Inching Toward Integration? A Report of Student and Teacher Exposure to Racial Diversity in Pennsylvania’s Public Schools, 2013-2020

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Introduction

In the 1968 *Green* decision, the U.S. Supreme Court listed six factors that would define what a desegregated school is. Integration of students is still not fully achieved, despite the educational and social benefits for students of all racial/ethnic groups from cross-racial exposure, particularly when well-structured. Aside from racially desegregating students, one of the markers of eradicating prior segregation was desegregating teachers. Today, research and policy support two interrelated goals: 1) having a racially diverse teaching force, particularly given the diversity among the K-12 public school enrollment; and 2) consideration of how to ensure all schools have diverse faculties. One’s racial identity is largely informed by their cumulative social interactions. A healthy racial identity formation is more likely when individuals interact with a diverse set of peers, colleagues, and mentors.\(^1\) While minoritized students benefit from having at least one teacher who looks like them, a frequently overlooked research finding is that White students also reap benefits when they have non-White teachers.\(^2\) Additionally, one mechanism for reducing the disproportionately lower rates of retention of teachers of color is by reducing teachers’ racial isolation.\(^3\) In short, teachers and students of all demographics benefit from interactions with teachers and students of varying racial/ethnic groups. Combining these findings reveals that segregation is a multilayered concept, and thus addressing it requires attending to a number of interrelated factors. Because of the limited racial diversity among teachers, assuring both representation—particularly for students of color to have same-race teachers—and exposure to teachers from diverse backgrounds for all students can be a challenge despite the importance of these goals. Yet, in part because student segregation

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remains high, cross-racial exposure to teachers could provide an important context for students to learn that they otherwise would not experience.

Building on data originally compiled by Research for Action (RFA) detailing teacher diversity in Pennsylvania’s schools and districts from 2013-2014 to 2019-2020, we examine the extent to which Pennsylvania’s students and teachers have racially desegregated environments in their exposure to same-race and other-race children and/or adults in their schools.⁴ To do so, we rely on a measure frequently used in segregation analyses, the exposure index.⁵ Because the data on teacher diversity remained fairly constant throughout this period, we chose to include calculations of exposure indices for 2013-14, 2016-17 and 2019-20. Pennsylvania is an illustrative case study for the country because the state contains pockets of concentrated segregation of students of color and of White students, largely defined by geographical boundaries. Pennsylvania includes the nation’s 8th largest school district, Philadelphia, as well as smaller urban districts like Pittsburgh, Allentown, Reading, and Erie; these districts are largely comprised of students of color. Additionally, Pennsylvania has large swathes of rural areas comprising a quarter of the state’s population, the significant majority of which is White.⁶ Though White students now make up just 47% of the national K-12 public school student population, they represent 64% of Pennsylvania’s public K-12 student population.⁷ As Pennsylvania’s varied locales are indicative of the different types of communities in the country, their successes and challenges can be instructive for the nation as a whole.

Across all three time points featured in this study, the demographics of the state’s teaching force has remained stable and overwhelmingly White while more change is seen among the student enrollment, which has consistently been much more diverse (Figure 1). RFA’s initial analysis sought to highlight the lack of teacher diversity in Pennsylvania despite state-wide and local efforts to diversify the teaching field. We extend their work to deepen our understanding of the relationship between student and faculty diversity. Our analyses illustrate the implications of low racial diversity

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⁴ Due to data limitations, we look at school-level segregation although second generation segregation, which refers to sorting within schools, also affects these patterns at the classroom level for students and teachers.

⁵ You can read more about this measurement in Frankenberg, E. (2008). The Segregation of American Teachers. Education Policy Analysis Archives, 17(1). https://epaa.asu.edu/ojs/article/view/3. Exposure indexes are essentially a weighted average in that they explain the extent to which a certain demographic group (in this case, racial group) encounters its own group or another group. We calculate exposure indices for student-teacher interactions, as well as student-student, teacher-teacher, and teacher-student interactions; these indices can be calculated state-wide, as well as for individual districts and counties.


among teaching staff: students have little cross-racial exposure to teachers, and teaching staff have little cross-racial exposure among their own ranks. (For analyses specific to a county or district in Pennsylvania, see our online appendices for 2013-14 and 2019-20.)

