

## IMPACT OF SAME-RACE TEACHER MATCH ON STUDENT OUTCOMES

Study	Data Collection and Analysis	Findings
<p><a href="#"><u>Exposure to Same-Race Teachers and Student Disciplinary Outcomes for Black Students In North Carolina</u></a> <i>Educational Evaluation and Policy Analysis</i> Lindsay, A. &amp; Hart, C. 2017 <b>Setting/ Geography:</b> North Carolina</p>	<p>Analysis of administrative data and disciplinary records for students in grades 1-12 attending North Carolina public schools from 2007–2008 to 2012–2013. The analysis focuses on Black students because they experience exceptionally high exclusionary discipline rates. The sample includes more than 2 million students.</p>	<p>If the overall percentage of the Black teaching force were to increase from the current 22 percent to 50 percent, Black students would see roughly a ½ percentage point decline in the likelihood of exclusionary discipline on average. Given that only 11 – 35 percent of students receive exclusionary discipline, one percentage point would represent a decline in suspension of between 3 and 9 percent.</p>
<p><a href="#"><u>Teacher And Principal Diversity And The Representation Of Students Of Color In Gifted Programs: Evidence From National Data</u></a> <i>The University of Chicago Press</i> Grissom, J.A., Kern, E.C., &amp; Rodriguez, L.A. 2017 <b>Setting/ Geography:</b> Nationwide (U.S.)</p>	<p>Uses Schools and Staffing Survey (SASS) and survey data collected by the Office for Civil Rights (OCR) in the 2003–2004 school year and again in 2011–2012 to determine whether there is an association between teacher and principal diversity and representation of students of color in gifted programs. Total sample size of 2,170 elementary schools across the U.S. with gifted programs that can be matched between the two samples.</p>	<p>Schools with larger numbers of Black and Hispanic teachers have greater representation of Black and Hispanic students in gifted programs, with increasing rates of representation correlated to the percentage of Black or Hispanic teachers. For example, a 10 percent increase in Hispanic teachers is associated with a 3.1 percent increase in Hispanic gifted students and a 10 percent increase in the percentage of Black teachers in a school is associated with a 3.2 percent increase in Black gifted students. Schools with Black principals also show a 3.8 percent increase in Black representation in the school's gifted program.</p>
<p><a href="#"><u>The Long-Run Impacts Of Same-Race Teachers</u></a> <i>IZA Discussion Paper No. 10630</i> Gershenson, S., Hart, C. M. D., Lindsay, C. A., &amp; Papageorge, N. W. 2017 <b>Setting/ Geography:</b> North Carolina</p>	<p>Uses longitudinal administrative data from North Carolina Education Research Data Center (NCERDC) on all public school students in North Carolina who entered third grade between 2001 and 2005. Tracks this cohort of students through their senior year in high school, including students who may have graduated a year ahead or behind schedule, and links student-level records to teacher identifiers to evaluate if exposure to same-race teacher has long term effects on students.</p>	<p>Exposure to a same-race teacher during elementary school reduces the high school dropout rate for economically disadvantaged Black male students by about 39 percent. It also increases college aspirations and the probability of taking a college entrance exam.</p>
<p><a href="#"><u>Unconscious Bias In The Classroom: Evidence And Opportunities</u></a> <i>Google's Computer Science Education Research</i> Dee, T., &amp; Gershenson, S 2017 <b>Setting/ Geography:</b> Various</p>	<p>Analysis of research on implicit/unconscious bias and its impact on educational outcomes, particularly in computer science and STEM courses.</p>	<p>The unconscious biases of teachers and school leaders lead to underrepresentation of women and minorities in computer science and STEM. These biases have been confirmed in various studies including one where professors were sent emails from fictitious prospective doctoral students to professors asking to meet. White male students received more, and faster, responses than female and non-White students in computer science and STEM. Implicit association tests also find that both genders unconsciously associate men with hard sciences and women with the liberal arts. While asking teachers to suppress bias has been shown to be counterproductive, teacher-focused interventions (both pre- and in-service) offer a promising and scalable way to positively reshape classroom context to be more supportive for all students.</p>
