



Budget Cuts and Teacher Shortages: With Fewer Resources, Schools Struggle to Find Educators

Wisconsin students attend schools that invest significantly less resources per student than they did a decade ago. School spending in Wisconsin declined in recent years, in contrast to the national trend of increasing resources for schools. Most school spending consists of employee salaries and benefits, and Wisconsin school districts have reduced both.

In the wake of the spending cuts, many Wisconsin school districts are facing difficulties hiring enough qualified teachers. The shortages are especially severe in areas related to math, science, and technology, and in the northern part of the state. School districts that face teacher shortages have needed to hire teachers with fewer skills or less experience than desired, ask educators to teach outside their area of expertise, use long-term substitute teachers to teach classes, and require teachers already at the school to take on additional duties. These methods of addressing the effects of the teacher shortage have the potential to make it more difficult for students to get a high-quality education.

Wisconsin school districts also face an acute shortfall of teachers of color, contributing to the significant opportunity gap facing students of color in the state. A racially diverse teacher workforce is associated with higher academic achievement by students of color. Yet in Wisconsin, 29% students are of color, compared to just five percent of teachers. In some large school districts in the state, as few as two percent of the teachers are of color. For Wisconsin's teaching workforce to have the same racial composition as student enrollment, school districts in the state would need to hire more than 11,000 teachers of color.

Public schools have long been an engine of our state's economic growth. Wisconsin depends on a well-educated workforce, shaped by excellent public schools, to lay the foundation of our prosperity. To ensure Wisconsin is competitive in the future, our schools must have the resources to offer all students a high-quality education. Teacher shortages and a teacher workforce that lacks racial diversity make that more difficult.

WISCONSIN'S DECLINE IN SCHOOL SPENDING CONTRASTS WITH NATIONAL TREND

Wisconsin public schools spent less per student in 2014 than they did in 2005, even as school spending per student increased nationally. Wisconsin lawmakers have made steep cuts in state support for school districts and have restricted the amount of money districts can raise at the local level.

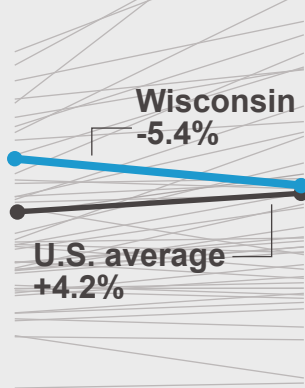
Wisconsin schools spent \$11,253 per student in 2014, down 5.4% from 2005. Nationally, spending per student *increased* 4.2% over this period. Dollar amounts are adjusted for inflation.

Wisconsin schools still spend slightly more per student than the national average, but the difference has narrowed dramatically. In 2005, Wisconsin schools spent 12.0% more per student than the national average, ranking 13th highest among the states. By 2014, Wisconsin's ranking had dropped to 21st, and Wisconsin schools spent just 1.6% above the national average. Only three states had larger declines in percentage terms in school spending per student than Wisconsin did over this period.

School Spending in Wisconsin Declined, as National Average Increased

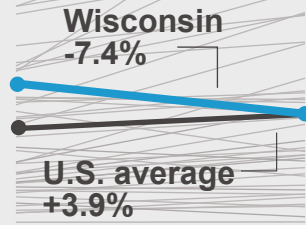
Wisconsin public K-12 schools spent less on each student in fiscal year 2014 than they did in 2005, even as school spending per student increased nationally. Amounts are presented in 2016 dollars.

Total school spending in each state, per student



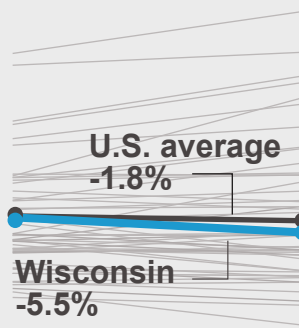
2005 Rank: #13
2014 Rank: #21

School salaries and benefits combined in each state, per student



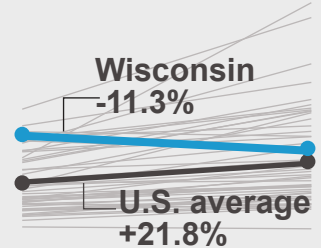
2005 Rank: #13
2014 Rank: #23

School salaries in each state, per student



2005 Rank: #19
2014 Rank: #23

School benefit costs in each state, per student



2005 Rank: #4
2014 Rank: #20

Source: U.S. Census Bureau

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School spending on salaries has fallen faster than the national average

