



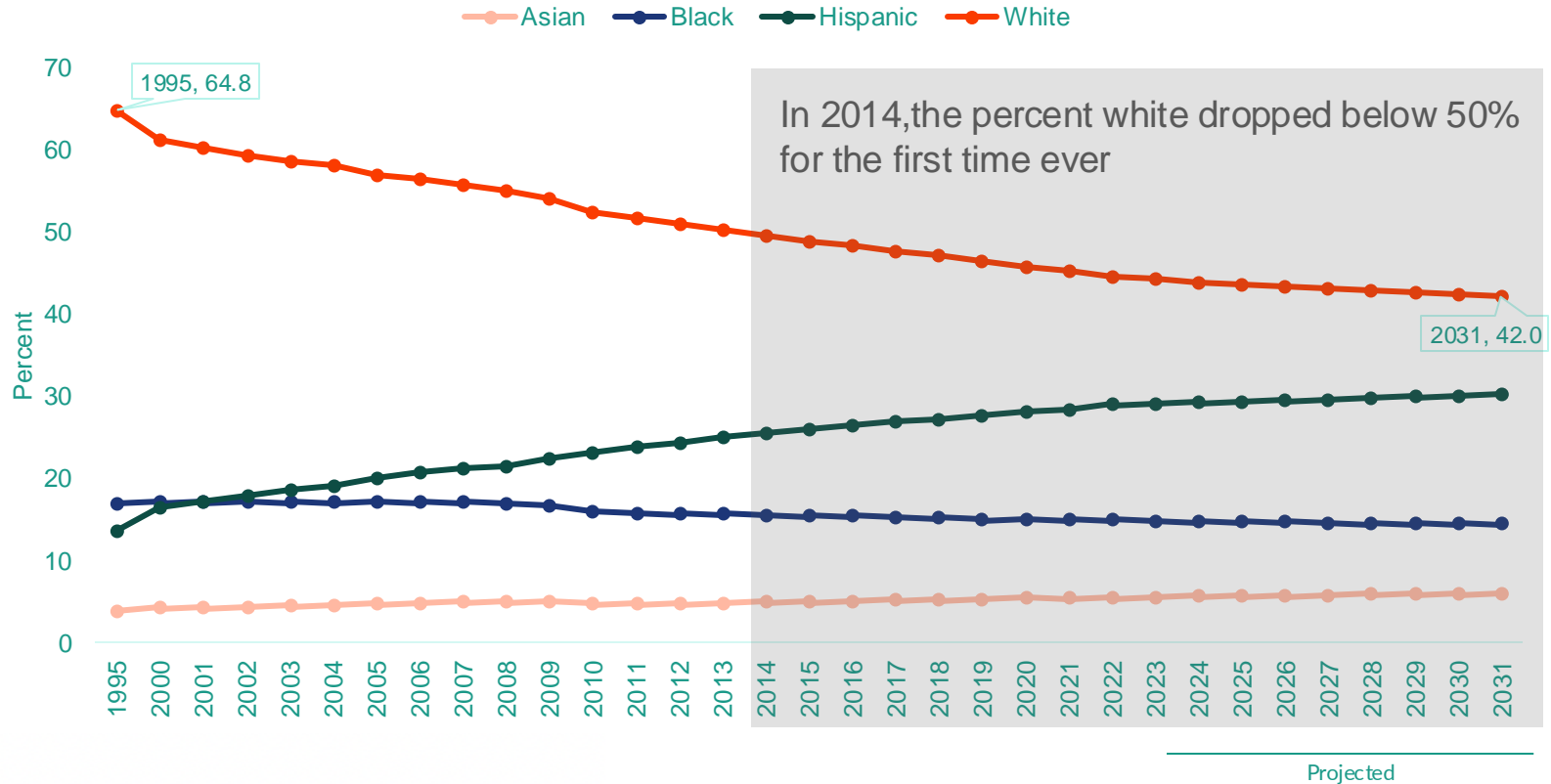
Ethnoracial Matching: What We Know And Where To Go Next

Anna J. Egalite
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*Prepared for the PEPG Education Policy Colloquium,
Harvard Kennedy School, Feb 13, 2025*

The demographic transformation in America's classrooms

Major Changes Among Students



Source: "State Nonfiscal Survey of Public Elementary and Secondary Education," 1995-96 through 2022-23; and National Elementary and Secondary Enrollment by Race/Ethnicity Projection Model, through 2031

EQUITY & DIVERSITY

U.S. School Enrollment Hits Majority-Minority Milestone

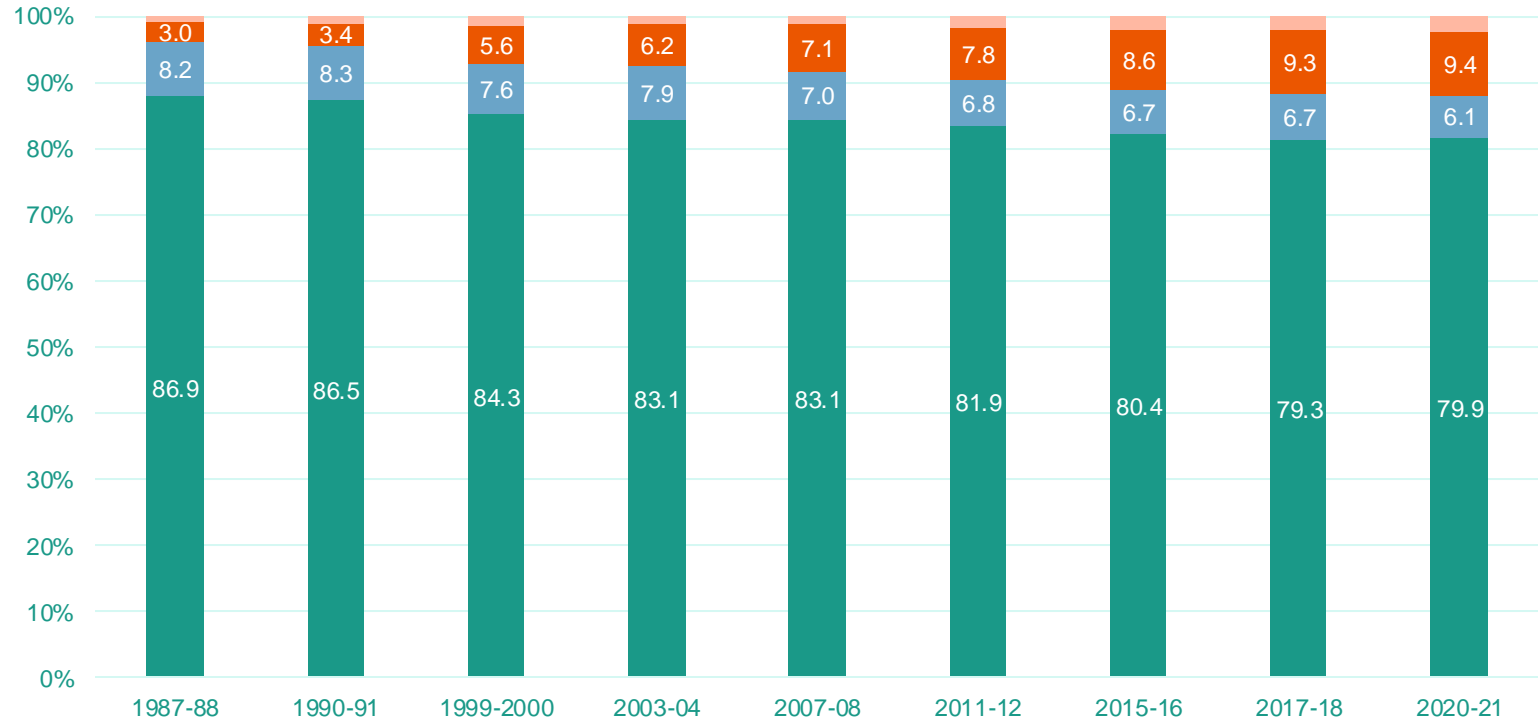


By [Lesli A. Maxwell](#) — August 19, 2014 ⌚ 11 min read



“The enrollment milestone underscores a host of challenges for educators, including more students living in poverty, more who will require English-language instruction, and more whose life experiences will differ from those of their teachers, who remain overwhelmingly white.”

