	994	722	1,226	42.07%	55.23%
MT	89	293	281	76.72%	75.94%
NC	12,390	17,526	36,957	58.58%	74.89%
ND	47	365	426	88.59%	90.06%
NE	3,354	4,400	6,577	56.75%	66.23%
NH	38	1,134	1,157	96.76%	96.82%
NJ	10,843	29,270	31,481	72.97%	74.38%
NM	7,056	4,435	17,333	38.60%	71.07%
NV	7,397	3,933	6,169	34.71%	45.47%
NY	4,651	94,583	70,802	95.31%	93.84%

Table 14. continued

State	Latinx Students Identified with Gifts and Talents	Latinx Students Missing at Lower Boundary Estimate	Latinx Students Missing at Upper Boundary Estimate	Percentage Missing at Lower Boundary	Percentage Missing at Upper Boundary
OH	*2,243*	5,806	9,334	**72.13%**	**80.63%**
OK	*9,247*	7,337	15,631	**44.24%**	**62.83%**
OR	*2,759*	6,332	9,105	**69.65%**	**76.74%**
PA	*1,957*	5,759	8,715	**74.64%**	**81.66%**
RI	*3*	3,254	4,577	**99.91%**	**99.93%**
SC	*5,608*	5,366	8,693	**48.90%**	**60.79%**
SD	*38*	432	570	**91.92%**	**93.75%**
TN	*527*	2,005	4,551	**79.18%**	**89.62%**
TX	*168,406*	58,892	167,604	**25.91%**	**49.88%**
UT	*4,310*	9,344	11,542	**68.43%**	**72.81%**
VA	*14,241*	10,570	15,298	**42.60%**	**51.79%**
VT	*0*	132	186	**100.00%**	**100.00%**
WA	*4,586*	11,484	12,388	**71.46%**	**72.98%**
WI	*3,608*	4,806	5,640	**57.12%**	**60.99%**
WV	*35*	76	100	**68.43%**	**74.10%**
WY	*172*	819	915	**82.65%**	**84.18%**
Nation	*588,891*	658,544	1,164,363	**52.79%**	**66.41%**

Note. States in bold font have mandates regarding the identification and/or service of students with gifts and talents. Percentages in bold font are greater than 20% and indicate unacceptable levels of missing Latinx students.

Figure 7 depicts the percentage of Latinx youth with gifts and talents missing from identification across the country. The black bar is the percentage of missingness at the lower boundary calculation. The gray bar, in addition to the black bar percentage, is the percentage of missingness at the upper boundary calculation. The space between the end of a black or gray bar and the 100% line is the percentage of Latinx youth identified with gifts and talents.
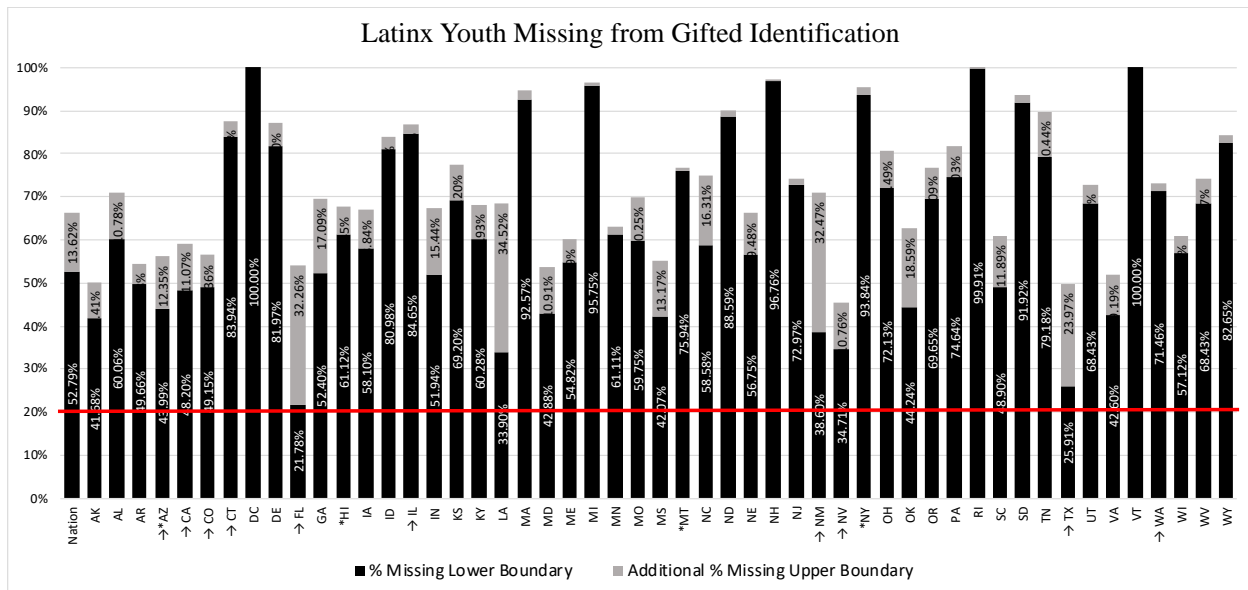
Figure 7. Percentage estimates of Latinx youth with gifts and talents missing from gifted identification by state and nation at lower and upper boundary estimates, 2015–2016.

Note. * In these states the state average identification rate is higher than the state average Non-Title I school identification. In these cases, the bars for % Missing Lower Boundary and the Additional % Missing Upper Boundary are reversed.
→ These states have the 10 largest proportions of Latinx students in their student enrollment among schools that identify students with gifts and talents. For the District of Columbia, Massachusetts, Rhode Island and Vermont, calculations for percentage missing at lower boundary were based on the national average percentage of students identified, and the percentage missing at the upper boundary were based on the national average percentage of students identified in Non-Title I schools.

Discussion

Clearly, these analyses of four waves of population data reveal continued and severe underrepresentation and missingness of Latinx youth with gifts and talents across the United States. This problem is longstanding and from these data has shown little improvement over many years. However, in Texas and Florida each of which have large populations of Latinx youth, progress is being made toward equity in identification. School district personnel must attend to issues of access, equity and missingness of Latinx youth in gifted programs, lest they continue to engage in segregation, unequal access, and unequal educational opportunities and in doing so lose talents among this educationally vulnerable population of students. As Garcia and Sung (2018) observed, "Action informed by historical consciousness is a powerful tool" (p. 329) from which strength can be drawn to address the depths of inequality in gifted education programming for Latinx youth in the United States which these data underscore.

Access

Nationally, in 2015-2016 Latinx students had access to identification by attending schools that identify students with gifts and talents, at a ratio of 1.05 in comparison to the access to identification all students had (71% Latinx student access vs. 67% all student access). This may be due in part to around 80% of Latinx youth attending schools in City (41%) and Suburb (39%) locales, which typically identify more students with gifts and talents, in general. Schools in these locales have been shown to provide a greater proportion of funds and staff for gifted education than schools in Town and Rural locales (Kettler et al., 2015).

However, 29.23% of Latinx students lacked access to identification, as they attended schools in which no students with gifts and talents were identified. Lack of appropriate services for gifted youth can negatively affect their educational trajectories (USDOE, 1993).

Despite good access nationally and in most states, schools in which students were identified with gifts and talents overwhelmingly identified smaller-than-average percentages of Latinx students with gifts and talents. This was true of Non-Title I and Title I Schools, with 79% of Latinx youth attending Title I schools. Title I schools across the country identified fewer students with gifts and talents than did Non-Title I schools (Gentry et al., 2019). This compounds underrepresentation of Latinx youth who disproportionately attend Title I schools. High poverty concentration schools were shown to have a negative relationship with the amount of school funds spent on gifted education, student motivation, student academic attitudes in addition to being a strong predictor of student academic failure. (Kettler et al., 2015; Battistich et al., 1995; Vanderhaar et al., 2006).

Identification and (In)Equity

According to standards set forth by the Equal Employment Opportunity Commission (29 C.F.R. §1607.4, 2019) as adapted by Ford (2013) and Gentry et al. (2019), Latinx youth are underidentified with gifts and talents as quantified by representation indices in the U. S. nationally, and across school types and locales in states. Representation Indices less than 0.80 are evidence these youth are experiencing adverse impact to their opportunities for identification (29 C.F.R. §1607.4, 2019). With few exceptions, RIs across the country for Latinx youth are low and these students are inequitably identified. Texas and Florida show promise in their

identification of Latinx youth, and this result is especially encouraging because each of these states has a large percentage of Latinx youth in their school populations (52% and 32%, respectively). Louisiana also shows promise in identification of Latinx youth with equitable RIs in Non-Title I schools and in Town and Rural locales (0.90, 0.97, 0.85, respectively). However, for states like New Mexico, with more than 60% of its students identifying as Latinx, representation indices near 0.70 need improvement. Nationally, the RI for Latinx youth is 0.67 with a range of 0.57 in Non-Title I schools to 0.78 in Title I schools. Within the states the variation of RIs is wide, with 93.45% below the 0.80 threshold. Overall Latinx RIs are as low as 0.21 in South Dakota to as high as 0.87 in Florida, so there is work to be done to solve the inequity in gifted education related to identifying and serving Latinx students.