Most of the money spent by public schools goes to pay the salaries of teachers and other people who help educate students and keep schools running, such as social workers, teacher aides, and janitors. Wisconsin schools spent \$6,241 on salaries per student in 2014, down 5.5% from 2005. Nationally, spending on salaries per student fell 1.8% over this period.

Wisconsin schools spend less per student on salaries than the national average. In 2005, Wisconsin schools spent 0.5% less per student on salaries than the national average, ranking 19th among the states. In 2014, Wisconsin's ranking had dropped to 23rd, and Wisconsin schools spent 4.3% less per student on salaries than the national average. Only ten states had larger percentage declines than Wisconsin in school spending on salaries per student over this period.

Biggest decline of any state in spending on benefits

As with salaries, spending by Wisconsin schools on employee benefits like health insurance premiums and retirement benefits has decreased. In Wisconsin, about \$1 out of every \$4 of school spending in 2014 was for employee benefits.

Wisconsin schools spent \$2,834 on employee benefits per student in 2014, down 11.3% from 2005. Wisconsin had the largest decline of any state in school spending on benefits over this period. Nationally, spending on benefits per student increased by 21.8% over this period.

Wisconsin schools still spend more per student on benefits than the national average. In 2005, Wisconsin schools spent 53.3% more per student on benefits than the national average, ranking 4th among the states. In 2014, Wisconsin's ranking had dropped to 20th, and Wisconsin schools spent 11.6% more per student on benefits than the national average.

FACED WITH TEACHER SHORTAGES, DISTRICTS LOWER STANDARDS

In the aftermath of cuts to teacher salaries and benefits, school districts in Wisconsin have struggled to find teachers to fill vacancies, particularly in the areas of math, science, and technology.

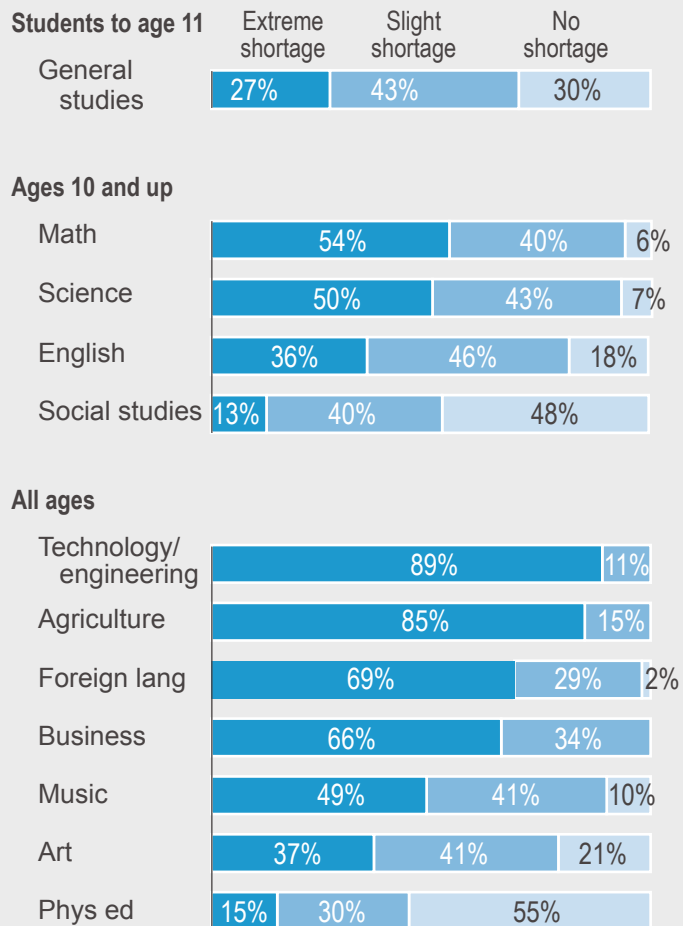
A statewide survey conducted by the Wisconsin Department of Public Instruction asked school districts whether they had vacancies in various subject areas and whether they were able to attract applicant pools with sufficient numbers of well-qualified applicants for those vacancies. The survey shows that most districts did not hire in any particular subject area in 2015-16, but those that did faced difficulty hiring teachers, and some districts faced extreme teacher shortages.