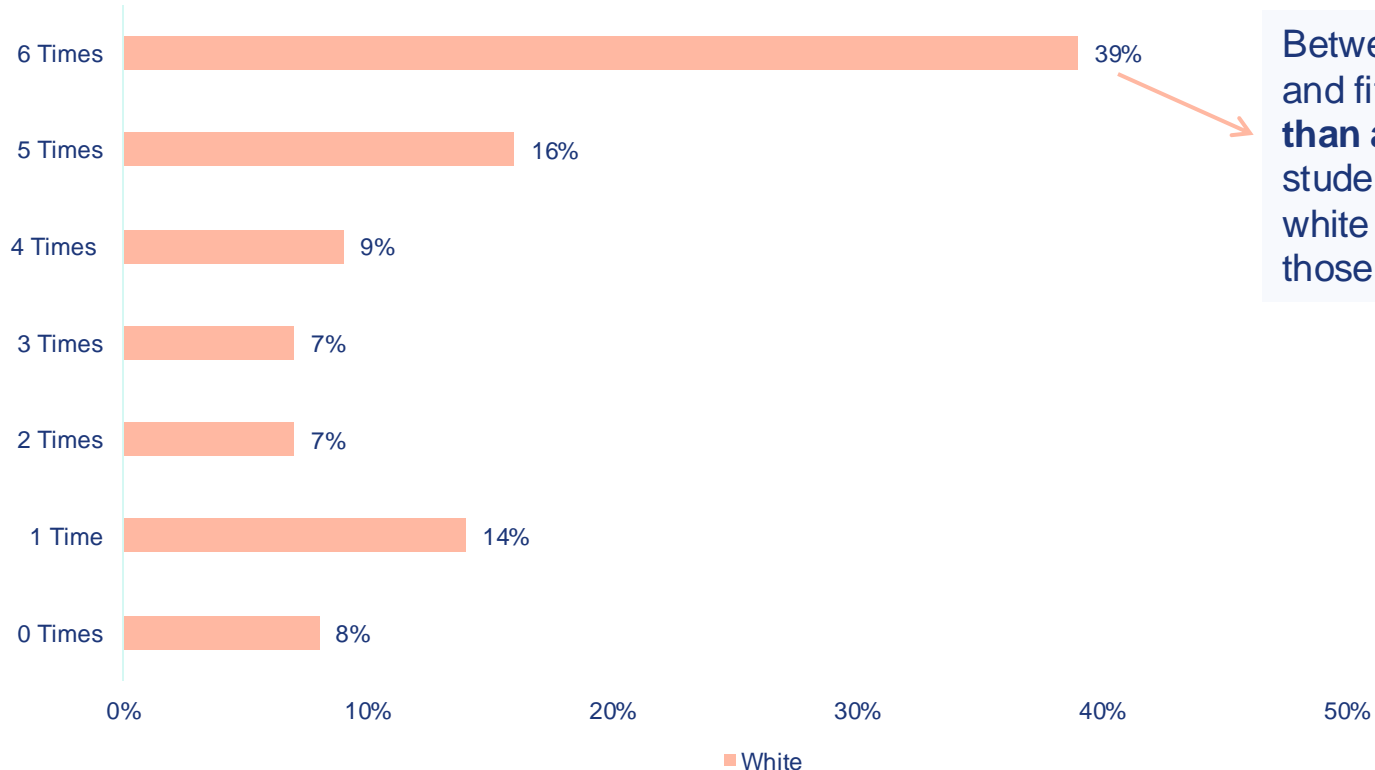
Little Change in Teacher Demographic Characteristics



■ White ■ Black ■ Hispanic ■ Asian

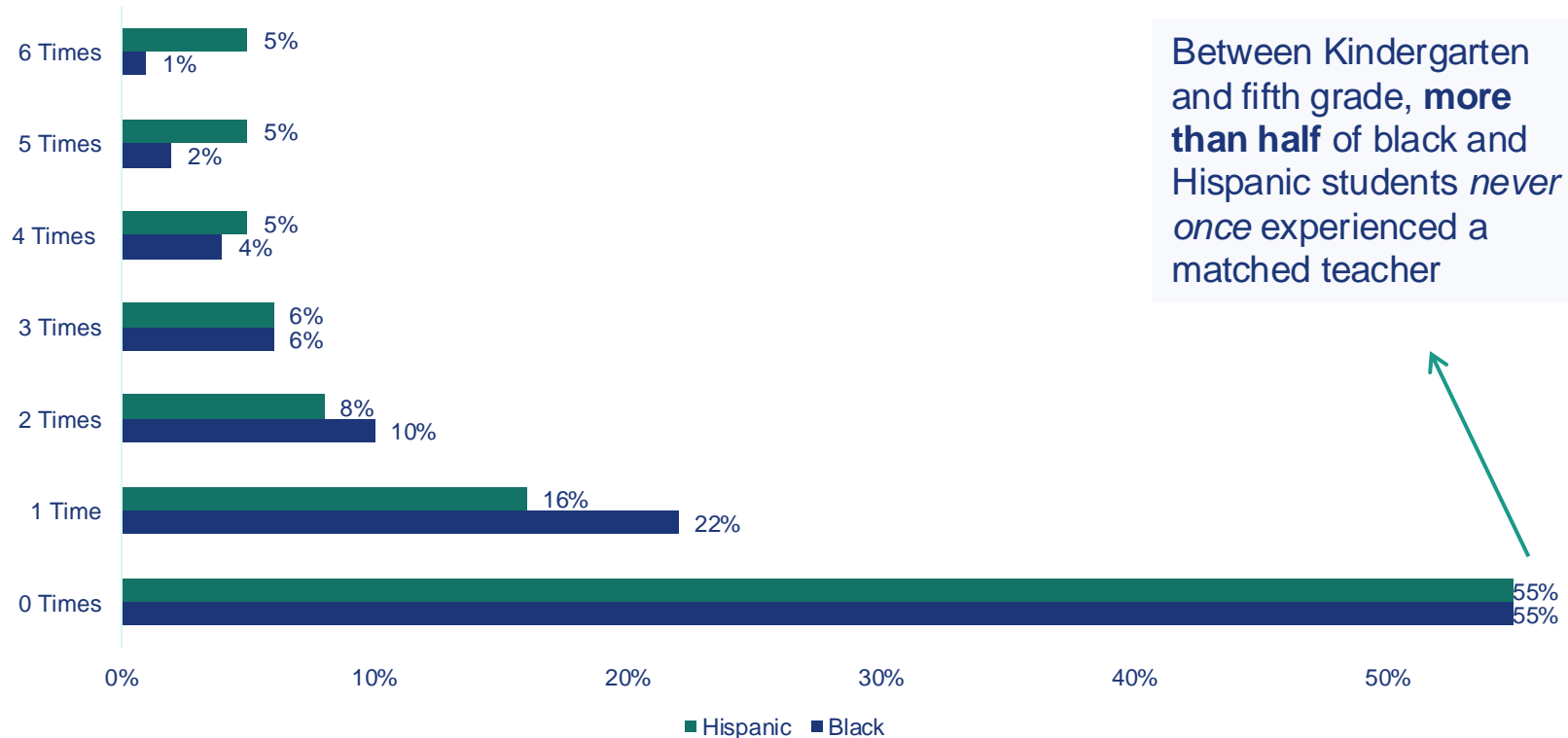
**Implications of a teacher workforce
that's dominated by a single racial
group?**