Missingness

More Latinx youth with gifts and talents are missing from gifted education than are identified. This is due to a combination of lack of access (i.e., attending a school that does not identify any children with gifts and talents) and to underidentification in schools that do identify. Nationally, between 658,544 and 1,164,363 Latinx students were missing from gifted education identification. Put another way, with only 588,891 students identified, up to 66% of Latinx students with high potential went unrecognized in 2015-2016. This is a staggering number of students whose talents are at risk of being lost or undeveloped as they attend public schools in the United States. Only Florida and Texas came close to the acceptable limit for missingness of less than 20% at 21.78% and 25.91%, respectively.

Limitations

This analysis is limited to the data that were reported by schools to the OCR. Schools reported data categorizing students into the seven federal racial groupings. Because the group *Hispanic or Latino* incorporates a broad range of nationalities and ethnicities an analysis of patterns between subgroups of students is not possible. Additionally, schools only reported on students' gifted education identification. The data do not include information about the gifted education programming or practices in schools. The quantity and/or quality of such programming is unknown. Approximately 2% of schools, and their students, were excluded from

analyses of locale codes and close to 5% of schools, and their students, were excluded from analyses of school Title I status because this variable was not available for all schools. This had the greatest effect on the analysis of Latinx youth in New York by school Title I status as nearly 36% of schools did not have this variable available. Additionally, the data used were those reported by the schools. It is possible that school data were not accurate, this could include under- and over-reporting of students identified with gifts and talents, as well as other errors in the data.

Future Research

The categorization of students from a large variety of cultures and ethnicities, numerous languages, and different countries with distinctive histories into a single category is problematic. Our analyses lack the data to explore any nuanced patterns of gifted access, equity or missingness that may be related to these factors. A future project may find other trends in the data if ethnicity or home language was added as a variable. Future investigations should include cities, communities, and states like Texas, Florida, and Louisiana that seem to differ from the rest of the nation and show promise for equitable representation of Latinx youth with gifts and talents. Determining practices in these places could inform others about how to address their own inequities.

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CHAPTER 4. NATIVE HAWAIIAN OR OTHER PACIFIC ISLANDER YOUTH IDENTIFIED AS GIFTED: ACCESS, REPRESENTATION, AND MISSINGNESS IN THE UNITED STATES

Abstract

This research addresses the extent to which Native Hawaiian or other Pacific Islander (NHPI) students with gifts and talents have access to gifted education, are identified proportionally, and are missing from identification. This study used the Office of Civil Rights Data Collection for the years 2011–2012, 2013–2014, and 2015–2016 to investigate underrepresentation of NHPI youth with gifts and talents, in the nation and across the 20 states with the greatest proportion of NHPI youth. Schools were examined separately by Title I and Non-Title I status as well as school locale (i.e., City, Suburb, Town, Rural) to determine whether school poverty concentration and/or school locale mattered in the identification of NHPI students. Lack of access to identification in the 20 states, was not a contributing factor to underrepresentation. In Title I schools NHPI students were underidentified in 13 of the 20 states. With a criterion of 0.80 to meet the *four-fifths rule* for equity ratios and representation indices, 67% of the ratios and 61% of the representation indices (RI) were inequitable. There were 6,594 NHPI students with gifts and talents identified in the 20 states in 2015–2016. An estimated 7,236 (52.32%) and 9,253 (58.39%) NHPI youth were missing from gifted identification among these states that year.

Keywords: Native Hawaiian, Pacific Islander, gifted, talented, identification, access, Title I, equity, City, Suburb, Town, Rural

Background

Throughout this paper, the acronym NHPI will be used to refer to students and youth whose data has been categorized into the federal racial group of *Native Hawaiian or Other Pacific Islander*. Students categorized into this group have "origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands" (National Center for Education Statistics Statistical Standards, 2012, p. 11).

NHPI Peoples and Public Education

This brief history focuses on the development of public education on the islands that became Hawaii and how this education affected Native Hawaiian people. Native Hawaiians already knew and had some trade relations with Europeans since Captain Cook had landed on the islands in the late 1770's (McLynn, 2011). In the 1820s missionaries from the United States arrived in the Hawaiian Islands to *civilize* and Christianize Native Hawaiians. To join a church Native Hawaiians were required to be literate; therefore, the missionaries established schools to educate them in basic academics. Instruction was conducted in the Hawaiian language to speed up their learning (Benham & Heck, 1998; C. Beyer, 2017; K. Beyer, 2014). Missionaries built boarding schools across the islands believing it was important to remove children from the influence of their traditional beliefs and behaviors and to indoctrinate them in the habits of Christianity (Beyer, 2017). The most prestigious schools were boys' boarding schools attended by young men from families of chiefs or families in which fathers were White. The curriculum focused on academics and training for leadership positions such as minister, doctor, lawyer, or teacher. Less prestigious were girls' boarding schools attended by young women from families of chiefs or in which fathers were White. These young women were educated in academic and domestic skills needed to effectively serve as wives of young men from higher social classes and in leadership positions in the community (C. Beyer, 2017; K. Beyer, 2014). This style of education was welcomed by many Native Hawaiians from the higher social classes. In fact, the Hawaiian Kingdom's constitution placed restrictions on people who were illiterate (Benham & Heck, 1998), and in 1841, King Kamehameha III created Hawaii's public education system (Hawaii State Department of Education, n.d.). Most Hawaiian children were instructed in a basic

academic curriculum and in manual labor in a similar style as the American Indian industrial boarding schools (C. Beyer, 2017; K. Beyer, 2014).

As part of the *civilizing* process, private land ownership and capitalism were introduced (Rosa, 2018). Few Native Hawaiians had wealth to purchase land, so White people became landowners and exploited the agricultural resources of the islands creating large sugar cane and pineapple plantations (Rosa, 2018). As the plantations expanded, the labor needs increased, and Hawaiian schools adjusted their curriculum to meet this need. Native Hawaiians' education continued to be one of literacy for participation in Christianity, but agricultural and industrial skills took on a greater role in their training. Even the schools for the social elites shifted their curriculum to meet the skill needs of White-owned agribusinesses (C. Beyer, 2017; K. Beyer, 2014).

The increased need for laborers and the expanding agribusiness opportunities brought more immigrants to the islands from China, Portugal, and Japan (Rosa, 2018). As the economy of the Hawaiian Kingdom grew and was largely in the hands of White U.S. citizen businessmen, economic ties to the U.S. strengthened, and the U.S. had greater political influence in Hawaii (Benham & Heck, 1998). Because of this influence, public schools began shifting to instruction in English, and only schools in rural and remote communities continued to teach in the Hawaiian language (Beyer, 2017). In 1893, the Hawaiian government was illegally overthrown by U.S. citizens, protected by U.S. Marines, paving the way for its annexation as a territory of the U.S. and later statehood (Benham & Heck, 1998). One of the first changes ordered by this new government was outlawing Hawaiian language use in public transactions, thus the use of the Hawaiian language for public school instruction was outlawed (Beyer, 2017).

Despite the devaluing of Native Hawaiian language and culture in public education policies, Native Hawaiians have continued to prioritize education. In 1989, the *Nā Pua No'eau* center, a University of Hawaii-based K–12 education center, was established (University of Hawaii, 2018). Using a Native Hawaiian context, Nā Pua No'eau centers the importance of education within the culture and the family. "It addresses all aspects of the process of teaching Hawaiian people and its inherent philosophical perspective—that is, the complex ways in which Hawaiians see things, understand things and do things" (Sing, 2008, p. 150)

Title I Schools and Student Achievement

A growing number of studies have shown that a stronger predictor of student academic failure is the concentration of poverty in a school in comparison to individual family poverty (Vanderhaar et al., 2006). High teacher turnover, leading to less experienced and less effective teachers is common in high poverty concentration schools (Simon & Johnson, 2015). Lack of resources and teaching staff issues negatively affect the achievement of students (Clotfelter et al., 2007; Myers et al., 2004). Additionally, school poverty concentration is negatively associated with student academic attitudes and motivation (Battistich et al., 1995). In 2015, Kettler et al. observed, among the Texas school districts they analyzed, the greater the concentration of poverty was within a school the lower the amount of money that was spent on gifted education. In other words, they found a negative relationship between gifted education spending and school poverty concentration.

From the Elementary and Secondary Education Act, Title I provides federal funding to public schools with high concentrations of students from low-income families (U.S. Department of Education, 2015). To qualify for Title I funds, 40% or more students in a school must qualify for free or reduced-price meals (U.S. Department of Education, 2015). Vanderhaar et al. (2006) found student achievement was negatively affected by school poverty concentration levels[2] greater than 40%. Title I funds can be used to raise the achievement of all students, but the intervention must focus primarily on low-achieving students. Examples of interventions are supplementary mathematics and/or reading instruction, afterschool programs, and special preschool programs (National Center for Education Statistics, n.d.). Because of these findings, Title I status was included in our analyses.