<p><a href="#"><u>Discretion And Disproportionality: Explaining The Underrepresentation Of High-Achieving Students Of Color In Gifted Programs</u></a> <i>American Educational Research Association (AERA Open)</i> Grissom, J.A. &amp; Redding, C. 2016 <b>Setting/ Geography:</b> Nationwide (U.S.)</p>	<p>This study uses data collected in the elementary grades (kindergarten, first, third, and fifth grades) when most gifted students are identified. The dataset comes from the restricted-use version of the ECLS-K, a nationally representative sample of 21,260 kindergarteners in the 1998–1999 school year. Students in the sample were followed by the National Center for Educational Statistics through eighth grade. The sample is restricted to students in public schools that report having a gifted program in either reading or math.</p>	<p>Even among students with high test scores, the odds of a Black student being referred to a gifted program are 66 percent lower than those of a White student. The odds of a Hispanic student being referred to a gifted program are 47 percent lower than those of a White student. However, Black teachers were three times more likely to assign Black students to gifted programs in both math and reading.</p>
<p><a href="#"><u>The Effects Of Teacher Match On Students' Academic Perceptions And Attitudes</u></a> <i>American Education Research Association (AERA Open)</i> Egalite, A. &amp; Kisida, B. 2016 <b>Setting/ Geography:</b> Six urban school districts: Charlotte-Mecklenburg Schools (NC), Dallas Independent School District (TX), Denver Public Schools (CO), Hillsborough County Public Schools (FL), Memphis City Schools (TN), &amp; New York City Department of Education (NY)</p>	<p>Uses data provided by the MET project, funded by the Bill and Melinda Gates Foundation, which tracked approximately 3,000 teachers in six school districts across the United States (NC, TX, CO, FL, TN, NY) over the 2009–2010 and 2010–2011 school years. Estimates how assignment to a demographically similar teacher affects student reports of personal effort, happiness in class, feeling cared for and motivated by their teacher, the quality of student-teacher communication, and college aspirations.</p>	<p>In classrooms where students share gender and/or racial characteristics with their teachers, reports of happiness in class, feeling cared for and motivated by their teacher, and the quality of student-teacher communication is increased. Students also report putting forth more personal effort and have higher college aspirations. The largest benefits are demonstrated by Black male students assigned to Black male teachers and by Black female students assigned to Black female teachers.</p>

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<p><b><u><a href="#">The Importance Of Minority Teachers: Student Perceptions Of Minority Versus White Teachers</a></u></b> <i>Educational Researcher</i> Cherng, H.S. &amp; Halpin, P.F. 2016 <b>Setting/ Geography:</b> Six urban school districts: Charlotte-Mecklenburg Schools (NC), Dallas Independent School District (TX), Denver Public Schools (CO), Hillsborough County Public Schools (FL), Memphis City Schools (TN), &amp; New York City Department of Education (NY)</p>	<p>Secondary analysis of the Measures of Effective Teaching (MET) study, an extensive survey that asked students about their perceptions of individual teachers' instructional practices. This study focuses on MET data for teachers and students in 6th-9th grades in the first year of the MET study.</p>	<p>There is consistent evidence that students from all demographics have more positive perceptions of Black and Latino teachers than White teachers. In rating teachers across seven domains, Latino teachers are perceived more positively than White teachers across all seven and Black teachers are perceived more positively than White teachers across four domains. In some cases, perceptions of Black and Latino students depend on a race/ethnicity match with their teacher. For example, Black students have particularly favorable perceptions of Black teachers, but the same is not true for Latino students and Latino teachers.</p>
<p><b><u><a href="#">Who Believes In Me? The Effect Of Student-Teacher Demographic Match On Teacher Expectations.</a></u></b> <i>Economics of Education Review</i> Gershenson, S., Holt, S. B., &amp; Papageorge, N. W. 2016 <b>Setting/ Geography:</b> Nationwide (U.S.)</p>	<p>Uses data from Education Longitudinal Study of 2002 (ELS) conducted by the National Center for Education Statistics to investigate whether or not student-teacher demographic mismatch affects high school teachers' expectations for students' educational attainment. Total sample of 16,810 student-teacher dyads, each containing exactly two teacher expectations about future educational attainment for each student.</p>	<p>NonBlack teachers were 12 percentage points less likely than Black teachers to expect Black students to complete a four-year college degree.</p>
<p><b><u><a href="#">Representation In The Classroom: The Effect Of Own-Race Teachers On Student Achievement</a></u></b> <i>Economics of Education Review</i> Egalite, A., Kisida, B., &amp; Winters, M. A. 2015 <b>Setting/ Geography:</b> Florida</p>	<p>Analysis of student-level data from nearly three million Florida students in grades 3-10. The dataset follows students over a period of seven years and tracks progress as they are assigned to teachers, looking at correlations between achievement and student/teacher demographics.</p>	<p>Assignment to an own-race/ethnicity teacher shows significant positive impacts for students on both reading (.001 SD) and math (.008 SD) assessments in grades 3-10. In particular, lower-performing Black and White students benefit from having a same race teacher in both reading (.006 SD) and math (.007 SD).</p>