Prevalence of Student-Teacher Ethnoracial Matching for White Students



Between Kindergarten and fifth grade, **more than a third** of white students experienced a white teacher in all six of those years

Prevalence of Student-Teacher Ethnoracial Matching for Black and Hispanic Students



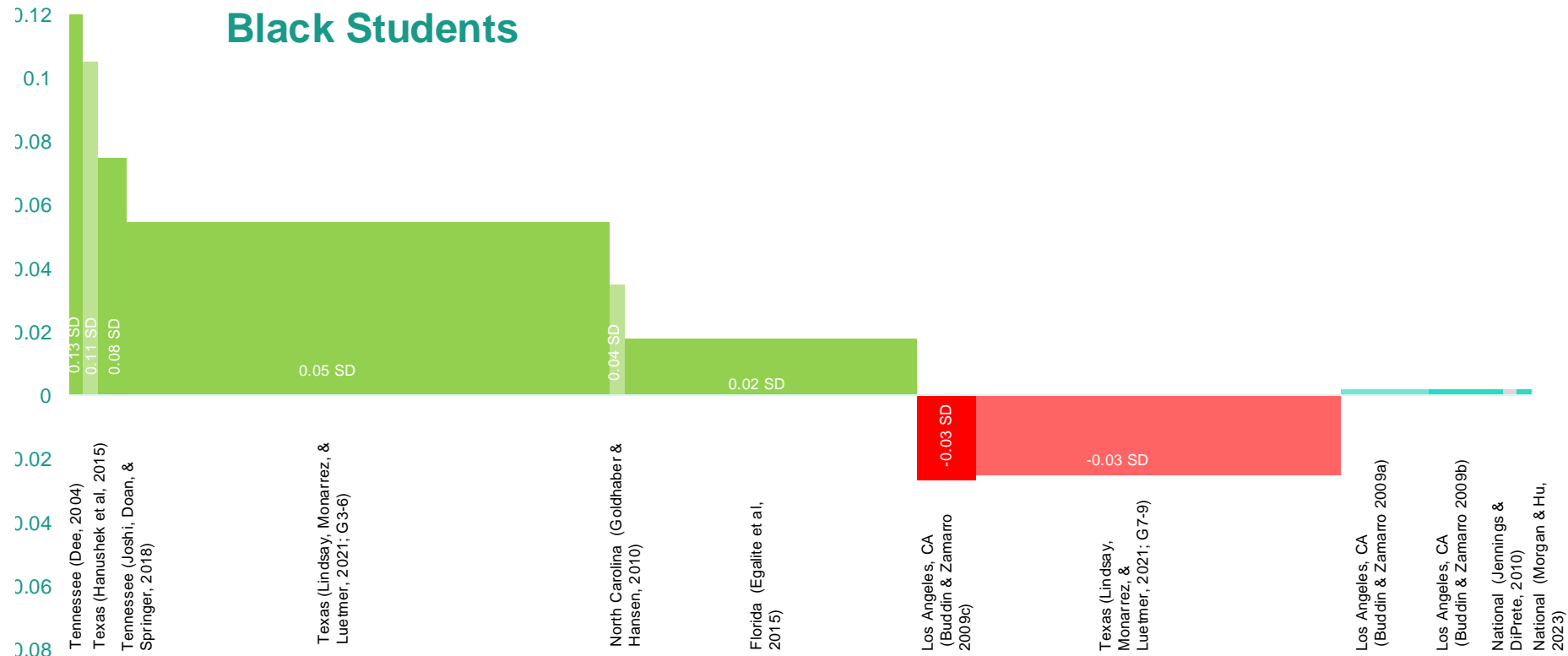
What we know from the literature

The evidence base supporting initiatives to diversify the teacher workforce stems from a 2004 study of elementary-school students in Tennessee. Dee found that when students were randomly assigned to classrooms led by a same-race teacher, their math and reading achievement improved by 3 to 4 percentile points.

In the years since, a significant body of research has accumulated on the effects of race-matching.