The survey defined "extreme shortage" to mean that a school district received few applicants for the job opening and few, if any, high-quality candidates. The survey defined "slight shortage" to mean that a district either had many applicants but few high-quality candidates, or few applicants but the applicants tended to be of high quality. "No shortage" means that the district had a normal supply of applicants, with many qualified applicants.

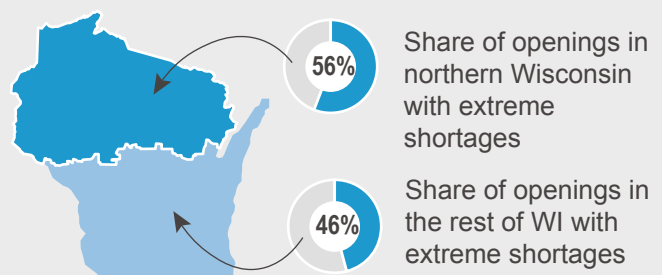
School districts found it less difficult to hire general studies teachers for students up to age 11 than teachers for more specialized subjects. Twenty-seven percent of districts with vacancies in the 2015-16 school year found an extreme shortage of teachers for general students for students up to age 11, another 43% experienced slight shortages, and about a third found no

Wisconsin School Districts Struggle to Fill Vacancies, Especially in Math and Science

The degree to which Wisconsin school districts with teacher vacancies in the 2015-16 school year experienced shortages in the applicant pool. Districts that did not respond are excluded.



Shortage most severe in Northern Wisconsin



Source: Analysis of figures from DPI's Wisconsin Educator Staffing Data School District Survey, 2015-16. Figures exclude hiring in categories that overlapped with others and some categories in which very few districts had openings. WISCONSIN BUDGET PROJECT

shortage.

Of the main subjects, schools had the most difficulty finding teachers to teach math and science. Fifty-four percent of school districts with math teacher vacancies reported an “extreme shortage” in hiring a teacher, as well as half of school districts that hired science teachers. Only a very small share of school districts — less than 7% of districts with vacancies — reported no shortage in hiring math and science teachers. Shortages are less severe for districts seeking to hire staff to teach English or social studies. (Figures describing the shortage of math and science teachers are for teachers of students ages 10 and older; students younger than 10 are more likely to have a general classroom teacher providing instruction in each of these areas, rather than a separate teacher.)

School districts also face teacher shortages when hiring for secondary subjects. More than half of school districts hiring staff to teach technology/engineering, agriculture, foreign languages, and business faced extreme teacher shortages. Shortages were less severe for districts seeking to hire teachers for music, art, or physical education.

The teacher shortages were most severe in northern Wisconsin. School districts in Cooperative Educational Service Agencies (CESAs) 8, 9, 10, 11, and 12 — an area that stretches across the top part of the state from just north of Green Bay to just south of Eau Claire — faced extreme shortages in 56% of vacancies analyzed, compared to 46% of openings with extreme shortages in the remainder of the state. This analysis includes 1,153 job openings for teachers with licensure for early childhood-middle childhood, math, science, English, social studies, technology/engineering, agriculture, foreign languages, business, music, art and physical education.

Most school districts were able to successfully hire for open positions, but many districts indicated they lowered standards to be able to hire an educator. School districts used a variety of ways to address the teacher shortages they faced, with the most-used strategies including:

- Lowering standards. In hiring for about one out of five vacancies, districts hired a teacher below the desired standard of experience or quality;
- Employing a teacher on an emergency permit or licensure, meaning that the teacher was teaching outside his or her area of expertise;
- Offering financial incentives, such as a signing bonus or a higher salary, to candidates;
- Filling a vacancy with a substitute teacher; and
- Giving another teacher an overload assignment.