<p><b><u><a href="#">Teachers' Perceptions Of Students' Disruptive Behavior: The Effect Of Racial Congruence And Consequences For School Suspension</a></u></b> Wright, A. C. 2015 <b>Setting/ Geography:</b> Nationwide (U.S.)</p>	<p>Using data from the Early Childhood Longitudinal Study, this study looks at the correlations between non-cognitive skills, suspension rates, race of both students and teachers.</p>	<p>Teachers evaluations of Black students' disruptive behavior improve by about 0.24 standard deviations in classrooms with Black teachers. A 30 percentage point (one standard deviation) increase in exposure to Black teachers is associated with a 10.5-14.0 percentage point reduction in the probability of being suspended by eighth grade. This represents a 28-38 percent decrease in the average Black suspension rate.</p>
<p><b><u><a href="#">The Impact Of Teacher Demographic Representation On Student Attendance And Suspension</a></u></b> <i>IZA Discussion Paper No. 9554</i> Holt, S. B., &amp; Gershenson, S. 2015 <b>Setting/ Geography:</b> North Carolina</p>	<p>Uses student-level longitudinal administrative data from the North Carolina Education Research Data Center (NCERDC) on K-5 students in North Carolina's public schools between 2006 and 2010. Also includes data on student and teacher demographics (i.e., race and sex) and annual tallies of students' total absences, excused and unexcused absences, and total suspensions to determine whether or not there is an association between student-teacher demographic similarity and student suspensions and absences. Total sample size of 1,028,885 students and 43,708 teachers.</p>	<p>Student-teacher racial mismatch increases the likelihood that a student will be chronically absent by 3 percent. This can have negative impacts on students' long-term success given that chronically absent students perform 14 percent worse in developing literacy skills in kindergarten than their counterparts with average absences and, by fourth grade, chronic absenteeism accounts for about 17 percent of the achievement gap between White and nonWhite students. In addition, students assigned to other race teachers are suspended 0.01 more times per year, a more than 19 percent increase in annual suspensions in the sample group.</p>
<p><b><u><a href="#">The Theoretical And Empirical Arguments For Diversifying The Teacher Workforce: A Review Of The Evidence</a></u></b> <i>CEDR Policy Brief, Working Paper #2015-9</i> Goldhaber, D., Theobald, R., &amp; Tien, C. 2015 <b>Setting/ Geography:</b> Various</p>	<p>This piece reviews several studies that examine the impact of a diverse workforce on student achievement. The studies included were conducted in various states across different time periods ranging from 1998 to 2015.</p>	<p>In various studies, students taught by a teacher of the same race scored 0.03-0.11 standard deviations higher in mathematics and 0.02-0.06 standard deviations higher in reading than students who were assigned to a teacher of different race. These effects were largest when Black students were assigned to a Black teacher (0.04 standard deviations higher in both reading and mathematics than Black students with a White teacher).</p>

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<p><a href="#"><u>Assessed By A Teacher Like Me: Race And Teacher Assessments</u></a> Ouazad, A. 2014 <i>Education Finance and Policy</i> <b>Setting/ Geography:</b> Nationwide (U.S.)</p>	<p>Analysis of data from one cohort from the Early Childhood Longitudinal Study (collected by the National Center for Education Statistics) which follows a cohort of children from kindergarten entry to middle school. Ouazad compares teacher assessments to student test scores to highlight the fact that the teachers' races determine their perceptions of students' skills.</p>	<p>On average, elementary students who are assessed by a same-race teacher perform 0.07 standard deviations higher on mathematics assessments and 0.04 standard deviations higher on reading assessments. The effect is mainly due to lower grades given to Black and Hispanic children by White teachers.</p>
<p><a href="#"><u>Race, Gender, And Teacher Testing: How Informative A Tool Is Teacher Licensure Testing?</u></a> <i>American Educational Research Journal</i> Goldhaber, D., &amp; Hanse, M. 2009 <b>Setting/ Geography:</b> North Carolina</p>	<p>Analysis of teacher licensure tests as a predictor of teacher effectiveness. The study includes an analysis of the relationship between teacher performance on licensure tests (PRAXIS II) and teacher demographics as well as whether diversity in the teaching force influences student learning gains. Data analyzed in the study comes from the North Carolina Department of Public Instruction administrative records.</p>	<p>Black and other nonWhite students demonstrate more positive student outcomes when matched with a Black teacher regardless of how well that teacher performed on teacher licensure tests. In fact, the positive effects of having a Black teacher (even with a low licensure score) are comparable to having the White teachers with the highest licensure test scores.</p>