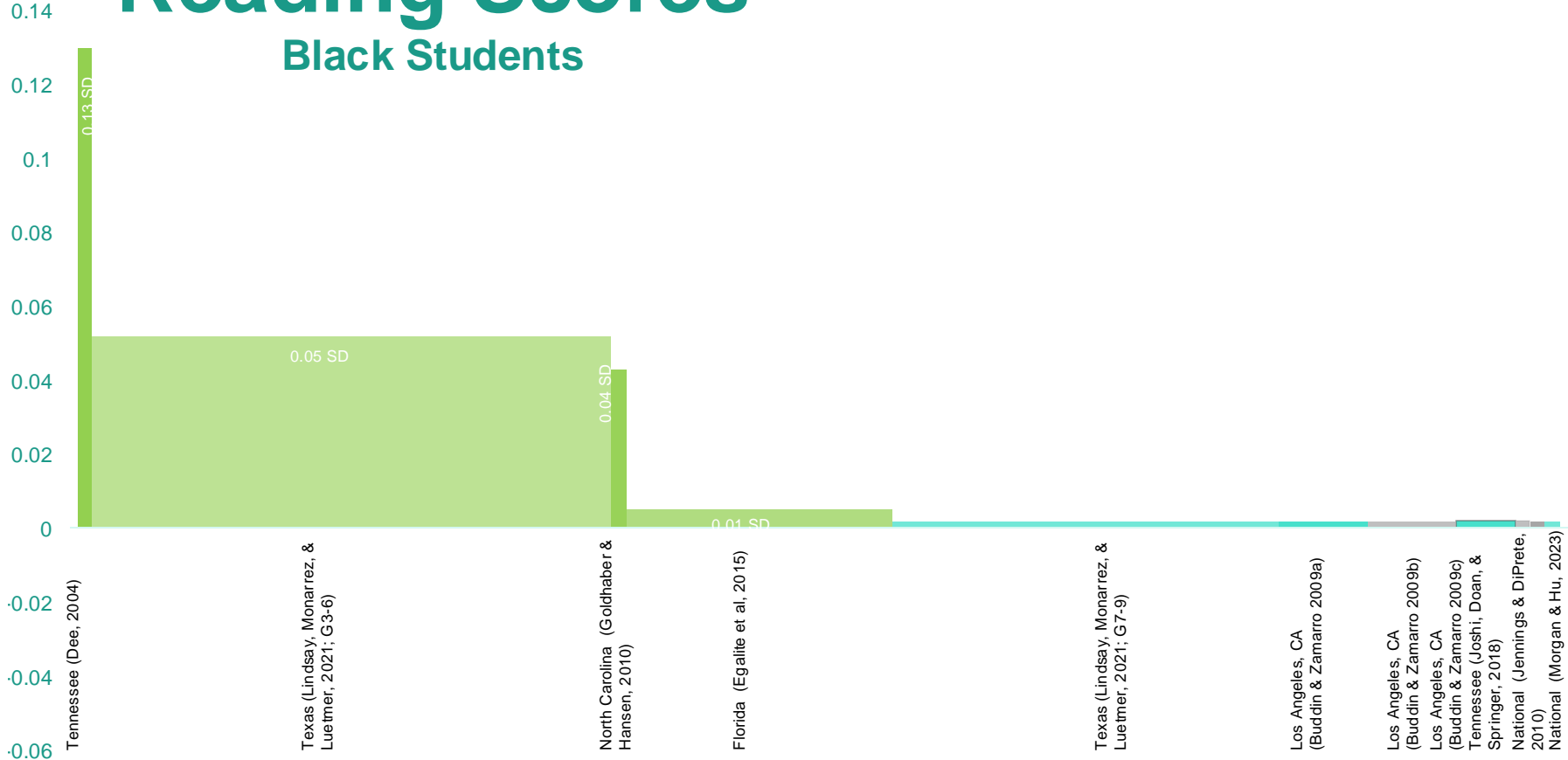
Math Scores

Black Students



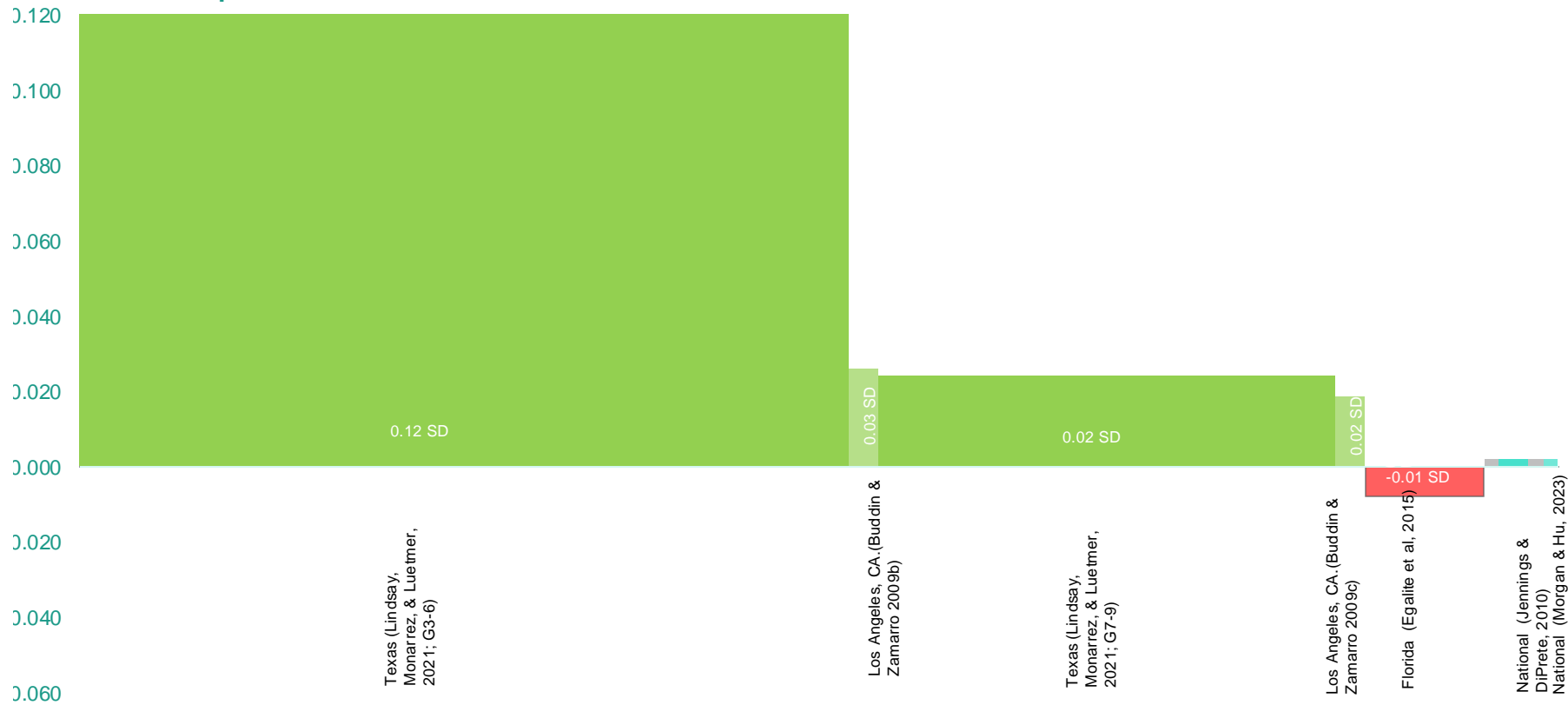
Reading Scores

Black Students



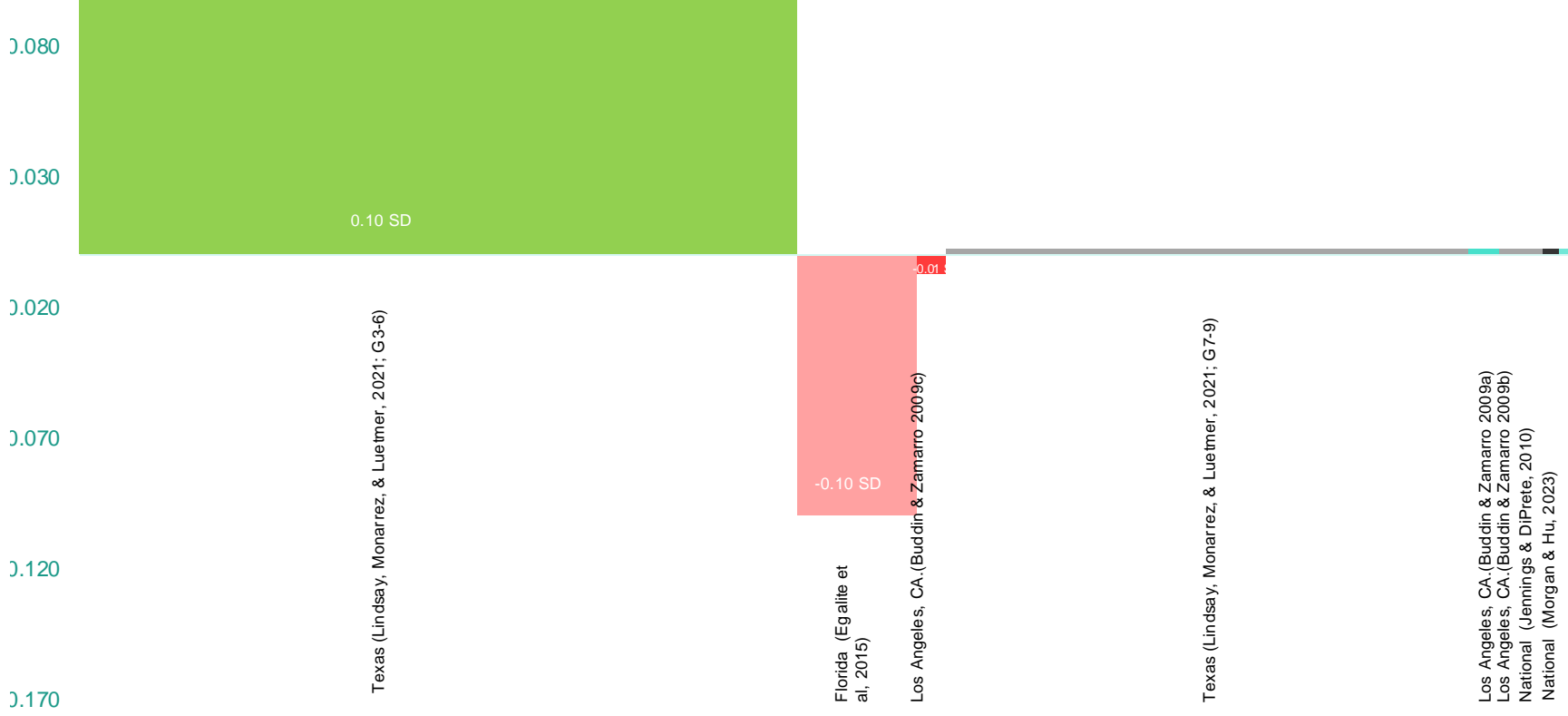
Math Scores

Hispanic Students



Reading Scores

Hispanic Students



Need to look beyond test scores

The Effects of Teacher Match on Students' Academic Perceptions and Attitudes

Anna J. Egalite

North Carolina State University

Brian Kisida

University of Missouri

Using student survey data from six U.S. school districts, we estimate 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. Relying on a classroom fixed-effects strategy, we show that students assigned to a teacher with similar demographic characteristics experience positive benefits in terms of these academic perceptions and attitudes. The most consistent benefits are among gender matches, and the largest benefits are demonstrated by the combination of gender and racial/ethnic matches. The effects of gender matches are largely consistent across elementary and middle school, while the most consistent effects from race matches occur in middle school.

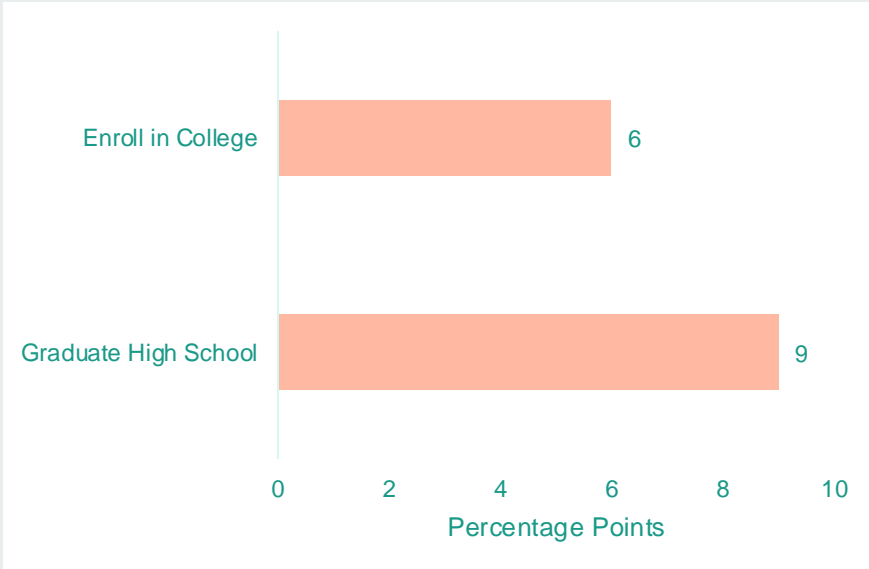
Non-Test Score Outcomes Associated with Teacher Race/Ethnicity Matching: Significant Effects

How teacher matching influences a variety of important student outcomes, beyond short-run test scores.

	Citation	Population	Outcome	Percentage Point Change
1	Lindsay Monarrez Luetmer (2021)	Hispanic students, G3-6	Ever disciplined	-4.0
2	Tran & Gershenson (2021)	Black students	Chronic absenteeism	-3.1
3	Gottfried, Kirskey, & Fletcher (2022)	Hispanic students	Probability of being absent on the average day	-3.0
4	Lindsay & Hart (2017)	Black students	Exclusionary discipline	-2.0
5	Lindsay Monarrez Luetmer (2021)	Black students, G3-6	Ever disciplined	-2.0
6	Holt & Gershenson (2019)	Non-white males	Ever suspended	-1.3
7	Lindsay Monarrez Luetmer (2021)	Hispanic students, G7-9	Ever disciplined	-1.0
8	Lindsay Monarrez Luetmer (2021)	Hispanic students, G3-6	HS drop out	-1.0
9	Lindsay Monarrez Luetmer (2021)	Black students, G7-9	Ever disciplined	-1.0
10	Lindsay Monarrez Luetmer (2021)	Black students, G3-6	College graduation (BA degree)	-1.0

11	Lindsay Monarrez Luetmer (2021)	Black students, G7-9	College graduation (BA degree)	-1.0