Figure 1: Racial composition of public school teachers and students in Pennsylvania, 2013-14, 2016-17, 2019-20

These findings have clear implications for public schools and districts, institutions that have long struggled with segregation of students and teachers, and a teaching force whose demographics do not reflect the country’s K-12 student population. In the sections that follow, we demonstrate via student-student analysis that students remain segregated and then show, via student-teacher analysis, that a lack of exposure to diverse teachers doesn’t give students much additional integrative experience. We then analyze teacher exposure to both students and colleagues. We find that teacher diversity, to the extent that it currently exists, is not spread evenly amongst the state’s schools, and teachers of color are at highest risk for racial isolation. This further demonstrates the need for state and local policies aimed at increasing the cross-racial experiences of students and teachers in public schools. We end with policy recommendations that take all four analyses into account. Our analyses and policy recommendations are framed with the following long-term goals in mind: 1) having a teaching force that reflects the demographic make-up of the state’s student population and 2) ensuring that rich, cross-racial experiences are available for students and faculty at each school across every district. We analyze school-level data in this study, meaning we cannot draw any conclusions here regarding the integration of classrooms within schools. Even so, the goals, analyses, and policy recommendations we offer in this study implicate and support integrated classrooms as well.
Student-Student Analysis

In Pennsylvania, our data shows that Black, White, and Hispanic\(^8\) students have all had increased exposure to Hispanic students, due in large part to the growth of the Hispanic population in Pennsylvania (Figure 2). Pennsylvania’s Hispanic student population tripled in the first decade of 2000, as incoming Hispanic residents settled in counties across the state. While larger, more diverse cities like Lebanon, York, Allentown, Bethlehem, Reading, and Philadelphia attracted Hispanic families, increases in the numbers of Hispanic residents were seen in communities in smaller locales like Adams County, Hazleton, Kennett Square, and Norristown.\(^9\) Because Pennsylvania’s population was (and remains) majority White, this demographic change held great potential for further integrating the state’s public schools. While all students experienced increased exposure to Hispanic students between 2013 and 2019, the overall rates of cross-racial exposure Black and White students had to Hispanic students remained quite low, with the peak being 13.9% for Black students’ exposure to Hispanic students during the 2019-20 school year (Figure 3).

On average, the racial composition of students in schools attended by White, Black, and Hispanic students differs substantially. The average White student in Pennsylvania attended a school that was only between 5-7% Hispanic and the average Black student attended a school that was between 11-14% Hispanic. By contrast, Hispanic students' same-race exposure indices increased from 36 to 38%, or more than triple the share of public students who are Hispanic (Figure 2). Both White and Black students have high rates of racial isolation; the average White and Black student sees more students from their same race/ethnicity than not. This is especially the case for White students who attend school with few peers of other races (less than one in four, on average, by 2019-20). Additionally, the cross-racial exposure of Hispanic students decreased. From 2013 to 2019, Hispanic students were increasingly attending schools with other Hispanic students and fewer other-race students, a trend that points to rising levels of racial isolation.

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\(^8\) Our data source, Research for Action, uses the identifier “Hispanic” in their data sets. We have chosen to use “Hispanic” in lieu of “Latinx” or “Latino/a” throughout this report for consistency’s sake. For brevity, we’ve chosen to focus on the three most populous racial/ethnic groups in the state’s student body: White, Black, and Hispanic. In 2019-20, 64% of PA students were White, 14% were Black, and 13% were Hispanic.

These patterns matter for a number of reasons, in terms of limited racially diverse schools (and likely, classrooms). Most national and state level reports that assess racial and economic segregation find persistent overlap. In a 2015 Civil Rights Project report, Stephen Kotok and Katherine Reed showed that statewide in Pennsylvania, non-White students attend schools with slightly more than twice the number of low-income students as the typical White student does. This reveals that the average White student has significantly less exposure to students from low-income households than the average non-White student in Pennsylvania does. Because most metro segregation in Philadelphia and Pittsburgh areas is due to district boundaries,\(^\text{10}\) policies meant to interrupt these patterns will have to involve district boundaries, such as making them more porous for student assignment through interdistrict schooling options.