School Locale

In their study of 1,029 school districts in Texas, Kettler et al. (2015) found differences among locales (City, Suburb, Town, and Rural) in the number of staff and amount of funds allocated to gifted education. Comparing locales, Rural schools provided the least proportion of staff and funds and spent less per pupil for gifted education. Additional challenges such as

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[2] As measured by eligibility for the federal free and reduced-price meal program.

changing demographics, declining populations, poverty, and accountability requirements have had a negative effect on gifted education programming in rural schools (Howley et al., 2009).

Town schools, in comparison to City and Suburb schools, allocated fewer staff to gifted education; however, there were no effects for per-pupil spending or budget expenses for gifted education among these locales (Kettler et al., 2015). Gentry et al. (2019) found nationally, NHPI students had access to gifted identification, by attending schools that identify, at 0.97% the rate of all public-school students. This national equitable percentage of access may be due in part to 76% of NHPI students being educated in City and Suburb schools where there is greater funding and staffing.

Methods

In this descriptive study we sought to determine the extent to which NHPI students had access to gifted identification, and for those with access how proportionally identified they were. Finally, we describe the extent to which NHPI students were missing from gifted identification, due either to lack of access or to underidentification. Census population data were examined nationally and by state and included an examination of data for access, equity, and missingness with variables of school Title I status and school Locale (City, Suburb, Town, Rural). Specifically, the 20 states with the greatest proportions and largest populations of NHPI students were used in the analysis. The final purpose of this study was to uncover patterns of underrepresentation requiring further study. The themes and research questions that guided this inquiry are:

1. (access) To what extent do NHPI youth have access to being identified with gifts and talents in the United States and within the states?

2. (equity) To what extent are NHPI youth identified proportionally with gifts and talents? Further, how does school locale and Title I status affect proportional identification of NHPI youth with gifts and talents?

3. (missingness) To what extent are NHPI youth missing from identification as gifted and talented?

4. (next steps) What patterns exist in these data that warrant future research concerning access, identification, and (in)equity?

Data Sources

In 2000, the Office of Civil Rights (OCR) compiled data from all public schools for the Civil Rights Data Collection (CRDC). At that time, Native Hawaiians were categorized in the racial grouping of American Indian or Alaska Native, and Pacific Islanders were categorized with Asians. By the next CRDC population data collection, the categories had shifted, and Native Hawaiian or Other Pacific Islanders had become a racial group. These analyses are of the CRDC restricted use data files for the years 2011–2012, 2013–2014, and 2015–2016. Because these are population data sets, we were able to perform a complete analysis of NHPI youth. OCR provided a cross-walk in order to pair CRDC data with the Common Core of Data (CCD) public files of matching years.

The CCD from the National Center for Education Statistics was used to add locale information to the other school variables in this study, allowing for an investigation into the effects of school location on identification of NHPI students with gifts and talents. Rural and Town locales have three subdivisions related to distance from an urban area (fringe, distant, remote), and Suburb and City locales have three subdivisions (large, midsize, small) related to size (National Center for Education Statistics, n.d.). The subdivisions were combined under the corresponding locale (City, Suburb, Town, Rural) for these analyses.

During our analyses, we found little changed over the three collection periods, therefore our results herein focus on the 2015–2016 data, as it is the most current.

Data Analyses

This study focuses on the states with proportions and populations of NHPI students that can yield stable ratios and Representation Indices (RI) when subcategorized by Title I status and Locale. Following are the criteria used to identify these states. First, states with proportions of NHPI students at or above the national percentage of NHPI students in the population (0.39%) were selected (HI, AK, UT, NV, WA, AR, OR, and CA). Second, states with NHPI student populations of 1,946 or greater (1.00% of the national NHPI student population, 194,685) were included (TX, NY, FL, AZ, NJ, MO, OK, IL, CO, VA, GA, and NC). Together these 20 states educated 89% of the NHPI student population attending public schools in 2015-2016, leaving the

remaining 11% of NHPI youth dispersed across 30 states. Unfortunately, in these 30 states the populations of NHPI are too small for meaningful analyses.

Schools were sorted by the variables of Title I status and as with or without students identified as gifted. All students and NHPI students were sorted by general enrollment and gifted education enrollment and aggregated into the variables: Non-Title I with gifted identification, Non-Title I without gifted identification, Title I with gifted identification, Title I without gifted identification. Results were reported for the nation and these 20 states which serve 89% of the NHPI student population.

Access. First, access to identification was examined and reported by whether schools identified any students with gifts and talents. If no students were identified, then those schools were considered to lack access to gifted identification. For the schools that did identify, equity of identification was examined. These distinctions were broken down by Title I status and by Locale (City, Suburb, Town, and Rural). Thus, NHPI students and all students were examined by locale for the variables of enrollment, access to gifted identification, and identification (ID). The combinations of locale (City, Suburb, Town, Rural, Locale not reported), school Title I status (Non-Title I, Title I, Status not reported), and gifted identification (ID GT, No ID GT) resulted in 24 possible categories. Nationally, less than 5% of schools did not report Title I status and less than 3% of schools did not report locale. In these cases, the schools and student data are excluded from calculations requiring these variables. Among schools that did not identify students with gifts or talents, the students had no access to identification. Therefore, analyses of access to and equity in identification includes only schools that identified students with gifts and talents. In the analysis of missingness, schools without identification, and the students that attend them, are included.

Equity. Representation Indices (RIs) are calculated to show (in)equity in the representation of NHPI youth with gifts and talents. An RI is the ratio between the percentage of NHPI students among all students identified with gifts and talents and the percentage of NHPI in the student population. For example, if NHPI students were 10% of the students identified with gifts and talents (GT) and 20% of the student population, the RI would be 0.50 ($10 / 20 = 0.50$). In this example, NHPI are underrepresented by 50%.

Missingness. Underrepresentation occurs when students are not proportionately identified for gifted education services when compared to their peers and their numbers in the

general education program (Ford, 2014). Underrepresentation results in students missing from gifted education. *Missingness* is the term used in our analyses to identify NHPI students who attend schools where no students are identified and who attend schools where they are underidentified.

The final calculation of NHPI youth with gifts and talents in the nation and the 20 states was a multistep process resulting in lower boundary and upper boundary estimates used to quantify missingness. To calculate missingness, the lower boundary estimate used the average percentage of students identified in the nation (then in each state) multiplied by the number of students in schools that identify; the upper boundary estimate used the larger percentage of identified students in Non-Title I schools that identify multiplied by the number of students. The upper boundary estimate effectively addressed the question, "What if all schools identified students at the rate of Non-Title I schools?"

Thus, for the national lower boundary estimate, the number of NHPI students attending schools without identification ($n=68,044$) was multiplied by the national average percentage of students identified as gifted, 9.57% (68,044 x 9.57% = 6,515). Added to this total were the number of NHPI students underidentified, calculated through multiplying the NHPI students that attend schools that identify ($n=126,641$) by the national average percentage identified, 9.57% (126,641 x 9.57% = 12,126) and subtracting the number of NHPI students with gifts and talents identified ($n=7,459$) in those schools (12,126 – 7,459 = 4,667). This total (6,515 + 4,667= 11,182) is the national lower boundary estimate of missingness for NHPI youth with gifts and talents.

The percentage of NHPI youth with gifts and talents missing from the nation at the lower boundary estimate was calculated by totaling the identified and missing students, then dividing the missing by the total, and converting it to a percentage (i.e., 7,459 + 11,182 = 18,641 then 7,459/18,641 (100) = 59.99%). This process was repeated for each of the 20 states, using the state's average percentage identified to calculate lower boundary estimates of missing NHPI youth and the percentage of missing.

In their analysis of the CRDC data, Gentry et al. (2019) found most Non-Title I schools identified larger percentages of students than did Title I schools. Therefore, they considered students attending Title I schools to be underidentified when compared to students attending more affluent schools. Following this reasoning, Non-Title I percentages of students identified as

gifted were used to calculate upper boundary estimates of missingness in the same manner as described above. Nationally, the Non-Title I percent identified was 13.46%. This process was repeated for each of the 20 states, using the state's Non-Title I percentage of students identified with gifts and talents. These estimations, lower boundary and upper boundary, provide a range of the number of missing students.

Results

Following the work of Ford (2013) and Gentry et al. (2019), we adapted the Equal Employment Opportunity Commission (EEOC) *four-fifths (80%) rule* for interpreting the findings. The guideline set by the *four-fifths rule* identifies rates less than *80% (four-fifths)* for members of a group, as having *adverse impact* for those group members (29 C.F.R. §1607.4, 2019). Although the EEOC compares the underserved group to the majority, we compare the group to a standard of 100% or a ratio or RI of 1.00, which would be proportional representation. We did this for multiple reasons, one, the majority groups (i.e., White and Asian) varied in their representation indices from 1.00 to more than 4.00 across states and school types; two, using other race representation indices would result in variable targets; for example 80% of 2.00 is different than 80% of 1.00; and lastly, using a standard sets a bar for proportional (not comparative) representation for each group. When members of a group are people identified by a race/ethnicity or sex and they experience inequity greater than 80%, this *adverse impact* is defined as *discrimination* (29 C.F.R. §1607.3, 2019).