<p><a href="#"><u>A Teacher Like Me: Does Race, Ethnicity, Or Gender Matter?</u></a> <i>The American Economic Review</i> Dee, T. 2005 <b>Setting/ Geography:</b> Nationwide (U.S.)</p>	<p>Analysis is based on a data from the National Education Longitudinal Study of 1988 (NELS:88) which surveyed students and teachers in both public and private schools. The researcher examines the effects of student-teacher demographic matches for 8th graders in two distinct subject areas. Specifically, the analysis looks at teacher perceptions of student behavior and how they relate to student achievement.</p>	<p>Students are 36 percent more likely to be perceived as disruptive and 33 percent more likely to be perceived as inattentive when the teacher does not share the student's race/ethnicity. These odds are respectively 19 and 38 percent higher when the teacher is of the opposite gender. These negative perceptions are especially prevalent among students of low socioeconomic status students and students in the South.</p>
<p><a href="#"><u>Teachers, Race, And Student Achievement In A Randomized Experiment</u></a> <i>The Review of Economics and Statistics</i> Dee, T. 2004 <b>Setting/ Geography:</b> Tennessee</p>	<p>Evaluates test score data from Tennessee's Project STAR class-size experiment, which randomly matched students and teachers within participating schools, to determine whether or not there is an association between exposure to a same-race teacher and student achievement.</p>	<p>Assignment to a same-race teacher for one year increased the math and reading achievement of both Black and White male students by about 3-4 percentage points.</p>
<p><a href="#"><u>Teachers' Perceptions And Expectations And The Black-White Test Score Gap</u></a> <i>Urban Education</i> Ferguson, R. F. 2003 <b>Setting/ Geography:</b> Various</p>	<p>Research review</p>	<p>Teacher perceptions work to sustain and perhaps expand the achievement gap. For example, although teachers' perceptions of sixth graders' math performance in October did not contain a racial bias, the impact of teachers' October perceptions on May math scores was almost 3 times larger for Blacks than for Whites. If teachers perceive that Black students have less potential than White students, they will be less likely to find ways to help Black students improve and miss opportunities to close the achievement gap.</p>

## TEACHER PIPELINE DIVERSITY AND POLICY RECOMMENDATIONS

Study	Data Collection and Analysis	Findings
<p><b><u>Will Stricter Education Requirements For Early Childhood Educators Hurt Teacher Diversity?</u></b>  <i>Urban Wire: Education and Training</i>            Blom, E., Greenberg, E., &amp; Lindsay, C.A.            2018  <b>Setting/ Geography:</b> Nationwide (U.S.)</p>	<p>Analysis of 2015 American Community Survey and the National Household Education Surveys Program (2016).</p>	<p>The racial and ethnic demographics of early childhood education (ECE) workers is very similar to the children they serve. Roughly half of center- and family-based child care workers and teaching assistants and one-third of preschool teachers and private home-based child care workers are people of color. Nonetheless, ECE jobs require less education and typically offer less compensation (over 80 percent of Black and Hispanic ECE workers hold less than a bachelor's degree). A movement towards higher certification requirements could cause teacher diversity to suffer if financial and other supports are not put in place to help ECE workers achieve these credentials.</p>
<p><b><u>America Needs More Teachers Of Color And A More Selective Teaching Profession</u></b>  <i>Center for American Progress</i>            Brown, C., Johnson, S., Partelow, L., &amp; Spong, A.            2017  <b>Setting/ Geography:</b> Various</p>	<p>Examines several states, institutions and organizations that have increased the selectivity of their teaching forces while also maintaining or increasing its diversity.</p>	<p>Between 2006 and 2014, nine states increased the selectivity of their examinations for entry into teacher preparation programs. In all but one state, the diversity of undergraduate education majors grew following the increases in selectivity. While these changes were closely correlated with the increasing diversity of the states' overall undergraduate student bodies, in some cases, the growth in diversity among education majors exceeded the rate of growth in the student body overall. For example, in Georgia, the percentage of students of color among education majors grew 14 percent compared to a 10 percent increase in the overall student body. In Iowa, while the diversity of the overall student body decreased by 2 percent, the percentage of students of color majoring in education increased by 15 percent.</p>