12	Holt & Gershenson (2019)	Non-white males	Chronic absenteeism	-0.6
13	Shirrell, Bristol, & Britton (2021)	Black students	Suspensions	-0.2
14	Shirrell, Bristol, & Britton (2021)	Hispanic students	Suspensions	-0.1
15	Delhommer (2022)	Hispanic students	HS graduation	1.0
16	Delhommer (2022)	Black students	College enrollment	1.0
17	Lindsay Monarrez Luetmer (2021)	Hispanic students, G3-6	HS graduation	1.0
18	Lindsay Monarrez Luetmer (2021)	Hispanic students, G3-6	College graduation (BA degree)	1.0
19	Lindsay Monarrez Luetmer (2021)	Black students, G3-6	HS drop out	1.0
20	Lindsay Monarrez Luetmer (2021)	Black students, G7-9	HS drop out	1.0
21	Hart (2020)	Black students	Enrollment in advanced courses	2.0
22	Delhommer (2022)	Asian students	HS graduation	2.0
23	Delhommer (2022)	Hispanic students	College enrollment	2.0
24	Gershenson et al (2022)	Black students	College enrollment	6.0
25	Gershenson et al (2022)	Black students	HS graduation	9.0

Long-Run Effects



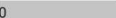











Gershenson et al. (2022)

- *Black students randomly assigned to at least one Black teacher in grades K–3 are 9 percentage points more likely to graduate from high school and 6 percentage points more likely to enroll in college compared to their Black schoolmates who are not.*

Non-Test Score Outcomes Associated with Teacher Race/Ethnicity Matching: Null Effects


How teacher matching influences a variety of important student outcomes, beyond short-run test scores.

	Citation	Population	Outcome	Percentage Point Change
1	Shirrell, Bristol, & Britton (2021)	Asian students	Suspensions	0 
2	Blazar (2021)	Black, Hispanic, and Asian students	Chronic absenteeism	0 
3	Blazar (2021)	Black, Hispanic, and Asian students	Ever suspended	0 
4	Redding (2022)	Black students	Grade retention	0 
5	Redding (2022)	Hispanic students	Grade retention	0 
6	Morgan & Hu (2023)	Black students	Special ed identification	0 
7	Morgan & Hu (2023)	Black students	Gifted and talented assignment	0 
8	Morgan & Hu (2023)	Hispanic students	Special ed identification	0 
9	Morgan & Hu (2023)	Hispanic students	Gifted and talented assignment	0 
10	Delhommer (2022)	Black students	HS graduation	0 
11	Delhommer (2022)	Asian students	College enrollment	0 
12	Lindsay Monarrez Luetmer (2021)	Hispanic students, G7-9	HS drop out	0 

