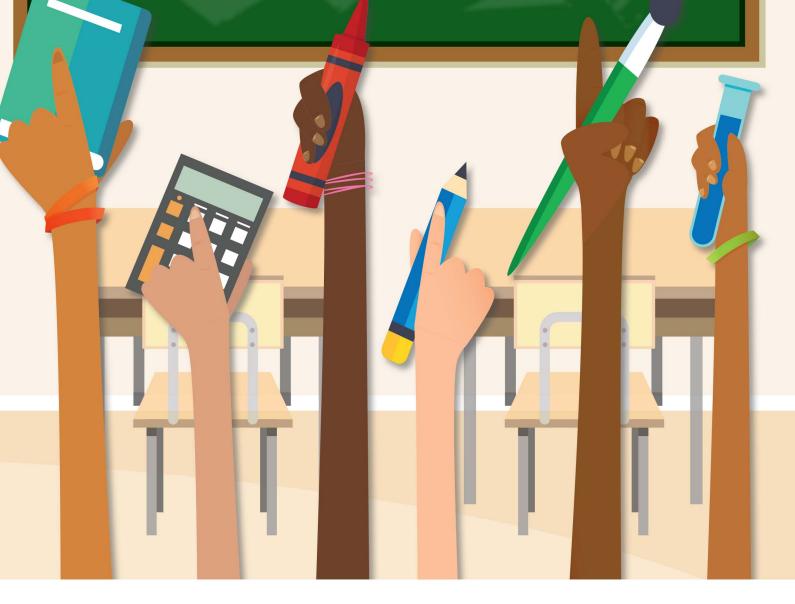
# A TEACHER WHO LOOKS LIKE ME

Examining racial diversity in Wisconsin's teacher workforce and the student-to-teacher pipeline





### ABOUT THE WISCONSIN POLICY FORUM

The Wisconsin Policy Forum was created on January 1, 2018, by the merger of the Milwaukee-based Public Policy Forum and the Madison-based Wisconsin Taxpayers Alliance. Throughout their lengthy histories, both organizations engaged in nonpartisan, independent research and civic education on fiscal and policy issues affecting state and local governments and school districts in Wisconsin. The Wisconsin Policy Forum is committed to those same activities and to that spirit of nonpartisanship.

### PREFACE AND ACKNOWLEDGMENTS

This report was undertaken to provide policymakers, school and district leaders, teacher preparation program leaders, and the public with greater understanding about disparities in racial and ethnic diversity between Wisconsin's teachers and students at key educational milestones. We hope decision makers and stakeholders across Wisconsin's educational landscape will use the report's findings as they consider the challenges and barriers to enhancing the diversity of Wisconsin's teacher workforce as well as promising strategies and policy levers to overcome them.

Report authors would like to thank those who provided their time and insights to help us determine the scope and methodology of this research as well us orient future research that will address the causes, conditions, and policy levers surrounding efforts to improve teacher workforce diversity in Wisconsin. Special thanks to Monica Kelsey-Brown from Brown Deer School District, Curtis Jones from the University of Wisconsin-Milwaukee, and Katie Rainey from the Wisconsin Department of Public Instruction who also provided valuable input on early drafts.

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Herzfeld Foundation



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### INTRODUCTION

"I do know the experience of walking into schools...where Black students ask me with eagerness, 'Are you a teacher here?' And, I recognize the disappointment that falls over those same faces when I shake my head, 'no.' Their longing for a teacher that 'looks like them' is palpable."

Gloria Ladson-Billings 1

Among the most urgent challenges confronting Wisconsin's K-12 education system are long-standing disparities in educational opportunity and achievement on the basis of race. Racial and ethnic achievement gaps also largely correlate with related socioeconomic differences within students' communities in terms of income, poverty, unemployment, and educational attainment.<sup>2</sup>

Both education thought leaders and an expansive body of research suggest a teacher workforce that closely represents the racial makeup of the K-12 student population it serves holds particular promise as one policy lever (among others) that could support academic performance and aspirations of students of color and mitigate trends in racial achievement gaps.<sup>3</sup>

However, improving the racial and ethnic diversity of Wisconsin's teacher workforce is important for both students of color and white students. Many would argue that as they prepare to take their place in an increasingly multicultural society and workforce, all students, irrespective of race, benefit from learning experiences and relationships with role models from a breadth of racial, ethnic, and cultural backgrounds.<sup>4</sup>

Unfortunately, while students of color have been rising as a share of Wisconsin's K-12 student population, the state's teacher workforce has remained overwhelmingly white.

This is the first in a series of Wisconsin Policy Forum reports aimed at informing policy discussions about how to address this imbalance. We analyze available public data both to outline the magnitude of Wisconsin's

### A NOTE ABOUT THE TIMING OF THIS REPORT

We release this report during unprecedented times. In recent weeks, both the coronavirus pandemic and the death of George Floyd at the hands of police have created formidable new public health, economic, and educational challenges and awakened many in our nation to the breadth and nature of longstanding racial injustice. These events illuminate a central facet of both the context and findings of this report, which focuses on racial disparities in Wisconsin's teacher workforce and how those disparities may affect achievement and outcomes for students of color across Wisconsin's education landscape.

Long before COVID-19 shuttered schools throughout the state, far too few students of color in Wisconsin were finishing high school, graduating from college, or completing teacher preparation programs.

Moreover, research by the Forum and many others has begun to paint a picture of how the COVID-19 crisis is likely to exacerbate these inequities. Students of color are among those most adversely affected in terms of access to remote learning opportunities, academic support, and mental health services needed to bounce back from this crisis.

Research has shown that one of the many forces that could help interrupt this cycle is a racially representative teacher workforce. In the wake of the pandemic, students of color have been particularly disconnected from the education system. Research suggests that teachers of color appear to be well positioned to reach those students and push them to succeed.

As we collectively confront the educational damage wrought by this health crisis and the harms caused by racial achievement gaps, we hope this report helps educate citizens and policymakers about why it is important to expand and support the ranks of teachers of color and the strategies policymakers should consider to do so.

teacher-student race gap over time and to illustrate some of the educational attainment trends that contribute to it.

We begin with a brief overview of the Wisconsin context for this issue as well as national research on the connection between teacher diversity and student outcomes. The report then draws on several public data sources to:

- Describe Wisconsin's teacher-student race and ethnicity gaps in terms of their magnitude, how they have changed over time, how they differ by race, and how they vary by geography.
- Explore high-level potential causes and conditions of such gaps through analysis of trends by race and ethnicity at selected stages of the teacher pipeline, from high school graduation and postsecondary enrollment, to participation in educator preparation programs.

Finally, we reflect on these trends to illustrate how they affect the nature of the teacher-student race disparities we see today. We find that the share of students of color at each of these stages in teacher development drops, meaning that the share of white students increases at each stage.

Future Forum research will explore questions surrounding the challenges and successes both schools and teacher preparation programs in Wisconsin and nationwide are encountering in addressing this problem. We will use these findings to uncover systems, policies, and structures that both pose barriers and that hold promise to support people of color joining the ranks of and building long-term careers as members of Wisconsin's teacher workforce.

In identifying such barriers and means of removing them, our aim is to bring to light policies and practices that foster equitable educational opportunities and long-term outcomes among both students and future teachers of all races and ethnic backgrounds.

### BACKGROUND

### Achievement gaps in Wisconsin

Wisconsin Policy Forum (WPF) research has documented<sup>5</sup> educational achievement gaps on the basis of race for many years. For example, reading proficiency gaps on Wisconsin's statewide Forward Exam between Black and white third graders over the past four years exceeded 34 percentage points, with fewer than 15% of Black third graders able to read proficiently. The eighth grade Black-white gap in math proficiency is also about 34 points, with fewer than 10% of eighth grade Black students scoring as proficient or higher in math. Disparities also exist in other grades and in comparisons of other race/ethnic subgroups with white students.