<p><b><u>Diversifying the Classroom: Examining the Teacher Pipeline</u></b>  <i>Urban Institute</i>            Blom, E., Lindsay, C.A., &amp; Tilsley, A.            2017  <b>Setting/ Geography:</b> Nationwide (U.S.)</p>	<p>Analysis of the 2015 American Community Survey Public Use Microdata Sample data as provided by the Center for Economic and Policy Research.</p>	<p>Studies show that students perform better when they have at least one same-race teacher. Still, in 2015, nearly half of students were nonWhite while less than a quarter of teachers were people of color. A first step to remedy this is getting people of color to and through college to expand the pool of potential teachers. For example, Hispanic college graduates become teachers at almost the same rate as White college graduates, yet Hispanic young adults don't go to or graduate from college at nearly the same rate as White young adults, resulting in a smaller overall hiring pool (4.4 percent of White adults were teachers, but only 1.5 percent of Hispanic adults were in the profession).</p>
<p><b><u>Teachers Of Color Are Less Likely To Be Teaching Than Their White Counterparts</u></b>  <i>Urban Wire: Education and Training</i>            Lindsay, C.A.            2017  <b>Setting/ Geography:</b> Nationwide (U.S.)</p>	<p>Analysis of the 2012-2013 Teacher Follow-Up Survey, a nationally representative survey administered by the U.S. Department of Education. Data from the 2011-2015 American Community Survey is also included.</p>	<p>Despite well-documented evidence of teacher shortages, teachers of color are underrepresented at all stages of the human capital pipeline. For example, teachers of color leave the teaching profession at a higher rate than White teachers (8.3 percent vs. 7.5 percent) and also change schools at a higher rate (10.6 percent versus 7.5 percent). Early career teachers of color (ages 25-34) also report unemployment rates more than double those of their White peers.</p>
<p><b><u>The State of Racial Diversity in The Educator Workforce</u></b>            U.S. Department of Education            Office of Planning, Evaluation and Policy Development, Policy and Program Studies Service            2016  <b>Setting/ Geography:</b> Nationwide (U.S.)</p>	<p>Analysis of research from various publications and data collected by the US Department of Education's National Center for Education Statistics on teacher diversity.</p>	<p>Despite evidence that diversity in the teaching force positively impacts students, PreK-12 educators in the United States are overwhelmingly white (82 percent white in public schools) and the proportion of teachers of color has only increased slightly (from 13 percent in 1987 to 18 percent in 2011). By 2024, students of color are expected to make up 56 percent of the student population. To meaningfully increase diversity and better serve students, we must make changes at various points in the teacher pipeline including how we prepare, recruit, select, place, and retain teachers of color.</p>
<p><b><u>Time For A Change: Diversity In Teaching Revisited</u></b>  <i>National Education Association Center for Great Public Schools, Teacher Quality Department</i>            Dilworth, M. E., &amp; Coleman, M. J.            2014  <b>Setting/ Geography:</b> Nationwide (U.S.)</p>	<p>Review of reseach commissioned by the National Education Association (NEA) with the goal of reviewing teacher diversity and determining ways to better create parity in schools.</p>	<p>The number of minority students has increased over the last three decades while the number of minority teachers has decreased. Nationwide, only 18 percent of PreK-12 teachers are teachers of color, and even in large urban areas a gap persists. For example, a Black male student, who will have about 55 teachers from kindergarten to 12th grade, could expect to have one Black male teacher in Detroit and three Black male teachers in Memphis. Thus, the recruitment and retention of teachers of color requires deliberate action as policy changes alone are failing to ensure a diverse teacher workforce.</p>
<p><b><u>Assessment Of Diversity In America's Teaching Force</u></b>            National Collaborative on Diversity in the Teaching Force            2004  <b>Setting/ Geography:</b> Nationwide (U.S.)</p>	<p>This piece is a review of three reports commissioned by the National Collaborative on Diversity in the Teaching Force. The reports focus on recruiting teachers of color, state-by-state policies for diversity in teacher recruitment, and the presence and performance of teachers of color in the classroom.</p>	<p>Increasing the percentage of teachers of color in classrooms is connected directly to closing the achievement gap. Still, in 2001, 60 percent of public school students were White, 17 percent Black, 17 percent Hispanic, 5 percent of other races. By contrast, 90 percent of public school teachers were White, 6 percent Black, and fewer than 5 percent of other races while 40 percent of schools had no teachers of color on staff. Across the states, the larger the percentage of students of color is, the greater the disparity with the percentage of teachers of color. While teacher quality has become a central element of school reform, significantly more resources need to be allocated to the recruitment, preparation and support of a qualified, diverse and culturally competent teaching force.</p>