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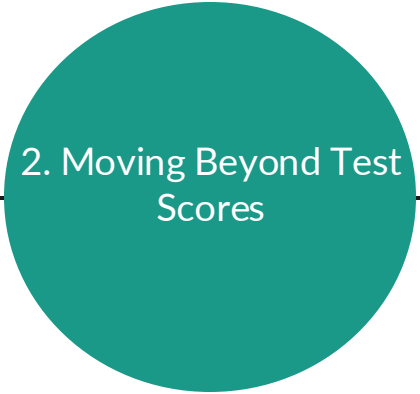
Where to go next

Where To Go Next




1. More
Subgroup
Analyses

Example: Focusing on
students with
disabilities



2. Moving Beyond Test
Scores

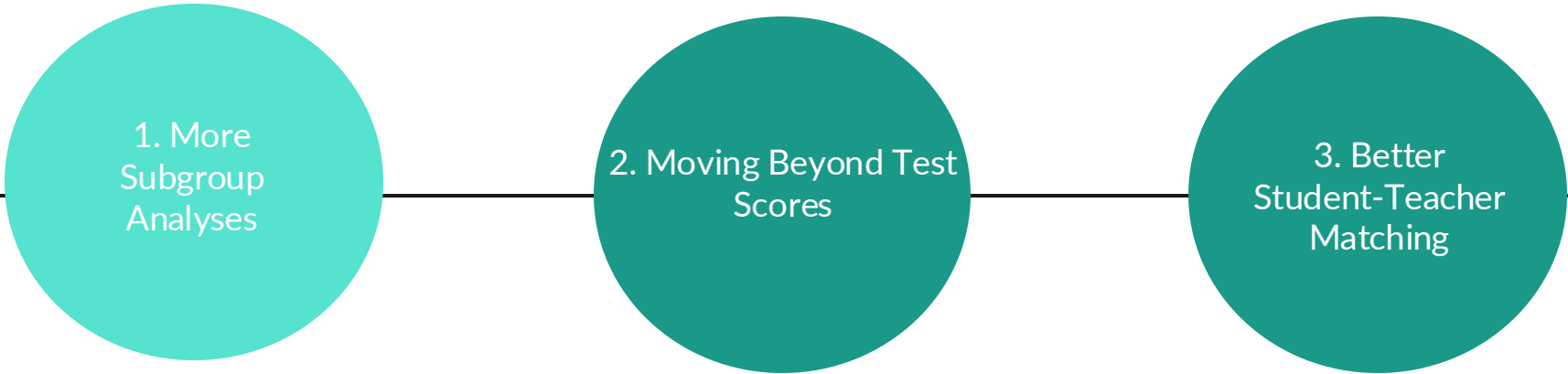
Example: Student
Identification for
Special Education
Services



3. Better
Student-Teacher
Matching

Example: Accounting
for linguistic
background

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More Subgroup Analyses

"Representation for Exceptional Children: Student-Teacher Ethnoracial Matching for Students with Disabilities"

Anna J. Egalite
Michael A. Gottfried
M. Daniela Barriga

Research Questions

1. Do SWDs have different academic outcomes (*test scores, attendance, suspension, and graduation rates*) when they experience a match with a teacher of the same race or ethnicity?
2. Do these relationships vary by student characteristics (i.e., race/ethnicity, low-income status, disability type, grade-level)?
3. Do these relationships vary by school demographic context (i.e., school size or the racial/ethnic make-up of the student body)?

Prior Literature:

- For students in the general population, the matching benefits have been established. Do the same benefits confer to SWDs?
 - Behavioral challenges experienced by students of color in the general population may be exacerbated for SWDs with communication impairments, emotional disturbances, or self-regulation challenges
- Gottfried, Kirksey, and Wright (2019): Nationally representative data on Kindergarten students
 - Outcomes: Math and reading scores in 2010-11; teacher reports of students' social-emotional skills
 - Sample size restrictions compelled the authors to combine Black and Hispanic students into a single group
 - Only one grade level examined
- No evidence that young SWDs benefitted from an ethnoracial teacher match on achievement or socio-behavioral measures

Data:

- Student-level longitudinal data for all Massachusetts public school students, 2011-2018, grades 3-12

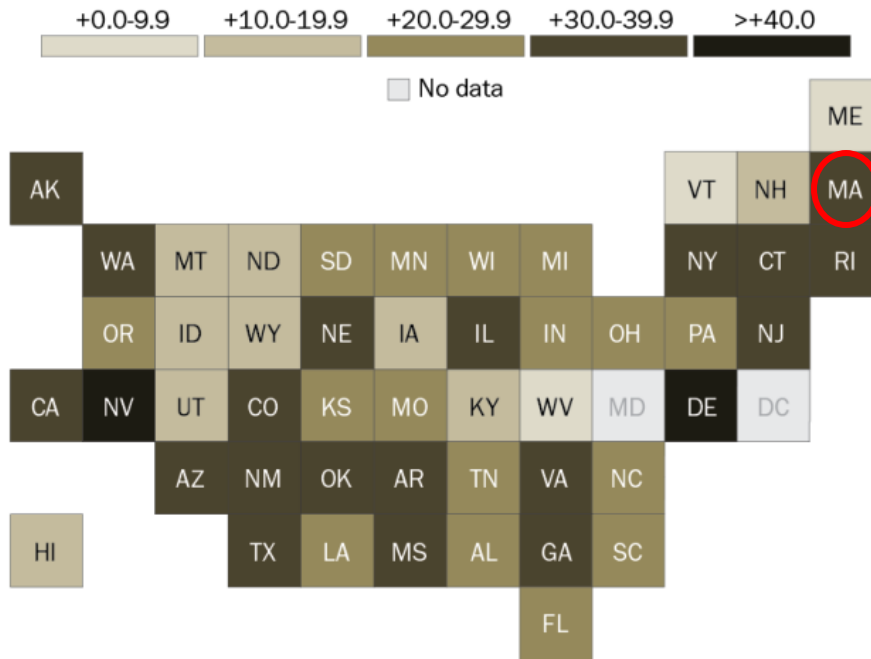
Outcomes:

- Math and ELA test scores, attendance, suspension, graduation rates

Why Massachusetts?

Public school teachers are, on average, 27 percentage points more likely to be White than their students. In MA, that figure is between 30-39 percentage points.

Percentage point difference in White teachers and students, based on the 2017-18 school year



Note: Percentage distribution based on students for whom race and ethnicity was reported, which may be less than the total number of students in the state.

Teachers include both full-time and part-time teachers.

Source: U.S. Department of Education, National Center for Education Statistics.

Method



For the analysis of test scores, attendance, suspension: Research design features student, school, grade, and year fixed effects

Graduation: Classroom fixed effects

Sample

Graduation sample is focused on the universe of ninth grade public school students, which we track for the next four years.