Figure 3: Average peer exposure for the typical student in Pennsylvania, 2013-14, 2016-17, 2019-20
Student-Teacher Analysis

Compounding the high rates of student segregation just described, teacher demographics in the US do not track student demographics.11 Further compounding the problem of exposure to racially diverse teaching staff, the disproportionately smaller share of teachers of color (Figure 4) are also not distributed equally across all schools; rather, teachers of color are more likely to be in schools that disproportionately enroll students of color and low-income students while many other schools have entirely White faculties.12 Acknowledging the benefits students of color reap when learning from same-race teachers, it is worth noting and celebrating that an increasing number of students of color currently have opportunities to learn from at least one teacher who looks like them. This makes a positive difference in terms of academic gains and social-emotional well-being.13 We acknowledge this while also highlighting students’ similarly important need to learn from other-race teachers. Integrated faculties enact both goals simultaneously; that is, their teaching staff is diverse enough to provide all students with same-race representation and cross-racial exposure. The data currently shows that these goals are frequently in conflict with one another. Students may have access to teachers who look like them, but this representation comes at the expense of learning from other-race teachers. We find similar patterns in Pennsylvania.

Pennsylvania’s Black students have the highest exposure to teachers of color as well as Black teachers, specifically, on average. Remarkably though, the average Black student still only has 16% of teachers in their school that are Black; this has remained stable from 2013 to 2020 (Figure 5). Again, while these numbers are still small, this does mean that Black students are at least likely to have some same-race teachers throughout the course of their K-12 schooling, which research shows is important.14 These students have significantly fewer Hispanic teachers, only 1-2% throughout 2013 and 2020. As was the case with exposure to students of color, White students statewide have minimal exposure to teachers of color. Across the board, students in Pennsylvania, no matter their racial identity, have a high number of White teachers in their school. This is highest for White students, however; between 2013 and 2020, the average White student attended a school with 98%

of teachers who were White. The implication of these findings is that students’ current exposure to teachers reinforces student segregation, and offers little redress for student segregation.

**Figure 4: Overall racial composition of public school teachers in Pennsylvania, 2013-14, 2016-17, 2019-20**

![Figure 4](image)

**Figure 5: Average teacher exposure for the typical student in Pennsylvania, 2013-14, 2016-17, 2019-20**

![Figure 5](image)

Note: Because White students’ exposure to other race teachers is so low, the values don’t display on the figure. White students’ exposure to Black teachers was 1.1% in 2013-14 and 1.0% in 2016-17 and 2019-20; their exposure to Hispanic teachers was 0.4% in 2013-14, 0.5% in 2016-17, and 0.6% in 2019-20.
Teacher-Student Analysis

A national analysis in 2008 found that teachers tend to work in schools that enroll a disproportionately higher percentage of students of their same race/ethnicity. Our findings show that Pennsylvania follows this national trend. This finding is important because it implies that teachers, the vast majority of whom are White, may not have as many opportunities to build relationships with students and families across racial lines as policymakers or community members assume. Additionally, since research reveals that White students, on average, have significantly less exposure to students from low-income households than Black and Hispanic students, the segregation of students can directly impact teachers’ burnout levels because teachers who work in environments of concentrated poverty may find themselves contending with higher rates of trauma and fewer resources. As of 2020, the average White teacher in Pennsylvania teaches majority White students and the average Black teacher teaches majority Black students. Also as of 2020, the average Hispanic teacher teaches mostly (though not majority) Hispanic students.

Black teachers, on average, have especially low exposure to White students—just 17% in 2020—despite the fact that White students comprise 64% of the state’s student enrollment (Figure 6). Such patterns may reflect barriers to Black teachers’ employment, and may also mean that they are employed in schools that are disproportionately underfunded. Similar, though less extreme, patterns are seen for Hispanic teachers who are in schools in which just one-third of students are White, on average. Moreover, a disproportionately higher percentage of the typical Hispanic teacher’s school is comprised of Black students.

Finally, although White teachers are still most likely to teach in schools that are majority White, their exposure to White students is decreasing. This trend of White teachers gaining exposure to more non-White students points to the importance of ensuring that White teachers participate in cultural competency and anti-bias training. Such training is especially important when teachers are not regularly learning from one another across racial lines, as is the case. As our last analysis will

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show, teacher segregation is a concern in both Pennsylvania and nationally, and White teachers are by far the most segregated.