Wisconsin's results on the 2019 National Assessment of Educational Progress (NAEP)<sup>6</sup> are perhaps even more discouraging. Over the past decade, NAEP indicators exposed Wisconsin's disparities between Black and white students, in particular, as among the widest in the country. As with Forward Exam results, significant NAEP score differences persist between white students and several groups of students of color, but disparities between white and Black students are especially stark, even when compared to other states. Wisconsin's Black-white score gaps on both reading and math and in both fourth and eighth grade rank it highest of any state in the nation.

Also mirroring national trends,<sup>7</sup> Wisconsin's high school and college readiness measures also show large achievement gaps. Among the most striking, only about 13% of Black high school juniors received English Language Arts (ELA) scores on the 2019 ACT that suggest they are ready to succeed in college-level coursework, and only 4% did so for math. For Hispanic/Latinx students, just over a quarter (27%) scored as ready for college coursework in ELA but only 11% did so in math. These compare to college-readiness rates for white students of 57% in ELA and 35% in math, which are also concerning but considerably higher than those for students of color.<sup>8</sup>

### Students becoming more diverse, while teacher workforce remains largely white

The reality of these disparities takes on added significance considering Wisconsin's K-12 public school students have grown more racially and ethnically diverse over the past decade. As has been true nationwide, students of color comprise an increasing share of the state's total public K-12 student population, growing from 23.6% in 2009 to 30.7% in 2019. (2019 refers to the 2018-19 school year – we refer to years this way throughout the report.) These trends are projected to continue in future years. As has been true nationwide, students of color comprise an increasing share of the state's total public K-12 student population, growing from 23.6% in 2009 to 30.7% in 2019. (2019 refers to the 2018-19 school year – we refer to years this way throughout the report.)

Coupled with the trends in achievement gaps based on race cited above, this pattern constitutes a call for action to improve educational outcomes for students of color. One promising response – supported by a growing body of research nationwide – would be to increase the diversity of Wisconsin's teacher workforce.

Research suggests that teacher diversity benefits all students. For students of color and those experiencing poverty in particular, however, attendance in a school whose teachers reflect the racial and ethnic makeup of the students and/or assignment to a teacher who reflects the student's own race or ethnicity has been shown to be particularly important as a means of improving educational outcomes and reducing achievement gaps.

Unfortunately, as this report will show, the vast majority of the teacher workforce, both in Wisconsin and throughout the United States, has remained white. The result is a large and growing gap where the proportion of students of color across the state and in almost every school district far outpaces that of teachers of color. Although some districts have initiated efforts to diversify their teaching ranks, the share of Wisconsin teachers who are white has remained at around 95% for the past decade, whereas the share of both Black and Hispanic/Latinx teachers each has hovered at around 2%.

These patterns are not unique to Wisconsin. Federal education data<sup>11</sup> show that white teachers comprised about 80% of all teachers nationwide between 2004 and 2016, while Black teachers dropped from about 8% to 7% and Hispanic/Latinx teachers rose from about 6% to 9% in that time. A Washington Post analysis of student and teacher data from 2017 and 2018 found that underrepresentation of Black, Hispanic/Latinx, and Asian teachers (relative to student populations) exists in virtually all school districts across the country.<sup>12</sup>

Compounding the problem are well-documented teacher shortages throughout the state, especially for certain specialties and student populations (such as bilingual education, math, music, and special education). Moreover, among the state's relatively small share of teachers of color, previous research by the Forum and others Has found higher turnover and attrition compared to white teachers, a pattern that also reflects national trends. 15

### More progress on teacher workforce diversity policies needed

Recent policy developments signal a recognition among some state policymakers of the need to act. In his proposed 2019-21 budget, Governor Evers sought to assist students of color pursuing a career in teaching by converting an existing state higher education loan forgiveness program aimed at such students to a grant program. Although that proposal did not survive the budget process, lawmakers subsequently adopted legislation to expand the definition of eligible students of color in the current loan program and widen the reach of the program to include any public, private, or tribal school where students of color make up at least 40% of the student population (instead of limiting the program only to schools located in Milwaukee).<sup>16</sup>

Nevertheless, the large and growing disparity between the share of students and teachers of color in Wisconsin suggests that more far-reaching efforts should be considered to improve the racial and ethnic representation of Wisconsin teachers. Such efforts not only could contribute to improvements in K-12 educational equity, opportunity, and outcomes, but also could help address teacher workforce shortages and enhance career opportunities for students of color.

### Benefits to student outcomes linked to teacher diversity

Wisconsin's racial disparities in academic achievement limit equitable access to educational, employment, and other opportunities and carry profound implications for racial equity and inclusion as well the overall economy and quality of life across the state. What, then, should be the role of state K-12 education policy and local school practice in addressing this urgent challenge? Not surprisingly, among school-related determinants of student achievement, teachers have been shown to have the most influence. The Moreover, a growing body of research nationwide, mostly over the past 15 years, suggests that students who attend schools where they have access to teachers who reflect their own race and ethnic background benefit in a wide variety of ways.

These studies vary considerably in terms of research design, grade level studied, race of students and teachers included, outcome measured, time frame, effect size, and other factors. However, on balance, this body of work points to a range of benefits to students associated with a diverse teacher workforce in general and student-teacher race matching, in particular. The majority of documented benefits fall into the following categories (see the Appendix for references):

- Gains in academic achievement, such as higher standardized test scores in math and reading, especially in elementary and middle school grades
- Benefits on measures of student engagement linked to future academic achievement such as higher attendance/lower absenteeism, lower rates of suspensions, fewer discipline referrals, and lower probability of dropouts
- Access to challenging coursework such as enrollment in advanced placement courses and higher teacher referrals for gifted-and-talented programming
- Benefits to the teacher-student relationship and higher student motivation, academic behavior, and social emotional skills that are associated with higher measures of academic performance and school engagement
- Higher teacher expectations of student ability and more favorable assessment of student work
- Attainment of longer-term educational and life outcomes through higher high school GPAs, increased high school completion rates, greater likelihood of college aspirations, greater likelihood of taking a college entrance exam, higher SAT scores, increased college enrollment and completion rates, increased rates of employment, and lower use of public benefits

In the context of Wisconsin's long-standing and severe racial achievement gaps, the severe underrepresentation of teachers of color in Wisconsin schools suggests the state is failing in an area that research has shown to be beneficial in promoting academic and long-term success for students of color. Although a diverse teacher workforce is important for both teachers and students of all backgrounds, the principal policy driver of this and forthcoming reports in our series is the premise that this paradigm needs to change.

### PERSISTENT GAPS BETWEEN TEACHERS & STUDENTS OF COLOR

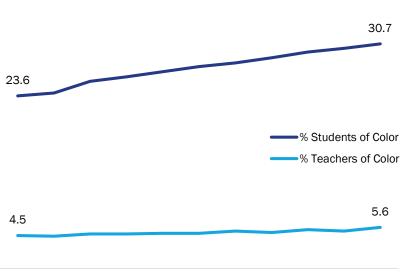
In this section, we use Wisconsin Department of Public Instruction (DPI) public school enrollment and staffing data to illustrate several dimensions of Wisconsin's student-teacher race gap. State-level analysis includes traditional district schools, district charter schools, and independent charter schools. District-specific references omit independent charter schools. In the group referenced throughout this report as teachers, we have included primarily teachers but also related school staff including principals and assistant principals, social workers, counselors, psychologists, librarians, and speech/language pathologists.

Inclusion of enrollment and teacher staffing data by race for private schools, especially those participating in Wisconsin's three publicly funded parental choice programs, would provide a more complete picture of the challenges Wisconsin faces with regard to maintaining a racially representative teacher workforce throughout the state. This would be particularly helpful for viewing teacher workforce and student-teacher race gap trends in Milwaukee and Racine, where enrollment in publicly funded parental choice tuition programs has steadily grown (to nearly 40% of total school enrollment in Milwaukee and 20% in Racine). However, to date, there is no centralized statewide public data source for private schools that provides enrollment and staffing data parallel to what is

available for public schools in its disaggregation by race. (A more complete explanation of our methodology can be found in Appendix I).