Table 1.
Descriptive Statistics of the Analysis Samples

	Mean	SD	Min	Max
Panel A: Achievement Sample				
<i>Student Characteristics</i>				
Female	0.37	0.48	0.00	1.00
Free/Reduced-Price Lunch	0.46	0.50	0.00	1.00
Limited English Proficiency	0.09	0.28	0.00	1.00
White	0.65	0.48	0.00	1.00
Black	0.09	0.28	0.00	1.00
Hispanic	0.21	0.40	0.00	1.00
Other Race	0.06	0.24	0.00	1.00
Level of Special Needs: Low	0.40	0.49	0.00	1.00
Level of Special Needs: Medium/High	0.60	0.49	0.00	1.00
<i>Disability</i>				
Specific Learning Disability	0.39	0.49	0.00	1.00
Communication Impairment	0.20	0.40	0.00	1.00
Health Impairment	0.16	0.37	0.00	1.00
Emotional Impairment	0.06	0.23	0.00	1.00
Autism	0.06	0.23	0.00	1.00
Neurological Impairment	0.06	0.24	0.00	1.00
<i>Teacher Characteristics</i>				
Female	0.82	0.38	0.00	1.00
White	0.95	0.22	0.00	1.00
Black	0.02	0.15	0.00	1.00
Hispanic	0.02	0.12	0.00	1.00
Other Race	0.01	0.12	0.00	1.00
Experience	10.43	7.99	0.00	55.00
<i>School Characteristics</i>				
School Percent White Students	0.65	0.29	0.00	1.00
School Percent Black Students	0.08	0.12	0.00	0.92
School Percent Hispanic Students	0.18	0.23	0.00	1.00
School Percent Teachers Female	0.81	0.14	0.00	1.00
School Percent Teachers White	0.94	0.11	0.00	1.00
School Percent Teachers Black	0.02	0.07	0.00	1.00
School Percent Teachers Hispanic	0.02	0.05	0.00	1.00
School Percent Teachers Other Race	0.02	0.04	0.00	1.00
School Percent Teachers in First Year	0.00	0.02	0.00	0.51
<i>Key Variables of Interest</i>				
Ethnoracial Match: All	0.64	0.48	0.00	1.00
Ethnoracial Match: White	0.97	0.16	0.00	1.00
Ethnoracial Match: Black	0.08	0.27	0.00	1.00
Ethnoracial Match: Hispanic	0.04	0.20	0.00	1.00
Math	-0.77	0.85	-2.92	3.17
ELA	-0.82	0.89	-3.41	3.00

Findings



1. **Small test score effects:** Black SWDs who experience an ethnoracial match score ~ one percent of a standard deviation (0.0142 SD) higher in math achievement, relative to themselves in years during which they did not experience an ethnoracial match. Similarly, students who qualify for free and reduced-price lunch score ~ one percent of a standard deviation (0.0083 SD) higher in math. No ELA effects.
2. **Modest improvements in school attendance** for low-income SWDs (who attend school for about a quarter of a school day more), students with a Specific Learning Disability (who attend school for about a third of a school day more), and elementary-aged SWDs (who attend school for about one-half a day more) in years in which they experience an ethnoracial match with their teacher
3. **No effect** of ethnoracial matching on suspensions
4. **No effect** of ethnoracial matching on graduation

Implications

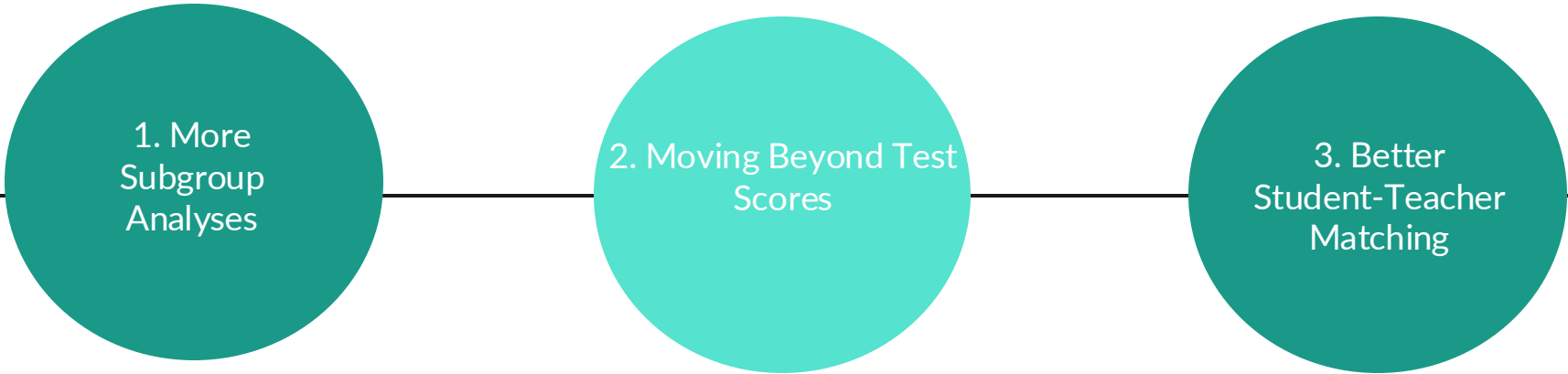


This approach offers a blueprint for studies of this nature (comprehensive analysis examining measuring SWDs' success across multiple domains: achievement, attendance, suspensions, and graduation)



Results suggest that while efforts to improve teacher diversity remain important, they should be complemented by other strategies that directly target SWDs' unique challenges and support their success

Where To Go Next



1. More
Subgroup
Analyses


Example: Focusing on
students with
disabilities

2. Moving Beyond Test
Scores

Example: Student
Identification for
Special Education
Services

3. Better
Student-Teacher
Matching

Example: Accounting
for linguistic
background



Moving Beyond Test Scores

“The Role of Teacher- Student Ethnoracial Matching in Student Identification for Special Education Services”

Anna J. Egalite
Michael A. Gottfried
Christy Batts
Leanna C. Martin

Research Questions

1. Is teacher-student ethnoracial match associated with whether a student is referred and evaluated for special education services in Massachusetts?
2. Do effects vary depending on student characteristics, such as a student’s disability type?
3. Do effects vary depending on school context, including school racial composition and school size?

Prior Literature:

- Morgan and Hu (2023)
 - ECLS-K: 2011; highest grade level examined is G5; small subgroup sizes; null effects
- Hart & Lindsay (2023)
 - NC data; highest grade level examined is G4
 - Black students ~1 percentage point less likely to be placed in special education if they are matched with a Black teacher in the prior school year
 - Results driven by Black males, 1.7 percentage point decrease

Data:

- Student-level longitudinal data for all Massachusetts public school students, 2011-2018, K-12

Outcome:

- Initial referral and evaluation for special education services. This includes students who were evaluated and found eligible, but the parent/guardian declined such services

Summary of Contributions




New context: Massachusetts allows us to examine more racial subgroups than have been studied in prior literature