**Figure 6: Average student exposure for the typical teacher in Pennsylvania, 2013-14, 2016-17, 2019-20**

![Bar chart showing average student exposure for typical teachers in Pennsylvania over three years, with percentages for White, Black, and Hispanic students for White, Black, and Hispanic teachers separately.]
Teacher-Teacher Analysis

Having teachers of color in schools helps ensure that schools are more equitable, and teachers can learn from one another along racial lines.¹⁷ When there are just one or two teachers of color in a given school, however, these teachers suffer from racial isolation or pronounced same-group exposure. Research demonstrates that retaining teachers of color is particularly difficult when teachers experience racial isolation in the schools in which they teach.¹⁸ Many teachers of color who experience racial isolation share reports of shouldering a disproportionate amount of work in their schools; males of color, for instance, are often asked to handle disciplinary concerns,¹⁹ whereas Hispanic teachers might be asked to assist with translation needs for Spanish-speaking families even if they do not speak Spanish.²⁰ Moreover, while data confirms that a greater numbers of minoritized teachers are entering the profession, it also confirms that these minoritized teachers are at high risk of leaving the teaching force after just a few years.²¹ Thus, if such attrition patterns persist, increased entry of more teachers of color to the profession will do little to change the persistent demographic gap between students and teachers.

Since 2013, same-group exposure rates for Pennsylvania teachers have remained stagnant except for Hispanic teachers, whose same-group exposure rates (in this case, exposure to other Hispanic teachers) is declining (Figure 7). Across the board, the relative constancy in same-group and cross-racial indices shows that most teachers in Pennsylvania taught in schools whose faculty racial composition in 2019 was very similar to that in 2013. Perhaps most striking is the fact that the average Black teacher works in a school whose faculty is just 66% White, despite White teachers making up 94% of the state’s teaching force. When considering cross-racial exposure, Black and

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White teachers have very low rates of exposure to Hispanic teachers, though this is gradually increasing. These suggest that some Hispanic teachers are increasingly likely to be teaching in schools where they are the only Hispanic teacher, though they’re also now more likely to work alongside a Black faculty member. These rising rates of White and Black teachers’ cross-racial exposure to Hispanic teachers are hopeful from an integration standpoint because these teachers may be collaborating across racial lines; the small percentages that indicate these growing cross-racial experiences, however, are still cautionary because they suggest that they may come at the expense of increased racial isolation for Hispanic teachers. The goal for integrated schools is to foster cross-racial experiences, in this case amongst teachers, while mitigating the risk of racial isolation.

Figure 7: Average teacher exposure for the typical teacher in Pennsylvania, 2013-14, 2016-17, 2019-20

Note: Because White teachers’ exposure to Hispanic teachers is so low, the values don’t display on the figure; this cross-racial exposure was 0.7% in 2013-14, 0.8% in 2016-17, and 1.0% in 2019-20.
Policy Recommendations

We end our analysis with a set of policy recommendations for district, state, and federal leaders, as well as for colleges of education. We first acknowledge, however, that even the best designed policies cannot single-handedly overcome the generational impact of inequities and injustices people of color have long faced in this country. Black and Hispanic students have historically struggled to gain access to quality public schools, as well as to the most rigorous courses of study offered within these public schools, which offer more opportunities, including pathways to higher education that are essential preparation for teachers. Moreover, as the country prepares for the 2021-2022 school year, we also acknowledge that COVID-19 has disproportionately impacted families and students of color, thereby creating even more barriers of entry for non-white students into the teaching profession. Furthermore, as teachers of color leave the profession at significantly higher rates than White teachers, issues of teacher retention deserve increased policy attention. It’s challenging to overcome the cyclical nature of these inequities using policy alone, but these recommendations, grouped by actors, are suggested first steps.

**District Leaders:**

- Use relief funds to eradicate barriers that have prevented districts from attracting and retaining teachers of color. This could include constructing a program for paraprofessionals to return to school to earn their teaching licenses, as was done with the Para2Professional Program in Pittsburgh,\(^\text{22}\) as well as using funds to strengthen employee benefit packages.\(^\text{23}\)

- Specifically adopt an active recruiting plan to attract as diverse a pool as possible to district openings, including through building partnerships and attending recruitment events at minority serving institutions.