Between 2009 and 2019, the number of public K-12 students of color in Wisconsin increased by 28.2% or 58,080 students. As shown in Figure 1, as a share of all students, students of color grew from 23.6% to 30.7%. Meanwhile, although the rate of growth in the number of teachers of color was similar (688 teachers or 22.5%), teachers of color as a share of all teachers increased by only

Figure 1: Teachers and Students of Color in Wisconsin
Percent of total in public schools



Source: Wisconsin Department of Public Instruction

1.1 percentage points (to 5.6%). This widened the gap between students and teachers of color from 19.1 percentage points in 2009 to 25.1 points in 2019.

This pattern varies by race, however. In both raw numbers and as a share of their overall groups, Black students and teachers have declined (the shares by about 14% and 11%, respectively) since 2009 (see Figure 2). Black students now make up just over 9% (77,839) of K-12 students, while

Black teachers are down to 2.1% (1,402) of all teachers. The gap between these percentages has decreased by 1.1 points, however.

Conversely, both Hispanic/Latinx teachers and students have more than doubled their numbers in the past decade, and their share of the overall student and teacher populations have grown as well (Figure 3). Yet, the gap between them has widened every year since 2009. By 2019, Hispanic/Latinx students made up 12.3% of all students, while Hispanic/Latinx teachers comprised just shy of 2.0% of all teachers statewide.

How do these patterns compare to national trends? As in Wisconsin, both student and teacher diversity across the United States has grown in recent years. 19 Relative to national figures, however, Wisconsin is less racially and ethnically diverse.

This is particularly true with regard to its teacher workforce. As of 2016 (the most recent data available), students of color comprised just over half (51.8%) of all public K-12 students

Figure 2: Black Teachers and Students in Wisconsin
Percent of total in public schools

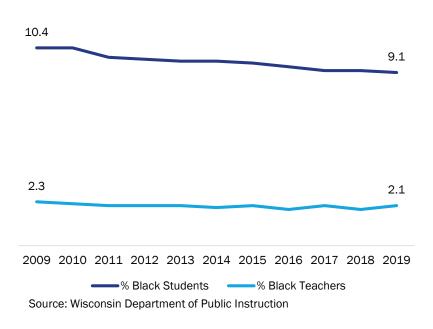
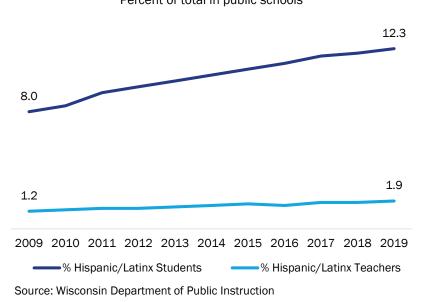


Figure 3: Hispanic/Latinx Teachers and Students in WI
Percent of total in public schools



nationwide (compared to just under a third in Wisconsin in 2019), while teachers of color made up almost a fifth (19.9%) of the national teacher workforce (compared to less than 6% in Wisconsin in 2019). Still, the gap between students and teachers of color at the national level is wider (31.9 percentage points) than Wisconsin's (25.1 points). As these comparisons demonstrate, the Wisconsin student-teacher race gap, while clearly a cause for concern, is not unique from a national perspective.

As Figure 4 also makes evident, disparities in representation between teachers and students by race is by no means a phenomenon limited to urban school districts. The gaps also show up in suburbs, towns, and rural areas.

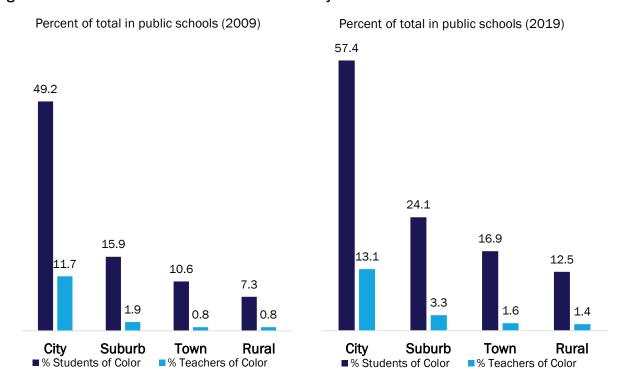


Figure 4: Wisconsin Teachers and Students of Color by Locale

Source: Wisconsin Department of Public Instruction, National Center for Education Statistics

Between 2009 and 2019, disparities in all four locales widened, with the gaps between them driven almost exclusively by the rate of growth in the share of students of color. In cities, students of color now make up a majority (57.4%) of all students. However, gaps in towns and rural areas show the greatest rate of change. The gap in towns went from almost 10 points to 15 points, while rural school communities saw the gap widen from 6.5 to 11.1 points.

Black students have fallen as a percentage of all public school students (including both traditional district schools and independent charter schools); that is particularly the case in cities, where Black students fell from 26.3% in 2009 to 23.0% in 2019. Black teachers declined in cities as well, but by less than one percentage point to 6.0% in 2019 (and also holding steady at less than 1.0% in the three other locales).

In contrast, Hispanic/Latinx teachers and students both increased since 2009 in all four types of communities, with the growth in students driving a widening of the gap. In cities, Hispanic/Latinx students grew by 6.0 percentage points to 21.2% by 2019, compared to growth in teachers of 1.3 points to 4.4%. Hispanic/Latinx students made up just under 10% of students in suburbs and towns in 2019 and about 6% in rural areas, while teachers comprised about 1% or less in all three areas.<sup>a</sup>

alt should be noted that demographic shifts across these locales over time may be affected by the growth in enrollment in private schools participating in the Milwaukee, Racine, and statewide Wisconsin parental choice programs.

Figure 5 displays the 17 school districts where students of color were a majority in 2019. In none of these districts is the gap between the shares of students and teachers of color fewer than 40 percentage points, with a range of 40.5 percentage points in the suburban Milwaukee district of Glendale-River Hills to rural Lac du Flambeau's gap of 86.3 points. This further demonstrates that student-teacher race disparities are widely distributed throughout Wisconsin. The darker the dot, the more concentrated the population of students of color in that district.

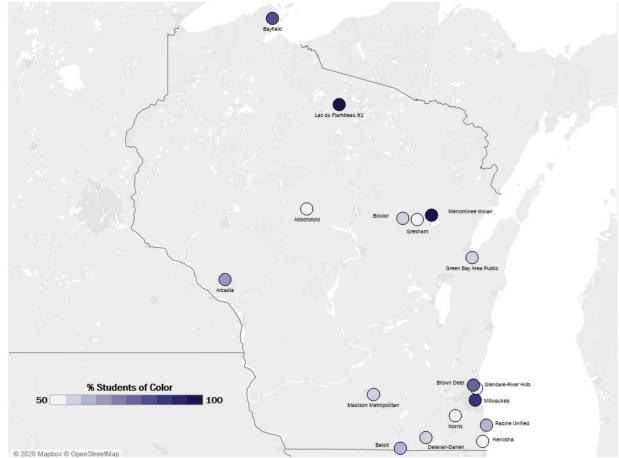


Figure 5: Wisconsin School Districts with Majority Students of Color (2019)

Source: Wisconsin Department of Public Instruction

A key observation is that 10 of these districts also had the highest proportions of teachers of color in the state – suggesting that even (and perhaps especially) where teachers of color are most common, we find some of the highest disparities in teacher representation of student populations by race in the state.

It is also worth considering where these gaps appear to be most dynamic over time. Table 1 lists the 10 school districts (all but one urban or suburban) where the difference between the share of students of color and of teachers of color has grown the most between 2009 and 2019. This list largely overlaps with changes for Black and Hispanic/Latinx students and teachers as well. Only Green Bay Area and Kenosha also appear in the map shown above, suggesting the demographic shifts that have widened these gaps in the state as a whole over the past decade likely will continue to reshape the student-teacher demographic landscape in the years to come.