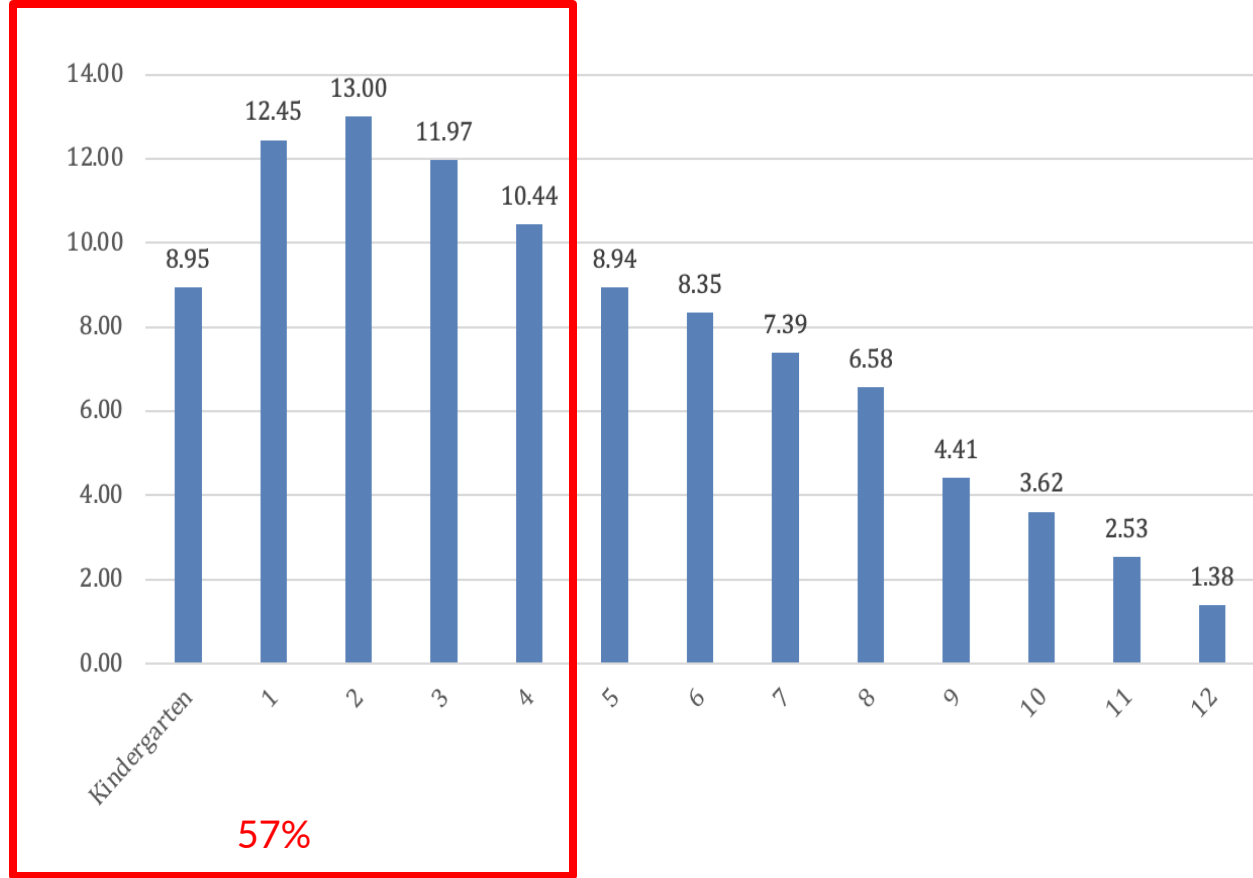
Expansive age range: By including grades K-12, we expand the range of students that have been previously studied



Our outcome variable allows us to focus on *initial* referral and evaluation, more directly tied to the current-year teacher and includes those for whom parents might later decline services, despite the child being eligible



Grade Level at Which Initial Evaluation for Special Education Occurs



Findings: Ethnoracial Matching and Special Education Identification



Looking at the overall population, students are **no more or less likely** to receive an initial evaluation for special education services when assigned to a teacher of similar race and/or ethnicity.



Subgroups:

Male students see a small **reduction** in identification (0.10 percentage points).

Students in lower elementary classrooms also experience a small **reduction** in identification (0.18 percentage points).

Findings, by Race/Ethnicity: Ethnoracial Matching and Special Education Identification



Black students in the following grade groupings see a reduction in their likelihood for referral and evaluation for special education services:

- * Lower elementary(K-G3): -0.36 percentage points
- * Upper elementary (G4, 5): -0.35 percentage points



Hispanic students in lower elementary school experience the largest reduction in their likelihood of referral at 0.57 percentage points

Implications



Race as an underappreciated contextual factor in disability diagnosis


This is consistent with prior research, which shows that ethnoracial matching is associated with a reduction in exclusionary discipline and other outcomes that are influenced by teacher judgment



Implications for Districts:

Consider reviewing referral guidelines to ensure teacher discretion is not the most important factor in the referral process

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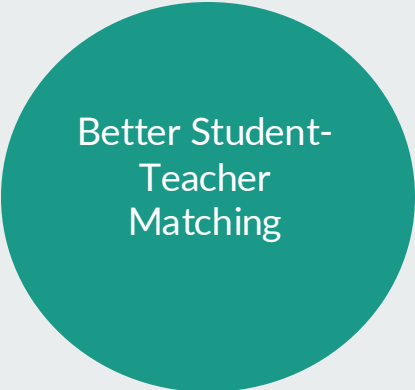
2. Moving Beyond Test
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Example: Student
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3. Better
Student-Teacher
Matching

Example: Accounting
for linguistic
background



Better Student-Teacher Matching

“Both/And: Students’ Academic Benefits of Sharing Race/Ethnicity and Language with their Teachers”

Michael A. Gottfried
Jennifer A. Freeman
Anna J. Egalite

Research Questions

1. Is there an academic benefit of ethnoracial matching between student and teacher in our sample of Hispanic students?
2. Is there a larger academic benefit for Hispanic students who experience a combined ethnoracial match as well as ethno-linguistic match, instead of a single match?
3. Do the findings differ for subgroups of Hispanic students, such as those with disabilities or those from low-income backgrounds?

Data:

1. 14,796 observations in 13 elementary schools in a single school district in California, 2011-2014
2. District is 70% Hispanic, 25% White – our study will compare Hispanic to White matching
3. Grades 3 through 5

Outcomes:

- State exams, ELA and Math
- Absenteeism
 - Days absent
 - Chronic absenteeism (10%+ of the school year)

Types of Matches We Consider for Hispanic Students in Our Sample:

- English language learner, teacher is Hispanic, teacher certified in Spanish
- English language learner, teacher is *not* Hispanic, teacher certified in Spanish
- Not English language learner, teacher is Hispanic, teacher certified in Spanish

Prior Literature

Missing Outcome: Attendance

Missing Focus: Shared Language

- Two prior papers, but focused on teacher perceptions (Gottfried et al., 2017; Seah, 2021)
- We argue prior research has overlooked achievement and attendance.
Why important?:
 - **Achievement:**
 - Culturally-responsive teaching (Castro & Calzada, 2021)
 - Can incorporate language into instruction (Reese et al., 2014)
 - **Attendance:**
 - Can connect better with parents (Becerra, 2012; Klugman et al., 2012)

Early Findings

- When Hispanic English Learners are assigned to Hispanic teachers with a language authorization, they have significantly higher math test scores (0.29 SD)
- This implies that we would be underestimating the match effect by not taking into account the importance of teachers' language authorization

Table 4

Matching and Effects on Hispanic Students' Outcomes

	Math	ELA	Days Absent	Chronic Absence
Panel A. Ever ELs				
1. Teacher is Hispanic, holds language authorization	0.29*** (0.07)	-0.02 (0.07)	-0.06 (0.31)	0.02 (0.02)
2. Teacher is Hispanic, does not hold language authorization	0.07 (0.06)	-0.00 (0.06)	-0.04 (0.24)	-0.00 (0.01)
3. Teacher is not Hispanic, holds language authorization	0.08 (0.06)	-0.06 (0.06)	0.14 (0.28)	0.03+ (0.02)
Wald tests (p-value)				
Match 1 = Match 2	0.007	0.834	0.952	0.204
Match 1 = Match 3	0.000	0.403	0.355	0.472
Match 2 = Match 3	0.961	0.412	0.588	0.073
Observations	2,032	1,998	6,694	6,694

Note: All models use student, year, and school fixed effects. Standard errors shown in parentheses are clustered at the school level. EL = English learner; ELA = English language arts

Discussion

The lack of diversity and racial representation among teachers continues to be a national policy challenge. What form might contemporary policy activity take, in light of the current climate? Does the U.S. Department of Education have a role to play in devising, informing, or evaluating potential solutions to address this persistent representation challenge?



Contact

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