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• Ensure equitable hiring practices exist throughout the district. Research reveals that hiring practices may prevent qualified minoritized teachers from entering the teaching field in many states.\textsuperscript{24}

• Hold tight to existing equity statements or make plans to pen one, while acknowledging the ways that public schools have historically been used to both assimilate and segregate. Once teachers of color have been hired, districts need to work hard to retain the teachers of color they already have. Currently, in districts throughout the country, predominately White and affluent parents of public-school children are petitioning their school boards to publicly renounce and condemn any connection with critical race theory.\textsuperscript{25} In response, some school boards are going so far as to renounce formalized equity statements, a move that makes a district fundamentally less safe and attractive for teachers of color.\textsuperscript{26}

• Examine patterns of teacher attrition to understand where teachers of color are leaving, and provide supports to school-level leadership to improve the experiences of teachers of color, and hopefully to retain them.

\textbf{State Leaders:}

• Assess the implication of states’ licensing exam requirements and hold test makers accountable for eliminating any racial biases that may be present in licensing exams. Many of these exams are costly and passing rates reflect racial disparities. A recent study in New York showed that over the course of six months, 41% of Black and 46% of Hispanic test-takers passed their licensing exams compared to 64% of White test-takers.\textsuperscript{27} These exams are frequently at odds with states’ professed goals of adding more teachers of color to their


teaching force, especially as nearly a third of test-takers who fail the first time do not retake the test.28

- Regularly report teacher race/ethnicity data in your state. The data used for this study is not available on an ongoing basis; Research for Action was able to secure seven years’ worth of data from the state department of education through a partnership with WHYY, the public radio station based in Philadelphia. The implications of this data are so important for students’ and teachers’ experiences, however, that it ought to be publicly available every year.

- Support the Para2Professional program,29 which exists in Pittsburgh and enables para-professionals to return to school to earn their teaching licenses, as well as the Aspire to Educate program in Philadelphia.30 These programs are two pathways that already exist to diversify the state's teaching force, and should be expanded across the state.

- Support teachers’ ability to include discussions of race in their curriculum and offer continued professional development in this area. As data reviewed above illustrates, substantial cross-racial experiences are currently limited for most K-12 students; in effect, students are oftentimes reliant upon state and teacher-designed curriculum to develop greater racial awareness and understanding.

Federal Leaders:

- Through Every Student Succeeds Act (ESSA), continue supporting research & training for racially diverse schools, as well as holding state departments of education accountable for prioritizing cultural competency in schools. In fall of 2017, Pennsylvania committed to the following in their state ESSA plan: “Educator preparation, induction, and professional development programs should emphasize ongoing, continuous improvement as well as cultural competency and promoting equity to ensure that all students are able to learn in a


29 Para2Teacher Program at Point Park University. (2021). Point Park University. https://www.pointpark.edu/academics/schools/education/graduateprograms/para2teacher-program

safe and supportive environment.” Enacting and sustaining this commitment will take continued resources from the federal government.

- Provide universal loan forgiveness for public school teachers, as well as other monetary and structural supports, to ensure more students of color can move into the teaching profession.

**Colleges of Education:**

- Audit the curriculum, texts, and course requirements for preservice teachers in every discipline using an equity and inclusivity lens. Students of color are less likely to major in a field that requires the study of White-centric curriculum.

- Consider ways to off-set expensive tuition costs for students who are studying education, particularly from underrepresented backgrounds and communities. Low teaching salaries might make future teachers especially wary of taking out student loans, especially as they are unsure how long they’ll remain in the classroom.

- Ensure that the college’s faculty are diverse and reflect the student population of children in your state. As of 2017, only 25% of postsecondary faculty were non-white. Work to provide mentors of color to student teachers, particularly as these relationships can help combat feelings of racial isolation for student teachers of color. These mentors could be cooperating teachers, student teacher supervisors, alumni of the program, and/or program faculty.

- Prioritize research that examines issues of student and teacher segregation, including disparities on state licensing exams, the rates and impact of racial isolation for teachers in particular states, successful pathways for eradicating barriers of entry to the teaching profession, and resources to support school board members who make public commitments to racial equity.

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• Partner with districts on “grow-your-own” programs for teachers that can often support a more diverse teaching force with culturally responsive teaching.\textsuperscript{33}

About the authors

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About the Center for Education and Civil Rights (CECR)

The Center for Education and Civil Rights seeks to be a hub for the generation of knowledge and coalition-building among the education and civil rights communities to promote research-based actions that address the complicated nature of racial and ethnic inequality in the 21st century. The Center’s collective work is intended to promote equity across the educational pipeline by supporting efforts that facilitate integration through an inter-disciplinary approach. CECR is directed by Erica Frankenberg. For more information, see cecr.ed.psu.edu or follow @psu_civilrights.