Table 1: Top 10 Wisconsin School Districts (with 2,000+ students)

Largest increase in teachers/students of color gap, 2009 to 2019 (percentage points)

			Percentage Point	
District	2009 Gap	2019 Gap	Change in Gap	Locale
West Allis-West Milwaukee	27.3	44.5	17.2	City
Greenfield	24.2	40.5	16.3	Suburb
Green Bay Area Public	35.3	49.9	14.6	City
South Milwaukee	15.7	29.2	13.5	Suburb
Fond du Lac	12.5	25.8	13.3	City
Sheboygan Area	32.5	45.4	12.9	City
Kenosha	32.8	44.9	12.1	Suburb
Manitowoc	21.3	32.7	11.4	Town
Greendale	12.9	24.1	11.2	Suburb
Sun Prairie Area	19.7	30.9	11.2	Suburb

Source: Wisconsin Department of Public Instruction

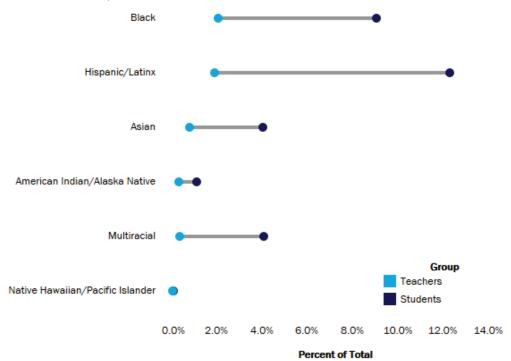
Finally, the widespread nature of the underrepresentation of teachers of color in Wisconsin is exemplified by the fact that very few districts in Wisconsin (all of which are small) have proportions of teachers of color that equal or exceed their proportions of students of color. In 2019, 25 out of more than 400 districts had a larger share of Black or Hispanic/Latinx teachers than students, and all but six had less than 3% Black or Hispanic/Latinx teachers.

### Summary of race-gap analysis

Figure 6 summarizes where Wisconsin stood as of 2019 with respect to representation by race between students and teachers statewide. As noted, Black and Hispanic/Latinx students and teachers are the largest populations of color in Wisconsin and also exhibit the largest disparities in teacher representation. White is the only race category where the percentage of teachers outpaces the percentage of same-race students (white students comprise about 70% of the student population while white teachers make up about 95% of all teachers). Again, these patterns are not unique to Wisconsin, as the Black and Hispanic/Latinx student-teacher race gaps at the national level in 2016 were larger than those in Wisconsin, mainly because students of color comprise a larger share of the total nationally than is the case in Wisconsin.<sup>20</sup>

Figure 6: Teachers and Students of Color in Wisconsin

Percent of total in public schools, 2019



Source: Wisconsin Department of Public Instruction

The small teacher-student race gap for American Indian/Alaska Native teachers and students may be somewhat misleading. Although the gap is minimal from a statewide perspective (a difference of 0.8 points with 0.3% teachers and 1.1% students), most of these students are enrolled in school districts where they represent at least a quarter of the student population and teachers represent less than 3.0% of all teachers. Three such districts have no American Indian/Alaska Native teacher at all.

It is also important to recognize that the district-level analyses here and throughout this section do not drill down to the school level, where further misalignment of teacher and student assignment by race may be present.

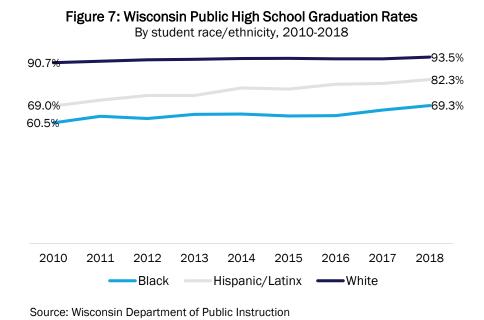
## THE STUDENT-TO-TEACHER PIPELINE AND ITS IMPACT ON TEACHER WORKFORCE DIVERSITY

To gain a better understanding of why Wisconsin lacks a proportional representation of teachers of color, it is useful to consider the demographic trends at key stages of the educational pipeline. In this section, we analyze such trends over the past decade at three key educational junctures: high school graduation, postsecondary enrollment, and participation in educator preparation programs.

### **High School Graduates**

A major factor driving the racial makeup of Wisconsin's teacher workforce is the number of students graduating from high school each year, as only high school graduates have the educational credentials to pursue the postsecondary education that is required to become a teacher. For this analysis, we include DPI data on public school students (those who attend traditional public schools, district charter schools, and independent charter schools) who graduated from public high schools in four years with a regular diploma.

Between 2010 and 2018, the overall graduation rate among all students of color climbed from 67% to 79%. This brought students of color as a share of all high school graduates up by 7.0 percentage points to 23.8%. By comparison, the overall statewide graduation rate increased as well, but by only 3.9 percentage points. Still, the high school graduation rate among students of color lags considerably behind the statewide average of 89.6% in 2018.



Driving the increase in students of color as a fraction of all high school graduates statewide is the growth of Hispanic/Latinx students – who increased by 4.5 percentage points to comprise 9.4% of all high school graduates by 2018, the highest growth over the period of any race group. As shown in Figure 7, this growth stems in part from growth in the Hispanic/Latinx graduation rate, which climbed to 82.3% in 2018 and exceeded the 2017 national average of 80.0%.<sup>21</sup>

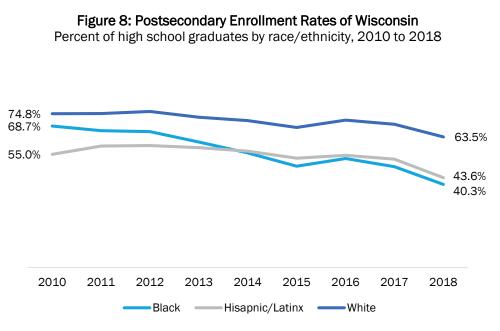
Meanwhile, the graduation rate of Black students increased over the period by 8.7 percentage points, hitting almost 70% by 2018. However, this is still consistently the lowest graduation rate of any race group and lower than the 2017 national average of 77.8%.<sup>22</sup> Black students as a share of high school graduates remained steady at about 7% throughout most of the last decade.

Another important point of context is how Wisconsin ranks among all states on achievement gaps by race on high school graduation rates. On this measure, results here raise serious concerns. The white-Black high school graduation rate disparity in Wisconsin was the largest of any state in 2017 (25.7 points). Meanwhile, with a gap of 12.4 points between white and Hispanic/Latinx students, Wisconsin ranked within the top third (15th) nationwide.<sup>23</sup>

### Enrollees in postsecondary institutions

The next milestone toward becoming a teacher is college enrollment. Figure 8 draws on National Student Clearinghouse data as reported by DPI to display the rate by race of enrollment of Wisconsin high school graduates in any two- or fourvear postsecondary institution (not just those located in Wisconsin) between 2010 and

2018. It is



Source: National Student Clearinghouse as reported by Wisconsin Department of Public Instruction

important to note that overall rates of enrollment of high school graduates in postsecondary institutions have been dropping in the past decade or so (by 13.5 percentage points to 59.3% by 2018). Just over 40% of Black and Hispanic/Latinx high school graduates enrolled in institutions of higher education in 2018 compared to 63.5% of white students.

One concerning trend is the erosion in college enrollment by Black students. At the beginning of the decade, Black high school graduates were enrolling in college at rates closer to those of whites although a gap existed. By 2014, however, Black postsecondary student enrollment fell well below white students and below the rate for Hispanic/Latinx students as well, despite the other two groups also seeing declines.