States, Title I Status, and Locales of Schools Where NHPI Youth Were Educated

The 20 states in Table 15, and the following tables, are ordered from largest percentage of NHPI youth to smallest percentage, with averages for the 20 states and the nation. Hawaii, overwhelmingly, has the largest percentage of NHPI students, followed by Alaska, Utah, Nevada, and Washington. In the other 15 states, NHPI students comprise less than 1% of the population, but in states such as California, New York, and Texas, the small percentage is still more than 5,000 children. Sixteen of the states had mandates pertaining to identification and/or serving of students with gifts and talents; Utah, California, Missouri, and New York did not have mandates. Utah, Colorado, and Virginia were the only states where a greater percentage of NHPI

youth attended Non-Title I schools than Title I schools. Non-Title I and Title I school enrollment was closest to an even distribution in Oregon (49% & 48%, respectively), 35.86% of schools in New York did not report Title I status, and in the remaining 15 states larger percentages of NHPI youth attended Title I schools. Across the 20 states, most NHPI students attended schools in City or Suburb locales, and in Illinois 85% of NHPI students are evenly split between these locales. Only in Oklahoma did more than 50% of NHPI youth attend Town schools. In Alaska and New York, three-quarters of NHPI students attended City schools, in New Jersey three-quarters attended Suburb schools, and Arkansas and North Carolina had the largest Rural NHPI populations among the 20 states.

Table 15. *NHPI Student Enrollment, by School Title I Status and Locale in 20 States and Nation for 2015–2016*

State	N of NHPI	Percentage of State Pop	National Cumulative %	Non-Title 1 %	Title 1 %	City %	Suburb %	Town %	Rural %
HI	55,642	30.46	28.58	26.29	73.71	20.07	40.27	26.55	13.11
AK	3,598	2.73	30.43	27.96	71.87	74.54	1.67	14.34	9.42
UT	10,109	1.52	35.62	64.93	35.07	24.13	68.52	3.39	3.96
NV	6,515	1.38	38.97	43.13	56.82	55.06	37.50	2.81	4.62
WA	11,391	1.04	44.82	29.21	70.53	42.42	51.20	2.75	3.40
AR	3,499	0.72	46.62	4.26	93.57	60.93	3.46	5.94	27.52
OR	4,118	0.72	48.73	47.91	51.75	48.70	31.47	12.66	6.90
CA	39,708	0.63	69.13	28.05	67.51	48.40	42.04	3.19	3.38
AZ	3,747	0.33	71.05	6.81	91.41	55.70	27.70	8.83	7.63
OK	2,276	0.33	72.22	9.14	90.07	22.28	12.96	51.36	12.61
MO	2,297	0.25	73.40	19.94	79.32	28.60	27.64	18.89	24.16
NY	6,640	0.24	76.81	8.27	18.61	76.76	14.73	2.77	3.92
CO	2,091	0.23	77.89	66.86	32.95	52.03	35.44	3.68	8.66
NJ	3,030	0.22	79.44	31.25	68.58	14.19	79.24	1.22	5.18
VA	2,003	0.16	80.47	75.04	24.81	35.35	44.23	2.55	17.72
FL	4,227	0.15	82.64	16.54	83.30	25.58	60.88	3.59	9.92
TX	7,122	0.13	86.30	19.46	80.27	37.52	41.43	8.66	12.16
NC	1,946	0.13	87.30	21.94	77.90	37.46	27.08	7.81	27.54
GA	1,971	0.11	88.31	34.15	65.50	25.72	47.03	5.18	21.56
IL	2,202	0.11	89.44	23.02	72.16	42.37	42.23	6.09	9.17
20 States	174,132	0.54		29.38	66.92	37.07	40.58	12.38	9.10
Nation	194,685	0.39		29.38	66.95	36.01	40.19	12.62	10.28

Note. States are ordered from the largest percentage of NHPI students in the state to the least. Percentages may not equal 100%, as a few schools (<5%) in each state did not identify Title I status or Locale, and in New York, 35.86% of schools did not identify Title I status. States in bold font have mandates regarding the identification and/or service of students with gifts and talents.

Access to Identification and Identification Rates

As shown in Table 16, from 2012 to 2016, the number of NHPI students dropped from 184,973 to 174,132, while the percentage of these students attending schools that identify youth with gifts and talents has increased from 54.48% to 65.57%. The percentages of students identified on average and in Non-Title I and Title I schools was lowest in 2015–2016 at about 5% and 6%, respectively. In 2015-2016 the ratio comparing identification in Title I schools to Non-Title I increased from the previous two data collections.

Table 16. *NHPI Students With Access to Identification as Gifted in the 20 States for 2011–2012, 2013–2014, and 2015–2016*

Year	Students Enrolled in 20 States	Students in Schools That Identify	Students Identified in Schools That ID	Students Identified in Non-Title I Schools That ID	Students Identified in Title I Schools That ID	Ratio of ID in Title I Schools Compared to Non-Title I Schools
2015–2016	174,132	114,180	6,594	2,429	4,050	
	0.54%	65.57%	5.78%	6.37%	5.39%	0.85
2013–2014	177,132	100,391	10,625	3,979	6,610	
	0.56%	56.68%	10.58%	12.98%	9.51%	0.73
2011–2012	184,973	100,772	8,858	4,635	4,059	
	0.59%	54.48%	8.79%	10.17%	7.55%	0.74

Note. Total students identified may not equal students in Title I and Non-Title I schools because a few schools in each state did not designate Title I status.

Access to identification is the opportunity a student has to be identified with gifts and talents by attending a school that identifies such children. Students attending schools that do not identify have no access to identification. We adopted from Gentry et al. (2019) the guideline of less than 60% of students enrolled in schools that identify youth with gifts and talents as a failing status for states in providing adequate access to identification for students. Of the 20 states in Table 17, Hawaii, Illinois, New Jersey, New York, and Utah have failing percentages of access for NHPI students. Of these five states, four (**IL**, **NJ,** NY, and UT) had failing percentage of access for all students in the state. In five states (**AR, AZ,** CA **OR,** and **WA**), NHPI youth had between 60% and 80% access, and 10 states (**AK, CO, FL, GA,** MO, **NC, NV, OK, TX,** and **VA**) they had greater than 80% access to identification. The ratios comparing access for NHPI to access for all students identified three states (**AR, HI,** and **OR**) as having unequal access to

identification compared to all students in the state. This is concerning as Hawaii, which educates the largest proportion of NHPI students, is one of these states.

Table 17. *Percentage of NHPI Students With Access, Percentage of All Students with Access, and Ratio of NHPI to All Students for 2015–2016 for the Nation and 20 States*

State	% NHPI Students in Schools that Identify	% All Students in Schools that Identify	Ratio of NHPI to All in Schools that Identify
AK	88.52	70.88	1.25
AR	78.94	88.55	*0.89
AZ	67.73	63.30	1.07
CA	67.32	67.78	0.99
CO	92.92	93.38	1.00
FL	89.54	87.86	1.02
GA	96.30	95.61	1.01
HI	56.38	63.78	*0.88
IL	31.29	25.76	1.21
MO	80.71	70.51	1.14
NC	90.24	92.88	0.97
NJ	55.97	50.77	1.10
NV	93.32	90.29	1.03
NY	11.99	11.38	1.05
OK	93.23	92.45	1.01
OR	73.22	81.96	*0.89
TX	95.44	93.24	1.02
UT	48.30	36.81	1.31
VA	93.01	93.08	1.00
WA	73.87	72.16	1.02
20 States	65.57	70.86	*0.93
Nation	65.05	67.38	0.97

Note. States in bold font have mandates regarding the identification and/or service of students with gifts and talents. Percentages in bold font are below 60%. Ratios in bold with * are below 0.95 and indicate unequal access for NHPI students.

Among the 20 states shown in Table 18, Washington had the lowest percentage of NHPI students identified (2.38%) and New Jersey had the largest percentage identified at 13.50%. When the average identification percentages are disaggregated by school Title I status the percentages are quite different. In Non-Title I schools, Hawaii identified the smallest percentage of NHPI youth (1.90%) and Illinois identified the largest percentage (22.84%); in Title I schools, Missouri identified the smallest (1.68%) and New Jersey identified the largest percentage of NHPI students (12.95%). The ratio of Title I to Non-Title I schools provides information regarding how different the percentages are. If a ratio is 0.95 or greater, then the percentages

identified between the school types are similar (within 5% or less); if a ratio is less than 0.80 significantly fewer students are identified in Title I schools than Non-Title I schools. The latter is the case for most schools as indicated by bold font. The smaller the ratio, the worse the inequity between the school types.