Moreover, while students of color as a group increased as a share of statewide high school graduates enrolling in college (from 15.9% in 2010 to 19.5% in 2018), these percentages grew more slowly and remain lower than the share of students of color who graduated from high school (16.8%)

to 23.8%). Students of color also comprise a far smaller share of college enrollees than white students (80.5% in 2018).

Completion of postsecondary credentials and degrees for students of different races is another key milestone to consider. DPI's main source of public data does not disaggregate postsecondary completion rates by race (an issue that deserves attention if data are to inform policymaking in this arena), but national trend data suggest that Black and Hispanic/Latinx students continue to fall as a share of both those attaining a bachelor's degree and those pursuing a major specifically in education.<sup>24</sup>

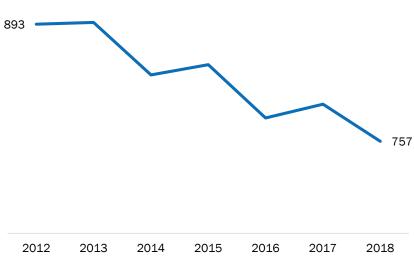
For example, federal data on those who enrolled in bachelor's degree programs in 2011 and who graduated within six years show graduation rates for white students at 64.4%, Hispanic/Latinx students at 55.0%, and Black students at 39.8%.<sup>25</sup> If this pattern holds true for Wisconsin, then such disparities are further narrowing the stream of potential teachers of color in the state's teacher workforce.

In summary, postsecondary enrollment rates for all categories of students have been going down over the past decade, and rates for students of color remain well below the enrollment rate for white students. At the same time, students of color have grown as a share of high school graduates enrolling in college over the past decade. However, the pool of potential teachers of color nevertheless diminishes when we compare students of color enrolling in college to high school graduates of color.

### Participants in educator preparation programs

The final milestone would-be teachers must reach before seeking their teaching license and employment is enrollment in (and ultimate completion of) a teacher preparation program. Aside from retention of current teachers, measures of the flow of teachers into and through the state's teacher preparation programs provide the clearest signal of the future stability of the state's teacher workforce in general and its racial diversity in particular.

Our analysis of federal teacher preparation program data shows a precipitous decline in the overall number of students enrolling in Wisconsin teacher preparation programs. Between Figure 9: Enrollment of Students of Color in Wisconsin Educator Preparation Programs
Student count, 2012 to 2018



Source: National Teacher Preparation Data, Higher Education Act Title II Reports, U.S. Department of Education

2012 and 2018, enrollment dropped by over a third (33.4%) from 11,620 students to just 7,739.

Driving this decline was white students, who comprised at least 90% of enrollees in any given year and whose numbers fell by almost 35% (from 10,727 students to 6.982).

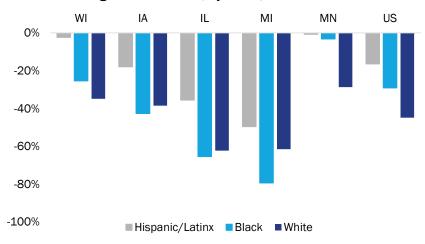
Figure 9 shows a smaller but still substantial decline in the number of students of color enrolled in Wisconsin's teacher preparation programs. All students of color made up a small fraction of overall enrollment in this period, and their ranks declined by 15.2% between 2012 and 2018. Hispanic/Latinx students, the largest group of students of color, held relatively steady, falling only 2.4% (to 283 students) in the period. Black students, on the other hand, dropped by just over a

quarter (25.4%), while Asian students fell by 18.3%. American Indian students comprised only about 1% of students, but their numbers also took a hit, dropping by half to only 45 students by 2018.

As shown in Figure 10, Wisconsin is not alone in experiencing both an overall decline in teaching candidates and a decline in enrollment of students of color in the 2012-2018 timeframe. In fact, both the U.S. as a whole and all of Wisconsin's neighboring states except Minnesota saw deeper declines among teacher candidates of all races. Across the U.S., teacher preparation program enrollment dropped by somewhat more than it did in Wisconsin (39.0% compared to Wisconsin's 33.4%).

Although the overall pool of students preparing to be teachers has been shrinking, students of color saw a 2.1 percentage point uptick as a share of all enrollees (as shown in Figure 11). As a group, however, this growth brought students of color up to only about 10% of all

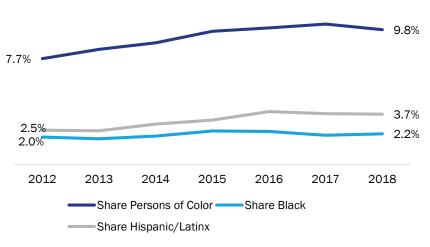
Figure 10: Percent Change in Teacher Preparation Program Enrollment, by State, 2012 to 2018



Source: National Teacher Preparation Data, Higher Education Act Title II Reports, U.S. Department of Education

Figure 11: Percent Enrollment in Wisconsin Educator **Preparation Programs** 

By race/ethnicity, 2012 to 2018



Source: National Teacher Preparation Data, Higher Education Act Title II Reports, U.S. Department of Education

enrollees by 2018. Black and Hispanic/Latinx students both increased slightly, reaching 2.2% and 3.7% of all enrollees by 2018.

What happens to the racial makeup among those who complete teacher preparation programs? Unfortunately, like other data sources previously mentioned, the federal reports on teacher preparation programs we analyzed do not disaggregate data on program completers by race. This omission impedes informed analysis and should be addressed.

However, even in the absence of such data, it is helpful to note that the overall number of students who complete one of Wisconsin's teacher preparation programs in a given year represents only a fraction of the number of students enrolled. In 2018, that fraction was just over a third (35.5%), suggesting completion rates by any individual racial group also will narrow the pipeline. Given variations in enrollment rates, it is also likely that among those who do complete the programs, students of color likely comprise a smaller share than white students.

We can also gauge potential racial variations in teacher preparation program completion rates by viewing the pass rates of assessments required for program completion for most teacher candidates that are published by DPI.

Table 2 shows how these pass rates differed by race among candidates who took two such assessments in 2017: the Praxis II subject area assessment and the Foundations of Reading Test (FORT).<sup>26</sup> These figures show that performance by teacher candidates of color lags significantly behind that of white candidates.

Table 2: Wisconsin Educator Preparation Program
Assessments

Pass rates by race/ethnicity (2017)

Group	Praxis II	FORT			
All		75%			
Asian	64%	64%			
Black	42%	43%			
Hispanic/Latinx	63%	58%			
Native	60%	53%			
Other/Multi-Racial	61%				
Multiracial		67%			
White	92%	77%			

Source: Wisconsin Department of Public Instruction, 2018 Annual Report on Educator Preparation Programs These figures are not a substitute for data showing actual educator program completion by race. However, to the degree that passing scores on these assessments can be considered prerequisites for most teacher candidates completing an educator preparation program and/or obtaining a teaching license, the disparities in passing rates strongly suggest teacher candidates of color lag behind their white peers in acquiring the credentials to become a teacher, further narrowing the pipeline of potential teachers of color in Wisconsin.

Reasons for such disparities, including whether disparities by race in pass rates on

these tests indicate racial bias against students of color, are among the issues we will explore in subsequent research on barriers and solutions to teacher workforce diversity in Wisconsin. However, it is helpful to recall here the racial disparities in student outcomes that afflict Wisconsin's educational landscape. From that perspective, it is not a leap to surmise that lower rates of postsecondary enrollment as well as pass rates for teacher preparation assessments for students of color may be linked to whether a student's experience and opportunities in their K-12 years provided the social-emotions conditions and academic rigor and support needed to successfully matriculate through higher education and teacher preparation programs.

### EMPLOYED TEACHERS IN WISCONSIN PUBLIC SCHOOLS

When considering teacher workforce trends by race, it is important to remember that Wisconsin's teacher workforce has been shrinking overall – a concern in and of itself that policymakers and educators have been studying and attempting to address in earnest in recent years.<sup>27</sup>

The number of teachers statewide fell by 1.4% between 2009 and 2019, while the K-12 student count dropped at a similar rate (1.5%). As shown in Figure 12, driving the drop in teachers is white educators, who consistently have made up about 95% of all Wisconsin teachers and whose ranks have fallen by 2.5% in that time.

Although teachers of color have increased in number and as a share of the teacher workforce, as noted, they still make up less than 6% of all educators. Figure 13 shows how these trends have affected the distribution of teachers of color across the state over time.

We can glean additional perspective on the diversity of Wisconsin's teacher workforce by comparing its racial composition to that of the state's total potential workforce. According to U.S. Census Bureau data, white adults over the age of

Figure 12: Change in Number of Wisconsin Public School
Teachers
By race/ethnicity, 2009 to 2019

407

459

-179

-926

Source: Wisconsin Department of Public Instruction

All teachers

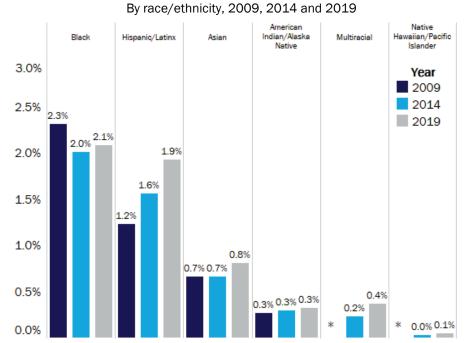
White

Figure 13: Percent Distribution of Wisconsin Public School Teachers

Black

All other Teachers of

Color



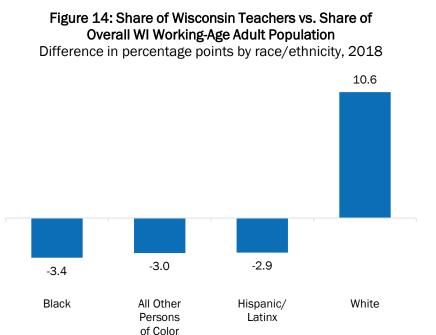
\* indicates racial/ethnic groups were not used by DPI prior to 2011 Source: Wisconsin Department of Public Instruction

Hispanic/Latinx

teachers

25 represented between 84% and 89% of the wider population between 2010 and 2018.<sup>28</sup> White teachers, meanwhile, consistently have outpaced this measure, comprising about 95% of the teacher workforce in the past decade.

By comparison, while Black teachers comprised 2.1% of teachers in the state in 2019, Black Wisconsinites over the age of 25 made up about 5.2% of total Wisconsin adults in that age group in 2018. Similarly, Hispanic/Latinx adults over age 25 as a share of the total was 4.8% in 2018 compared to only 1.9% of teachers. Figure 14 illustrates the extent to which communities of color are underrepresented as a share of the overall teacher workforce relative to the wider adult working age population.



Sources: Wisconsin Department of Public Instruction; U.S. Census Bureau, WPF calculations

#### **Teacher retention**

Although outside the scope of this analysis, it is important to note that retention is as important as attraction when it comes to maintaining a stable, robust, and racially representative teacher workforce. Previous Forum research<sup>29</sup> documented an increase in recent years in teachers leaving the profession at relatively young ages and early stages of their careers, creating vacancies that threaten the stability and sustainability of the teacher workforce. Moreover, we found that attrition rates among teachers of color in Wisconsin were higher than overall attrition rates, a pattern that reflected similar national trends.

A recently published study<sup>30</sup> by researchers at the University of Wisconsin-Milwaukee (UWM) in collaboration with DPI provides deeper insight into Wisconsin's troubling attrition trends among teachers of color. The UWM study found that between 2017 and 2019, 42% of Black teachers and 31% of Hispanic/Latinx teachers had left the school where they were teaching, compared to only 23% of white teachers. Almost 18% of Black teachers and 13% of Hispanic/Latinx teachers had left public education altogether in that two-year period, compared with just under 10% of white teachers.

Why retention rates for teachers of color are lower than that for white teachers is among the questions we are exploring in the second phase of this research.

### CONCLUSION

The various trends analyzed in this report are summarized in Figure 15 and lead to two principal observations about the racial/ethnic patterns within Wisconsin's teacher workforce.

First, the percentage of people of color at each educational milestone has increased over the past decade, but that is not necessarily producing an increase in the number of people of color in the teacher pipeline. The percentage increases shown in the figure are encouraging, but they are mainly attributed to declining trends among white students/teachers, which dropped during the past decade at every educational level. For example, the number of students of color who enrolled in postsecondary institutions dropped by 6.2% in the past decade, but they increased as a share of the total because statewide postsecondary enrollment declined more dramatically (by about 25%).

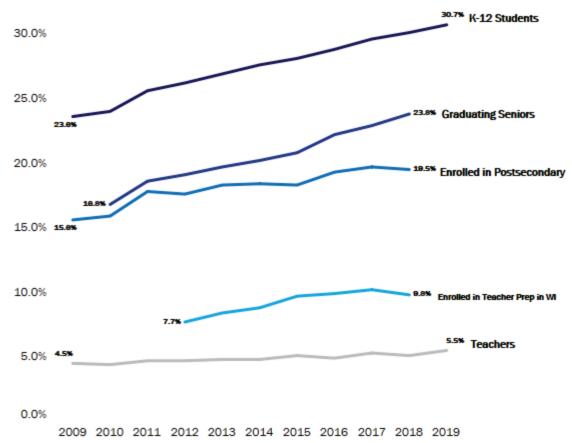


Figure 15: People of Color by Education Level over Time (Percent of Total)

Sources: Wisconsin Department of Public Instruction; National Student Clearinghouse as reported by DPI; National Teacher Preparation Data, Higher Education Act Title II Reports, U.S. Department of Education

Second, the share of people of color who might potentially pursue a career in teaching falls significantly as they progress down the educational pathway. Students of color made up 30.1% of all public K-12 students in 2018, but only 23.8% and 19.5% of public high school graduates and postsecondary enrollees, respectively. At the educator preparation level, students of color as a share of all teacher preparation enrollees statewide drops to 9.8%. The fact that teachers of color comprise

only 5.6% of the teacher workforce in 2019 is more readily understandable when considering these drop-offs at each milestone in the pathway.

In contrast to trends among students of color as a group, Black students did not increase as a share of the overall population at every educational level. Black students saw their share among graduating seniors and teacher preparation enrollees increase slightly. Overall, though, similar to what we observe among students of color as a group, the percent of Black students at each educational level also drops from the K-12 enrollment level to employment as a public school teacher (Figure 16).

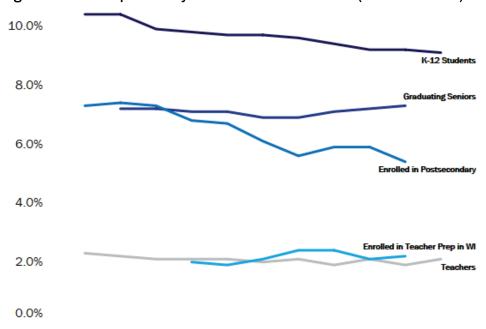


Figure 16: Black Population by Education Level over Time (Percent of Total)

2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019

Sources: Wisconsin Department of Public Instruction; National Student Clearinghouse as reported by DPI; National Teacher Preparation Data, Higher Education Act Title II Reports, U.S. Department of Education

On the other hand, Hispanic/Latinx students are driving the overall upward statewide trend over time of students of color (Figure 17). However, similar to the pattern statewide, Hispanic/Latinx students as a share of all students experience the same pronounced drop-off at each educational level.