Table 18. *NHPI Students With Access to Identification, the Percent and Number Identified With Gifts and Talents in the 20 States, the Percent and Number Identified in Non-Title I Schools, and the Percent and Number Identified in Title I Schools, With the Ratio of Identification of NHPI Students in Title I schools to Identification in Non-Title I Schools, in 2015−2016*

State	Students With Access to Identification	Students Identified in Schools that ID		Students Identified in Non-Title I Schools		Students Identified in Title I Schools		Ratio of Identification in Title I Schools to Non-Title I Schools
		%	N	%	N	%	N	
AK	3,185	3.08	98	1.96	16	3.47	82	1.77
AR	2,762	2.93	81	4.51	6	2.85	75	**0.63**
AZ	2,538	5.36	136	0.00	0	5.39	135	*
CA	26,732	8.57	2,291	9.02	779	8.32	1,491	0.92
CO	1,943	5.61	109	6.18	83	4.34	26	**0.70**
FL	3,785	5.20	197	8.31	52	4.60	145	**0.55**
GA	1,898	9.85	187	14.07	92	7.65	95	**0.54**
HI	31,371	2.79	875	1.90	223	3.32	652	1.75
IL	689	12.77	88	22.84	45	9.45	43	**0.41**
MO	1,854	2.32	43	5.06	18	1.68	25	**0.33**
NC	1,756	8.20	144	13.40	54	6.66	90	**0.50**
NJ	1,696	13.50	229	14.68	80	12.95	149	0.88
NV	6,080	4.65	283	3.67	91	5.34	192	1.46
NY	796	14.82	118	15.71	11	10.59	18	**0.67**
OK	2,122	9.43	200	13.54	26	8.94	172	**0.66**
OR	3,015	3.28	99	4.61	75	1.73	24	**0.38**
TX	6,797	5.93	403	8.65	113	5.27	289	**0.61**
UT	4,883	11.80	576	13.96	427	8.17	149	**0.59**
VA	1,863	12.72	237	13.41	185	10.60	51	**0.79**
WA	8,415	2.38	200	2.08	53	2.51	147	1.20
20 States	114,180	5.78	6,594	6.37	2,429	5.39	4,050	0.85
Nation	126,641	5.89	7,459	6.78	2,839	5.37	4,500	**0.79**

Note: States in bold font have mandates regarding the identification and/or service of students with gifts and talents. Ratios in bold font are below 0.80 and indicate failing equity. * Indicates the calculation of a ratio is not possible.

(In)Equity of Access and Identification

In Table 16, the percentage of NHPI students identified with gifts and talents in both Title I and Non-Title I schools was at its lowest in 2015–2016. However, the ratio of identification between the school types showed the greatest level of equity that same year. In other words, there was greater equity of identification for NHPI youth between school types in 2015–2016, but at much lower rates of identification in both school types.

NHPI youth have equity in access to identification with gifts and talents in 17 of 20 states (Table 17), with access ratios of 0.95 or greater. Hawaii, Arkansas, and Oregon have access ratios of 0.88, 0.89, and 0.89 respectively, meaning NHPI students are less likely than their peers to attend schools that identify gifted youth. The ratio for the 20 states combined in the sample is 0.93, meaning NHPI youth are less likely than other children to attend schools that identify. In fact, in Hawaii they are 12% less likely to attend such schools. In six states (**AK, AZ, GA,** MO, **NJ,** & UT) the ratios indicate NHPI have greater access to identification than all students on average, meaning they are more likely than other students to attend schools that identify youth with gifts and talents.

The last column of Table 18 shows a ratio in each of the 20 states of the percentage of NHPI students identified as gifted in Title I schools to the percentage identified in Non-Title I schools. Four states (**AK, HI, NV,** & **WA**) out of the top five for percentage of NHPI students, had larger percentages of NHPI students identified in Title I schools than in Non-Title I schools. Thirteen states (**AR, CO, FL, GA, IL,** MO, **NC,** NY, **OK**, **OR, TX,** UT, & **VA**) had inequity of identification in Title I schools with ratios less than 0.80 compared to Non-Title I schools. A ratio was not calculated for Arizona as no students attending Non-Title I schools, were identified with gifts and talents.

Each of the 20 states identified NHPI students with gifts and talents at percentages ranging from 1.68% (MO, Title I) to 22.84% (**IL**, Non-Title I). Because states independently set gifted education policy and procedures, these data are simply reported and not intended to be compared as good or bad between states. The percentage of students identified is not at issue; rather what is at issue is whether NHPI students are identified equitably within these states and among the different types of schools they attend.

Table 19 provides comparisons among states of identification rates of NHPI students to identification rates of all students to determine equity, overall, by Non-Title I, and Title I

schools. Ratios below 0.80 are considered failing at equity of identification for NHPI youth. Twelve states (**AK, AR, AZ, CO, FL, HI,** MO, **NC, OK**, **OR, TX,** & **WA**) had failing ratios for Title I equity for NHPI students in all schools. Nationally, NHPI are identified at only 0.62 the rate of other students across all schools, but at 0.49 the rate of other students in Non-Title I schools. The Non-Title I schools of 14 states (**AK, AR, AZ,** CA, **CO, FL, HI,** MO, **NC, NV, OK, OR, TX,** & **WA**), and the Title I schools of 12 states (**AK, AR, AZ, FL, HI, IL,** MO, **NC, OK, OR, TX,** & **WA**), had failing ratios. Only Georgia, New York, New Jersey, Utah, and Virginia had ratios greater than 0.80 across all school categories. In summary, of the 66 ratios of identification between NHPI and all students, 44 ratios, or 67%, were below 0.80, inequitable rates that have adverse impact.

Table 19. *Percentage of NHPI Students and All Students Identified With Ratios of NHPI to All Students in Schools With Access, Non-Title I Schools With Access, and Title I Schools With Access to Identification, 2015–2016 in 20 States*

State	Students Identified in Schools With Access		Ratio of NHPI Student ID to All Student ID in Schools With Access	Students Identified in Non-Title I Schools With Access		Ratio of NHPI Student ID to All Student ID in Non-Title I Schools With Access	Students Identified in Title I Schools With Access		Ratio of NHPI Student ID to All Student ID in Title I Schools With Access
	% NHPI	% All		% NHPI	% All		% NHPI	% All	
AK	3.08	6.84	**0.45**	1.96	7.99	**0.25**	3.47	5.64	**0.62**
AR	2.93	10.76	**0.27**	4.51	11.91	**0.38**	2.85	10.67	**0.27**
AZ	5.36	7.40	**0.72**	0.00	5.77	**0.00**	5.39	7.45	**0.72**
CA	8.57	10.00	*0.86	9.02	12.71	**0.71**	8.32	8.81	*0.94
CO	5.61	8.22	**0.68**	6.18	9.61	**0.64**	4.34	4.51	*0.96
FL	5.20	6.75	**0.77**	8.31	11.49	**0.72**	4.60	5.92	**0.78**
GA	9.85	11.21	*0.88	14.07	17.49	*0.80	7.65	7.37	*1.04
HI	2.79	4.36	**0.64**	1.90	3.63	**0.52**	3.32	5.13	**0.65**
IL	12.77	13.20	*0.97	22.84	15.49	*1.47	9.45	12.83	**0.74**
MO	2.32	5.58	**0.42**	5.06	7.48	**0.68**	1.68	4.98	**0.34**
NC	8.20	11.85	**0.69**	13.40	19.54	**0.69**	6.66	9.25	**0.72**
NJ	13.50	11.50	*1.17	14.68	12.14	*1.21	12.95	11.15	*1.16
NV	4.65	5.78	*0.81	3.67	6.92	**0.53**	5.34	5.03	*1.06
NY	14.82	14.11	*1.05	15.71	10.73	*1.46	10.59	13.03	*0.81
OK	9.43	15.04	**0.63**	13.54	22.56	**0.60**	8.94	14.02	**0.64**
OR	3.28	7.05	**0.47**	4.61	9.19	**0.50**	1.73	3.15	**0.55**
TX	5.93	8.19	**0.72**	8.65	12.10	**0.71**	5.27	7.24	**0.73**
UT	11.80	12.68	*0.93	13.96	14.72	*0.95	8.17	7.37	*1.11
VA	12.72	13.42	*0.95	13.41	15.98	*0.84	10.60	7.24	*1.46
WA	2.38	6.49	**0.37**	2.08	6.86	**0.30**	2.51	6.34	**0.40**
20 States	5.78	9.43	**0.61**	6.37	12.94	**0.49**	5.39	7.89	**0.68**
Nation	5.89	9.57	**0.62**	6.78	13.46	**0.50**	5.37	7.86	**0.68**