12.0%

10.0%

Graduating Seniors

8.0%

Enrolled in Postsecondary

4.0%

Enrolled in Teacher Prep in WI

2.0%

Teachers

Figure 17: Hispanic/Latinx Population by Education Level over Time (Percent of Total)

2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019

Sources: Wisconsin Department of Public Instruction; National Student Clearinghouse as reported by DPI; National Teacher Preparation Data, Higher Education Act Title II Reports, U.S. Department of Education

In summary, although the share of teachers of color in Wisconsin has been rising in recent years, their numbers remain alarmingly low and their growth has not kept pace with the growth in students of color. This has resulted, in part, from the fact that the pool of people of color has diminished at key educational milestones along the educator pipeline.

Despite these narrowing trends, each stage offers opportunities for policy interventions to expand the number of people of color in the teacher pipeline, such as alternative credential pathways and strategies to improve teacher retention. Strategies that focus on barriers that may discourage young students of color from considering or having the educational credentials to consider the teaching profession hold particular promise.

This report is the first in a series of reports on teacher workforce diversity in Wisconsin. Future installments will draw on the perspectives of educators and policymakers in Wisconsin and elsewhere to uncover drivers of Wisconsin's teacher diversity challenges and explore potential solutions. Specific areas of research will include the following:

1. Factors influencing the pipeline of teachers of color: What are the challenges and opportunities associated with students of color entering bachelor's degree programs and educator preparation programs? Just as important, what are the barriers that may be discouraging them from program completion, obtaining a teaching license, finding a teaching position, and staying in the profession beyond the first few years? Are there particular

programs or strategies that have a track record of success in addressing these issues and to what extent are they being implemented in Wisconsin?

- 2. Challenges and opportunities for improving teacher diversity: What do school districts, school leaders, and teachers see as the major challenges and opportunities surrounding teacher diversity in their jurisdictions? Where are efforts to expand and stabilize teachers of color in the overall teaching workforce working, and could such practices be replicated and scaled in places where there has been little progress?
- 3. **Policy options**: In light of Wisconsin's particular challenges with growing its corps of teachers of color as well as successful teacher diversification efforts in this state and nationwide, what are the most promising and feasible policy options that Wisconsin policymakers and education leaders should consider?

We are hopeful that answers to these and related questions will help illuminate the practical steps policymakers and educators can take to build a stable, racially representative teacher workforce in Wisconsin.

### APPENDIX I: METHODOLOGY

The data sources and methodology we used for these analyses stem from two principal research objectives.

First, we sought to document the overall disparities between how Wisconsin K-12 students and teachers are represented by race/ethnicity in public schools. In this report, the term "public school" includes all traditional schools that are part of school districts, school district-authorized charter schools, and independent charter schools. District-level analyses include the charter schools authorized by school districts, but do not include independent charter schools (which are treated in DPI data as if they were stand-alone school districts).

For some aspects of this report, it would have been useful to include data from private schools, especially those that receive state funding through Wisconsin's three parental choice programs. However, private school data needed for this analysis are either not available or are not reported in a comparable format to public school data. Data from these schools are therefore not included as part of this analysis.

Second, we sought to uncover trends that could help explain disparities by race between students and teachers by illustrating how the flow of students of color narrows at selected points along the student-to-teacher pipeline, including high school graduation, postsecondary enrollment, and participation in educator preparation programs.

We cleaned each dataset to include the observations and data elements we needed for our analysis for the academic years of 2008-2009 through 2018-2019. We refer to an academic year by the latter of its two calendar years (i.e., the 2008-09 academic year appears as 2009). While we were conducting our analysis, some data sources were available for only some years within that 11-year time frame. As such, data years that have become available subsequent to when we conducted our analysis are not included.

The majority of this analysis draws on five principal datasets:

- 1. K-12 student enrollment data from the Wisconsin Department of Public Instruction (DPI) for all Wisconsin public schools
- 2. High school graduation data from DPI for all Wisconsin public high schools
- 3. Postsecondary enrollment data for Wisconsin public high school graduates who received a regular high school diploma within four years. Data comes from a cross-reference between DPI and National Student Clearinghouse data.
- 4. Data on enrollment in DPI-approved Wisconsin educator preparation programs, using information in federal Title II Higher Education Act reports
- 5. Teacher staffing data from DPI for all Wisconsin public schools

The following documentation provides more detail on the datasets we used, how we analyzed the data, and any limitations in the data.

### Race terminology used in this report

Throughout this report, we refer to student and teacher race using terms that appear in the first row of the table below. The table also shows how the terms we use correspond with the terminology used by the data sources underlying our analyses.

#### Alignment of race terms in report with terms used by data sources

				•				
Terms we use in this report	American Indian/ Alaskan Native (AIAN)	Asian	Black	Hispanic/ Latinx	Native Hawaiian/ Pacific Islander (NHPI)	White	Multiracial	
DPI (K-12 enrollment, high school graduation, postsecondary enrollment)	American Indian	Asian	Black	Hispanic	Pacific Isle (2011 and later)	White	Two or More (2011 and later)	Unknown
Title II Higher Education Act (Educator preparation participation)	Indian	Asian	Black	Hisp/Latin of any race	Islander	White	Multiracial	
U.S. Census (for national comparisons to Wisconsin data)	American Indian or Alaska Native alone	Asian alone	Black or African American alone	Hispanic or Latino	Native Hawaiian or Other Pacific Islander alone	White alone, not Hispanic or Latino	Two or more races	Some other race alone

### K-12 student enrollment data

K-12 student enrollment data comes from the Wisconsin Information System for Education Data Dashboard from DPI, also known as WISEdash. This information is publicly available for download at <a href="https://dpi.wi.gov/wisedash/download-files">https://dpi.wi.gov/wisedash/download-files</a> in file names beginning with "enrollment\_certified". These data are aggregated at both the school and district level and do not include individual observations. The raw file includes breakouts by race/ethnicity, gender, English proficiency status, economic disadvantage status, and disability status. In each year, we pulled district-level enrollment data for all students, including racial and ethnic groups. Previous to 2011, this included white, Black, Hispanic, Asian, and American Indian. This was expanded afterwards to include the categories of Two or More and Pacific Isle. As such, it should be noted that it is not possible to determine how students who identified as Two or More or Pacific Isle might have been categorized before 2011. Caution should be exercised, therefore, in comparing trends immediately before and after 2011.

Enrollment files were cleaned to include only the following observations: a) those at the district level; and b) groupings by race/ethnicity as well as English proficiency status and economic status (for potential future analyses). Files for each year from 2009 to 2019 were then combined. Percentage

makeup of each racial group and all students of color by district were derived from dividing the "number of students" count for each race category by each district's value for "All Students." Other information retained in this file included district Cooperative Education Service Agency (CESA), county, four-digit district code, and an indicator for whether or not the district is an independent charter school. Values for geographic locale come from the National Center for Education Statistics.

### High school graduation data

High school graduation data also comes from DPI's WISEdash tool, with file names beginning with "hs\_completion\_certified." As with the K-12 enrollment data, these data are aggregated at both the school and district level and do not include individual observations. The raw file includes breakouts by race/ethnicity, gender, English proficiency status, economic disadvantage status, and disability status. We looked only at breakouts at the district level and by race/ethnicity. At the time when we were completing the analysis for this report, DPI only had data as recent as 2018.

These files contain information on the number of students receiving a high school completion credential within four, five, six, and seven years. In addition to information on students graduating from high school with a regular diploma, these files include information on the relatively small numbers of students receiving alternative or equivalent high school completion credentials. For the purposes of this report, we considered only aggregate district-level counts of students receiving a regular diploma within four years.

In addition, the state redacts information when fewer than six students are included in a group. For example, many districts graduate between one and five students of one or more non-white racial groups each year. District-level data have been redacted in all of these instances. However, graduation analyses in this report are at the state level where no information has been redacted in any year included in this report.