Note. States in bold font have mandates regarding the identification and/or service of students with gifts and talents. Ratios in bold font are below 0.80 and indicate failing equity. Ratios with * are at or above 0.80 and indicate passing equity.
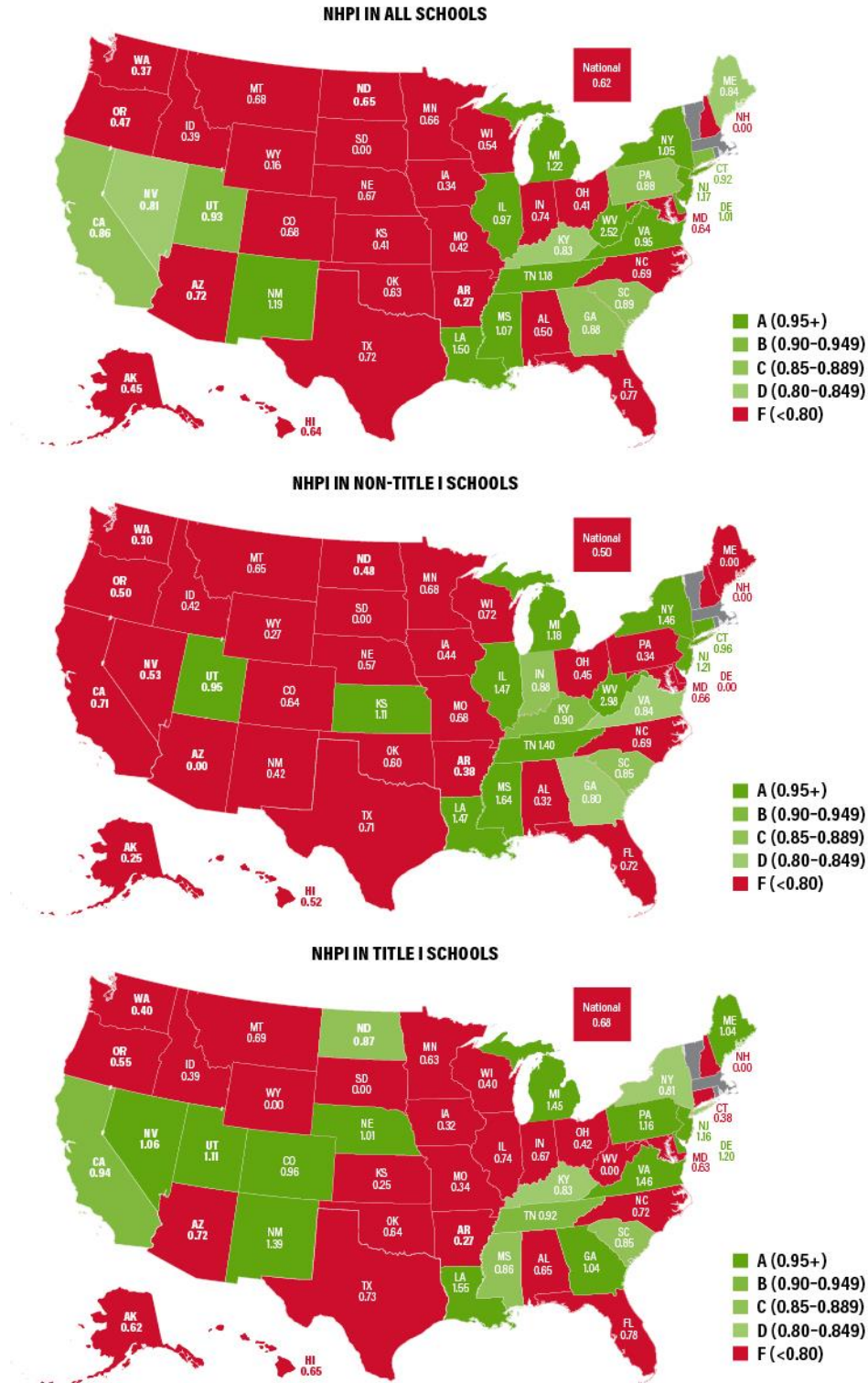
(In)Equity of Representation

Representation indices (RIs) are a simple ratio of the percentage of NHPI students identified to the percentage of NHPI enrolled. As with the above equity ratios, RIs less than 0.80 is considered to be failing at equitable representation of NHPI youth. Table 20 presents RIs by state, sample, and nation, for NHPI youth overall, in Non-Title I, Title I, City, Suburb, Town, and Rural schools. Of the 154 RIs in Table 20, 94 of them, or 61%, were inequitable at less than 0.80. Twelve states (**AK, AR, AZ, CO, FL, HI,** MO, **NC, OK, OR, TX,** & **WA**) had overall RIs that are failing. NHPI youth lacked equitable representation in 14 (**AK, AR, AZ,** CA, **CO, FL, HI,** MO, **NC, NV, OR, OK, TX,** & **WA**) states in Non-Title I schools and in 12 states (**AK, AR, AZ, FL, HI, IL,** MO**, NC, OK, OR, TX,** & **WA**) in Title I schools. Among schools by state in the four locales, NHPI students had equitable representation in City schools in 14 states (**AK, AR,** CA, **CO, FL, GA, IL,** MO, **NJ,** NY, **OK, TX, VA,** & **WA**), Suburb schools in 11 states (**AK, AZ, IL,** CA, **CO, GA,** MO, **OK, OR, VA,** & **WA**), and in nine states in Town (**AK, AR, CO, GA, HI, IL,** MO, NY, & **WA**); and Rural schools (**AK, GA, NJ, NV,** NY, **OR,** UT, **VA,** & **WA**). NHPI students in Alaska and Washington lacked equity across all school types and locales. Utah had the most equitable RIs for students in all school types and all locales with the exception of Rural schools (0.68).

Table 20. *Representation Indices Overall, by Title I Status and by Locale for NHPI Students Identified With Gifts and Talents, 2015–2016 in the 20 States*

State	NHPI Students Identified	Overall RI	Non-Title I RI	Title I RI	City RI	Suburb RI	Town RI	Rural RI
AK	98	**0.45**	**0.25**	**0.62**	**0.16**	**0.67**	**0.38**	**0.36**
AR	81	**0.27**	**0.38**	**0.27**	**0.59**	*1.05	**0.39**	*1.05
AZ	136	**0.72**	**0.00**	**0.72**	0.84	**0.78**	*0.82	*1.20
CA	2,291	*0.86	**0.71**	*0.94	**0.70**	**0.52**	*0.91	*0.88
CO	109	**0.68**	**0.64**	*0.96	**0.67**	**0.78**	**0.61**	*1.24
FL	197	**0.77**	**0.72**	**0.78**	**0.73**	*0.92	*1.12	*0.84
GA	187	*0.88	*0.80	*1.04	**0.47**	**0.60**	**0.56**	**0.42**
HI	875	**0.64**	**0.52**	**0.65**	1.65	*0.96	**0.50**	*0.82
IL	88	*0.97	*1.47	**0.74**	**0.18**	**0.66**	**0.24**	*0.82
MO	43	**0.42**	**0.68**	**0.34**	**0.54**	**0.69**	**0.63**	*0.82
NC	144	**0.69**	**0.69**	**0.72**	1.78	*1.26	*0.82	*1.39
NJ	229	*1.17	*1.21	*1.16	**0.69**	*0.95	*1.24	**0.73**
NV	283	*0.81	**0.53**	*1.06	0.99	*1.27	*1.58	**0.67**
NY	118	*1.05	*1.46	*0.81	**0.75**	*0.93	**0.48**	0.72
OK	200	**0.63**	**0.60**	**0.64**	**0.29**	**0.30**	*1.13	*0.85
OR	99	**0.47**	**0.50**	**0.55**	0.84	**0.63**	*0.82	0.71
TX	403	**0.72**	**0.71**	**0.73**	**0.57**	*1.35	*1.82	*0.92
UT	576	*0.93	*0.95	*1.11	1.08	*0.85	*1.61	**0.68**
VA	237	*0.95	*0.84	*1.46	**0.15**	**0.51**	*0.99	**0.40**
WA	200	**0.37**	**0.30**	**0.40**	**0.56**	**0.60**	**0.56**	**0.42**
20 States	6,594	**0.61**	**0.49**	**0.68**	**0.39**	1.04	**0.43**	**0.29**
Nation	7,459	**0.62**	**0.50**	**0.68**	**0.61**	**0.61**	**0.55**	**0.49**

Note. States in bold font have mandates regarding the identification and/or service of students with gifts and talents. RI in bold font are below 0.80 and indicate failing equity. RIs with * are at or above 0.80 and indicate passing equity.

Figure 8 visually depicts RI scores across the entire country for NHPI students. Outside of the 20 states included in our sample, the RIs of the other 30 states and the District of Columbia may not be stable given the low numbers of NHPI students enrolled. Gentry et al. (2019) graded each state on equity overall and by Title I school status, with encouragement to schools to put measures in place to eliminate inequity and target equitable representation. An RI of 0.80 is better than one of 0.50, but it is only 80% equitable, it can still improve.

NHPI IN ALL SCHOOLS

A (0.95+)	(dark green)
B (0.90–0.949)	(green)
C (0.85–0.889)	(light green)
D (0.80–0.849)	(pale green)
F (<0.80)	(red)

NHPI IN NON-TITLE I SCHOOLS

A (0.95+)	(dark green)
B (0.90–0.949)	(green)
C (0.85–0.889)	(light green)
D (0.80–0.849)	(pale green)
F (<0.80)	(red)

NHPI IN TITLE I SCHOOLS

A (0.95+)	(dark green)
B (0.90–0.949)	(green)
C (0.85–0.889)	(light green)
D (0.80–0.849)	(pale green)
F (<0.80)	(red)

Figure 8. Representation Indices (RIs) for NHPI Youth by State in All, Non-Title I, and Title I Schools, 2015–2016

Note. Bold typeface denotes the 10 states with the largest percentage of NHPI youth attending school that identify students with gifts and talents. Because fewer than 5% of their students have access to identification, the District of Columbia, Massachusetts, Rhode Island, and Vermont are not included in this table.