### Postsecondary enrollment data

As part of DPI's WISEdash online tool, DPI presents information on postsecondary enrollment of Wisconsin students who are high school graduates by merging data on Wisconsin high school completers with data on postsecondary enrollment of these students from the National Student Clearinghouse (NSC). The NSC is a non-partisan, nongovernmental organization that compiles individual-level postsecondary data from students at over 3,600 colleges and universities nationwide. Although this does not encompass all postsecondary opportunities nationwide, the NSC is known as the most complete data source in this area.

Along with categories included in other WISEdash datasets, the annual data files we used, "postsecondary\_enrollment\_current", include whether institutions were in-state or out-of-state; two-year, four-year, or less-than-two-year; and public or private. We omitted students attending less-than-two-year programs from the total count of enrollees for each year of data that were available at the time of this analysis (2009-2018). Additionally, DPI includes whether a student enrolled in their institution in the first fall after graduation (where the majority of students are counted), the second fall, or had a later enrollment. In general, we kept data for all three enrollment timeframes. However, numbers for late enrollment in the 2017 data and both late enrollment and second fall enrollment in the 2018 data showed large drop-offs, as it was unlikely that NSC would have this information yet. Therefore, we excluded those groups from our analysis.

DPI issues a number of cautions regarding the use of this data source. Most important for understanding our analysis, "DPI and NSC files are exchanged every few months, and WISEdash is updated based on the most recent postsecondary enrollment update. Institutions of higher education may submit corrected or late postsecondary enrollments which will retroactively impact WISEdash summaries." Because of this, DPI also cautions that postsecondary enrollment "may erroneously show or overstate a downward trend" because of late enrollees. This is apparent in our data, and should be noted with this caveat in mind.<sup>2</sup>

### Data on enrollment in DPI-approved Wisconsin educator preparation programs

Through Title II of the federal Higher Education Act (HEA), data is provided online about educator preparation programs in each state at <a href="https://title2.ed.gov/Public/Home.aspx">https://title2.ed.gov/Public/Home.aspx</a>. For the purposes of this analysis, these data were available from 2012 to 2018. This dataset includes data for DPI-approved educator preparation programs offered through most major universities and colleges in the state but also preparation programs offered by CESAs 1, 6, and 7, as well as other institutions.

Racial/ethnic data in this dataset are presented differently than in the DPI datasets used in this analysis. Most relevant among these differences is the fact that Hispanic background is offered as a separate question from race, and the two are not separated in the data. This means that depending on how people identified themselves to their programs, they could show up under one of the race categories and as Hispanic. Consequently, it is possible that teachers-in-training may be double-counted in some cases. Additionally, for some programs, racial/ethnic counts do not add up to the reported total number of enrollees, suggesting cases where some data/observations appear to be missing. Consequently, data used for this portion of the analysis should be read with caution.

### **Teacher staffing data**

Unlike the rest of the data in this report, teacher data is available from DPI at the individual level. Since 2017, DPI has published a "Public All-Staff Report" that is available for download at <a href="https://publicstaffreports.dpi.wi.gov/PubStaffReport/Public/PublicReport/AllStaffReport">https://publicstaffreports.dpi.wi.gov/PubStaffReport/Public/PublicReport/AllStaffReport</a>. Previous to 2017, the same data were available at <a href="https://dpi.wi.gov/cst/data-collections/staff/published-data">https://dpi.wi.gov/cst/data-collections/staff/published-data</a>. These files contain information on teacher age, gender, race/ethnicity, school, district, salary, fringe benefits, among many other data elements.

For the purposes of this analysis, we define "teacher" as a school staff member classified by DPI as a teacher or position with teaching-related responsibilities with whom students are likely to have regular direct contact. DPI staffing data include a two-digit position code for the role that a staff member plays. Based on discussions with DPI officials about which positions would be appropriate to consider for the purposes of this analysis, we include the following three types of school staff members encompassing 11 position codes:

- 1. School Leaders: codes 51 (principal) and 52 (assistant principal)
- 2. Pupil Services: codes 50 (school social worker), 54 (school counselor), and 55 (school psychologist)

<sup>&</sup>lt;sup>2</sup> Wisconsin Department of Public Instruction. About the Data – Postsecondary Enrollment. <a href="https://dpi.wi.gov/wisedash/about-data/postsecondary">https://dpi.wi.gov/wisedash/about-data/postsecondary</a>. Accessed April 9, 2020.

3. Teacher: codes 19 (teacher in charge), 53 (teacher), 84 (speech/language pathologist), 86 (librarian), 87 (library media specialist), and 88 (instructional technology integrator)

All codes besides the 11 mentioned were excluded from this study. The vast majority of those coded as teacher were position code 53.

Another important variable included in the DPI staffing data is full-time equivalence (FTE). One school staff member might have many positions listed in the file, but the FTE associated with their various positions might add up to approximately 1. In order to capture a measure of staff members' actual time spent performing teaching functions that put them in direct contact with students, this analysis counts teachers in terms of FTE rather than as individuals or headcount (this is why staffing counts can be expressed with one or more decimal places). As such, if a teacher has multiple position codes, including some that are in the list of 11 and some that are not, the ones that are not have been dropped from the observations used in this analysis.

For example, imagine an individual that serves as a teacher (included in our analysis) at 0.8 FTE who also serves as a bus driver (not included) at 0.2 FTE. For the purposes of this report, this individual would count as 0.8 teachers.

#### **Cautions**

In interpreting the findings in these analyses, we caution readers to consider the following limitations.

Our analysis uses the school district as the lens for examining the relationship between the teacher workforce and students throughout the state. As a result, especially for larger districts, there is school-to-school variation in racial/ethnic representation of teachers and students that is unaccounted for in this analysis. Students and teachers of color are not distributed equally across all schools in any given district.

It is important to remember the principal basis for structuring our study as we have is the body of research that points to links between gains in student outcomes and having access within their school environment to teachers who match their own racial/ethnic background. Although this analysis takes place at the district level, observers such as district leaders and policymakers would be advised to consider how teachers are distributed *among* their schools and between grade levels – such that the students they serve are having the experience of being instructed by at least one teacher whose race/ethnicity matches their own.

In addition, our conclusion merges our analyses of the distribution of students of color at selected educational milestones. This structure helps illustrate what might be driving the wide gap between how various racial groups are represented among students and teachers in Wisconsin. It is worth keeping in mind, however, that this is not a cohort analysis that follows the movement of discreet groups of people from K-12 education through teacher licensure. Rather, it is a snapshot in time of the demographic breakdown within each group for each year of the analysis.

### APPENDIX II:

### REFERENCES ON STUDENT BENEFITS ASSOCIATED WITH DIVERSE TEACHER WORKFORCE

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### **ENDNOTES**

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- <sup>10</sup> Table 203.50 Enrollment and percentage distribution of enrollment in public elementary and secondary schools, by race/ethnicity and region: Selected years, fall 1995 through fall 2028. Digest of Education Statistics. <a href="https://nces.ed.gov/programs/digest/d18/tables/dt18">https://nces.ed.gov/programs/digest/d18/tables/dt18</a> 203.50.asp?current=yes; Projecting public school enrollment in Wisconsin, 2019. Applied Population Laboratory. University of Wisconsin-Madison Department of Community and Environmental Sociology.
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<u>20 summary mpcp wpcp rpcp snsp.pdf</u>. Public school enrollment data can be found at <a href="https://wisedash.dpi.wi.gov/Dashboard/portalHome.jsp">https://wisedash.dpi.wi.gov/Dashboard/portalHome.jsp</a>. Historical information about parental choice programs can be found at

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- <sup>20</sup> Same as endnote 19
- <sup>21</sup> The Condition of Education 2019 (2010) National Center for Education Statistics. https://nces.ed.gov/pubs2019/2019144.pdf; Table 1. Public high school 4-year adjusted cohort graduation rate (ACGR), by race/ethnicity and selected demographic characteristics for the United States, the 50 states, and the District of Columbia: School year 2016–17. National Center for Education Statistics https://nces.ed.gov/ccd/tables/ACGR\_RE\_and\_characteristics\_2016-17.asp
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