NHPI Youth Missing From Gifted Identification

Missingness estimates were calculated from a combination of NHPI students with gifts and talents who had no access to identification because they attended schools that did not identify, and those who were underidentified in schools that did identify. For our analyses of missingness in Table 21 we calculated an estimated range of the number of NHPI students with gifts and talents that would be identified had there been equity of access and identification. The lower boundary estimate was based on the average percentage of students identified; the upper boundary estimate was based on the average percentage of students identified in Non-Title I schools. Adapting 20% as the cut off criterion for approaching an acceptable percentage of NHPI youth missing from identification with gifts and talents (Gentry et al, 2019), two states meet this criterion at the lower boundary, but no states meet the criterion at the upper boundary. Virginia (11.84%) and Georgia (15.35%) are missing the lowest percentages of NHPI youth from identification at the lower boundary estimate and are within the 20% criteria. All other states were missing between 24.86% (NV) and 87.46% (NY) of their NHPI students with gifts and talents from identification at the lower boundary. All states were well above the 20% criteria for the percentage of NHPI missing from identification of their gifts and talents at the upper boundary estimate. Among the 20 states in our sample, 6,594 NHPI youth with gifts and talents were identified; however, between 7,236 (52.32%) and 9,253 (58.39%) were missing from identification. In short, across the country, due to lack of access and underidentification, more NHPI students are missing than were identified with gifts and talents. These data are depicted in Table 21, and in Figure 9.

Table 21. *NHPI Students Identified with Gifts and Talents in 2015-2016 with Estimated Number and Percentage of NHPI Youth Missing at Lower and Upper Boundaries.*

State	NHPI Students Identified with Gifts and Talents	NHPI Students Missing at Lower Boundary Estimate	NHPI Students Missing at Upper Boundary Estimate	Percentage Missing at Lower Boundary	Percentage Missing at Upper Boundary
AK	*98*	148	190	**60.19%**	**65.93%**
AR	*81*	296	336	**78.51%**	**80.58%**
AZ	*136*	141	80	**50.96%**	**37.09%**
CA	*2,291*	1,679	2,757	**42.29%**	**54.62%**
CO	*109*	63	92	**36.60%**	**45.78%**
FL	*197*	88	289	**30.96%**	**59.44%**
GA	*187*	34	158	15.35%	**45.74%**
HI	*875*	1,550	1,147	**63.92%**	**56.73%**
IL	*88*	203	253	**69.72%**	**74.20%**
MO	*43*	85	129	**66.42%**	**74.98%**
NC	*144*	87	236	**37.55%**	**62.14%**
NJ	*229*	153	162	**40.13%**	**41.42%**
NV	*283*	94	168	**24.86%**	**37.25%**
NY	*118*	825	627	**87.48%**	**84.16%**
OK	*200*	142	313	**41.56%**	**61.04%**
OR	*99*	191	280	**65.88%**	**73.85%**
TX	*403*	180	459	**30.88%**	**53.24%**
UT	*576*	706	912	**55.06%**	**61.30%**
VA	*237*	32	83	11.84%	**25.95%**
WA	*200*	540	581	**72.96%**	**74.40%**
20 States	*6,594*	7,236	9,253	**52.32%**	**58.39%**
Nation	*7,459*	11,182	18,741	**59.99%**	**71.53%**

Note. States in bold font have mandates regarding the identification and/or service of students with gifts and talents. Percentages in bold font are greater than 20% and indicate the state exceeds an acceptable percentage of missing NHPI youth at that boundary.

In Figure 9, the percentage of NHPI youth with gifts and talents missing at the lower boundary estimate is depicted by the black bar. The percentage missing at the upper boundary estimate is calculated by totaling the gray bar and black bar percentages. The space between the end of a black or gray bar and the 100% line is the percentage of NHPI youth identified with gifts and talents. A bar that ends above the 20% line does not meet the four-fifths criteria; in

other words, less than 80% of the NHPI youth that could/should have been identified with gifts and talents were identified.
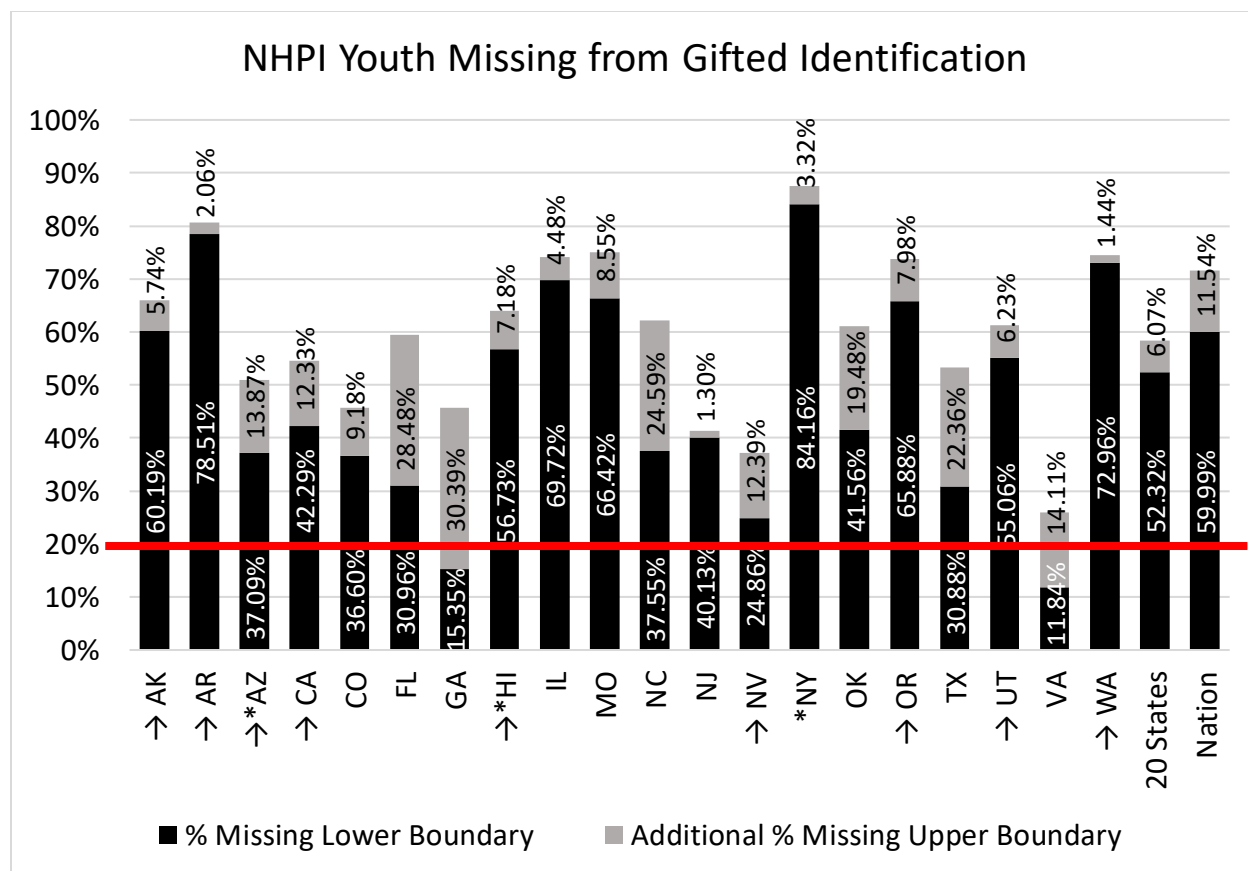
Figure 9. Percentage estimates of NHPI youth with gifts and talents missing from gifted identification by 20 states and nation at lower and upper boundary estimates, 2015–2016.

Note. * In these states, the state average identification rate is higher than the state average Non-Title I school identification. In these cases, the bars for % Missing Lower Boundary and the Additional % Missing Upper Boundary are reversed.
→ These states have the 10 largest proportions of NHPI students in their student enrollment among schools that identify students with gifts and talents.

Discussion

When students are categorized into racial groups, NHPI youth have the fewest numbers of any group in the United States comprising just 0.39% of the population of public-school children. However, trends concerning access, (in)equity, and missingness of NHPI students with gifts and talents are important regardless of their small population numbers.

Access and (In)Equity

Three states had inequitable access to identification for NHPI students (**AR, HI,** & **OR**). However, in 15 states, NHPI students had equal or better access than all students with ratios ranging from 1.00 to 1.31. Hawaii, with the largest percentage and number of NHPI students, had the least equitable access ratio (0.88) of the 20 states. Hawaii should examine their access especially in light of the fact that they have a mandate for identification and services, and they have more NHPI students than any other state. Further, Native Hawaiians created the public education system in 1841 (Hawaii State Department of Education, n.d.), prior to the seizure of their kingdom by the United States, so access to all services including gifted identification are justified for NHPI students.

Identification and (In)Equity

In Hawaii, Alaska, Nevada, and Washington, which ranked first, second, fourth, and fifth for percentage of NHPI students, NHPI youth in Title I schools were identified in greater percentages than those in Non-Title I schools (see Table 18). This is the opposite of the national trend highlighted by Gentry et al. (2019). But, 13 states (UT, **AR, OR, OK,** MO, NY, **CO, VA, FL, TX, NC, GA,** & **IL**) had inequitable ratios, ranging from 0.79 to 0.33, indicating fewer students identified in Title I schools than Non-Title I schools. This is adverse impact to NHPI youth in Title I schools. The results of the 13 states also align with findings that show school poverty concentration is negatively associated with student academic failure (Vanderhaar et al., 2006), academic attitudes, and motivation (Battistich et al., 1995).

Sixty-seven percent of the ratios in Table 19 (44 out of 66), comparing NHPI student identification rates to the identification rates of all students were inequitable. Hawaii, with the largest proportion and population of NHPI students, is among the 11 states with no ratios above 0.80, and seven of these states (**HI, AK, WA, AR, OR, AZ,** & **OK**) were in the top 10 states for proportion of NHPI students. Only five states showed no failing ratios of equity in the identification of NHPI youth (UT, NY, **NJ, VA,** & **GA**). Utah educates the third largest proportion and fourth largest number of NHPI students in the country, so this finding is important.

Inequitable representation is widespread, with 61% of the RIs in Table 20 (94 out of 154) below 0.80 and adversely impacting NHPI youth. There were no equitable RIs in Alaska, ranked second in proportion of NHPI students, Washington, ranked fifth in proportion, or across the national averages. Only Utah, ranked third in proportion and fourth in population of NHPI students had RIs above 0.80 in all school categories, with the exception of Rural schools where the RI was 0.68. Contrary to the findings of Kettler et al. (2015), there were more failing RIs across the states in City (14 failing RIs) and Suburb (11 failing RIs) schools, locales where Kettler found greater funding and staff provided for gifted education, than there were in Town and Rural schools (9 failing RIs each).

Missingness

As shown in Table 21, there were 6,594 NHPI youth with gifts and talents identified in 2015–2016 across our 20-state sample. We estimated there were an additional 7,236 (52.32%), at the lower boundary, to 9,253 (58.39%), at the upper boundary, NHPI youth with gifts and talents missing from identification. This means that more than half of the NHPI youth with gifts and talents who could/should have been identified were missing, and students who go unidentified will not receive services to enhance their education and help them reach their potentials. Missingness is talent lost, similar to that described by Wyner et al. (2007) as high achieving students from low-income families fall out of high achievement without appropriate services. Only two states, Georgia and Virginia, identified at least 80% of the NHPI students (who should have been identified) as gifted. All other states at the lower boundary estimate, and all states at the upper boundary estimate, were missing percentages of NHPI students with gifts and talents at rates ranging from 24.86% (**NV** lower boundary) to 87.48% (NY lower boundary; in NY the state average identification rate is higher than the state average Non-Title I school identification rate). Clearly going unidentified has adverse effects on these students.

Limitations

Because Native Hawaiian and other Pacific Islander students are a small proportion of the student population, they are often invisible in the literature and in the classroom. Although we undertook this study with the intention to bring visibility to NHPI youth, we had to limit our

analyses to 20 states and 89.44% of the student population due to small state enrollments because in our analysis the small numbers yielded unstable results.

The Civil Rights Data Collection is limited to the data reported to OCR by schools. It is possible that school data were not accurate with possible over- and under-reporting of students identified with gifts and talents, as well as other data errors. In data sets we used, approximately 2% of schools did not have a locale reported and close to 5% did not have a Title I status reported. This meant these schools and the students attending them were excluded from analyses requiring these variables. Furthermore, schools were only required to report on students' gifted education identification. No information about the gifted education programming or practices in schools are included in the data. The quantity and/or quality of such programming is unknown.

Future Research

Because we were only able to analyze the data for 20 states, there could be individual school districts with large proportions of NHPI students among the remaining 30 states or the District of Columbia. Analyses in the same style as done here could be performed at the district level data to find trends and compare them with those found in this study.

It would be worthwhile to look deeper into practices among the states that had some positive identification trends for NHPI youth. These states include Nevada, Virginia, Georgia, and Utah. This may reveal policies and procedures that have led to greater equity of identification for NHPI youth. Intervention research and policy implementation research in places like Hawaii and Virginia could serve to mitigate the inequities of access, identification, and to address missingness, thereby adding NHPI students to services for youth with gifts and talents.

<div align="center">

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CHAPTER 5. DISCUSSION AND CONCLUSION

It is my hope that these analyses have caused readers, educators, academics who are not members of these minoritized groups discomfort, a tension, a chafing of facts against the privilege that has shielded them from these experiences. I encourage readers to sit with this tension and discomfort. Consider it a shadow on the wall of Plato's Cave while the true tension is a relentless presence in the lives of those without the shield [privilege] as they navigate the U.S. education system. I hope readers will reflect on the resiliency expected of minoritized children as they willingly return to this place of tension day-in and day-out, to once again be passed over as their gifts and talents are underrecognized, underappreciated, and underdeveloped. Then I hope the readers will take this discomfort and turn it into actions to mitigate these inequities, to recognized these invisible, yet talented, children, to improve the school so that children from underserved groups can benefit equitably from talent development services

Trends in Results

Access.

At the national level, access to identification is, in general, *not* a factor in the underrepresentation of these minoritized youth with gifts and talents. However, there are states among each of the minoritized groups where access *is* a factor in underrepresentation.

Title I Status.

As identified by Gentry et al. (2019), Title I schools identify students with gifts and talents at lower rates than do Non-Title I schools. In 2015-2016 the national average rate of identification in Title I schools was 7.86% and in Non-Title I schools the rate was 13.46%. This inequity in the identification of students is related to the wealth versus lack of wealth within schools. From two-thirds to more than three-quarters of these minoritized students (Black, Latinx, and NHPI) had less opportunity to be identified with gifts and talents because they attended Title I schools. Additionally, Title I schools failed at equitable representation, not

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meeting the 80% criterion for these youth. However, representation in Title I schools trended closer to the criterion for equity than did the representation in Non-Title I schools.

School Locale.

With evidence showing a greater lack of gifted education resources in Town and Rural schools, and more resources in City and Suburb schools, logic follows that students with gifts and talents would benefit from attending City and Suburb schools. But, our research showed widespread inequity of identification and representation of these minoritized students in schools in City and Suburb locales. Yet, along with this challenge lies an opportunity. Between 78% and 81% of these minoritized students attended City and Suburb schools. These students with gifts and talents already attend the schools where there are greater resources for gifted education.

Minoritized Students.

From Gentry et al.'s (2019) research we know that missingness affects students from all groups, but not all groups are affected equally. Minoritized youth with gifts and talents are missing at greater percentages. For Black, Latinx, and NHPI students, between 52% (NHPI, lower boundary) and 74% (Black, upper boundary) of students with gifts and talents are missing from identification. Think about that. This means that for every Black child identified with gifts and talents, another three are missing. The policies and practices that result in adverse impact, segregation, and discrimination are larger structural issues, and not just issues of individual states. The vast disparity in the equity and identification of minoritized youth with gifts and talents reflects the excellence gap. Further, it is a clear example of the *education debt*; the compounding of decades of history, moral decisions, and sociopolitical and economic policies which annually spin off an identifiable consequence known as the achievement/excellence gap (Ladson-Billings, 2006).

<center>Future Research</center>

I have been working with the CRDC data for close to three years now. As it is a biennial report, with all public schools required to submit data, I look forward to adding the 2017-2018 report and updating the analyses. Conference presentations of these data have received pushback

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from some educators indicating their states have implemented changes to policies resulting in greater equity of identification. I hope to be able to confirm their belief about improved and positive outcomes for minoritized students with gifts and talents in their states.

Some states emerged as bright spots in the equity and identification of minoritized youth with gifts and talents (i.e., Arkansas for Black students; Florida and Texas for Latinx students; Utah and Nevada for NHPI students). An exploration into the school and district level data and the policies and procedures affecting gifted education in these states could serve as exemplars for other states seeking to rectify the inequities in their gifted education programs. I am also interested in exploring why only one minoritized group in these state is doing well, but not all minoritized groups.

Having worked with longitudinal data that supports Ladson-Billings' (2006) concept of the *education debt,* I anticipate the school closures resulting from Covid-19 to have a greater effects than previous years' *education deficits*. It also came as no surprise that Covid-19 revealed a *health debt*; the compounding of decades of history, moral decisions, and sociopolitical and economic policies related to health fields. As has been reported, Corona virus has affected minoritized communities with greater rates of infection and higher rates of morbidity. A future project in which I am very interested involves a multidisciplinary study of the educational effects of Covid-19 on minoritized students with gifts and talents and the health implications and effects of Covid-19 on minoritized communities. Could analyses of these areas help identify larger structural issues which support and maintain the adverse impact, segregation, and discrimination experienced by minoritized peoples?

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