Cancelling classes, eliminating or reducing programs, and increasing class sizes were among the strategies that school districts were least likely to use to address teacher shortages.

Some school districts added their own comments to the teacher shortage survey, with several respondents noting their concerns that educators in their districts are being hired by better-paying districts, as well as highlighting the overall difficulty of finding well-qualified candidates. Comments on the survey included:

- “As a small school...we are committed to offering a high-quality, well-rounded education but are constantly concerned with our educators being hired away by the larger districts that surround us.”
- “Staff member went to urban district closer to home, with a more competitive compensation package. We posted [the job] and no applicants.”
- “We could not afford to pay the individual we hired the salary previously earned but due to this person’s need to teach in this area, they agreed to a much lower salary. The individual most likely will be seeking a more competitively paying district.”
- “We had to offer our only math teacher an increase in salary to retain her for this year. This was a \$10,000 expense we did not budget for nor anticipate.”

- “Again, we have had issues with quantity and quality for virtually every position posted this year and last.”
- “We had a teacher leave in August. The pool of candidates was small and very shallow in terms of their experience and skills set.”
- “The prior year we had only one average candidate for our Spanish position. For our science position we only had two candidates. One was very low quality. For both positions we had to pay higher than we normally would have pre Act 10. Again both negatively affected our budget.”

There are several factors that likely underlie the difficulty that Wisconsin school districts are having finding qualified teachers, some of which are part of national trends and others of which are specific to Wisconsin. The rising cost of higher education and the corresponding student loan debt that many students carry makes relatively low-paid professions like teaching, less attractive to college graduates who seek out higher-paying careers. The wider array of jobs offered by an improving economy, and the decline in salaries of school employees, makes it harder for school districts to attract new candidates to the teaching profession.

Another factor that may be driving Wisconsin teachers away from the profession are the changes included in 2011 Wisconsin Act 10, which limited collective bargaining rights for teachers and other public employees and reduced take-home pay. Some leaders in Wisconsin’s education system say that the rhetoric used by the backers of Act 10 has devalued teachers, making it less likely students will consider the profession and more likely that current teachers will find other professions. The dean of Marquette University’s College of Education said that in the Act 10 debate, teachers were unfairly characterized as “greedy, lazy, ineffectual, dispassionate, and lacking in intelligence.” The dean of Cardinal Stritch University’s College of Education and Leadership said, “Act 10 caused the conversation, and the conversation went in a negative direction and it just kept going.”¹

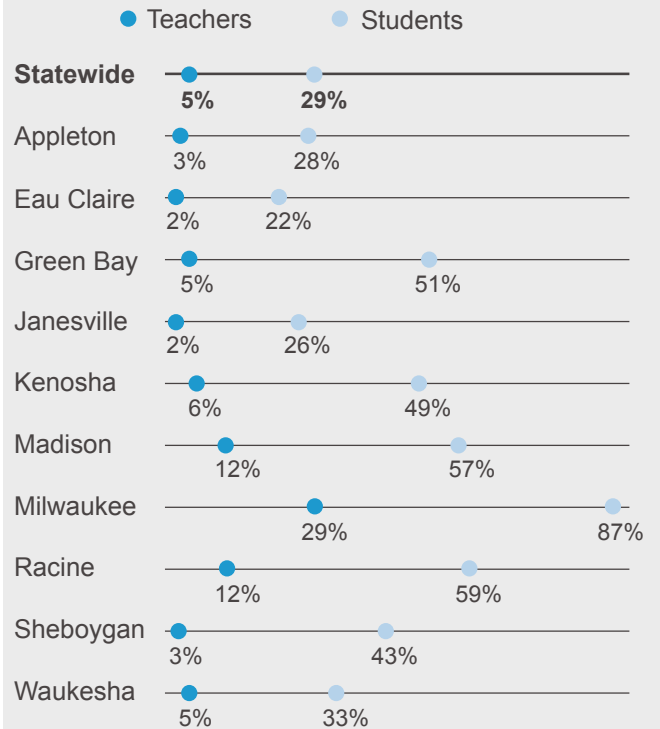
A SHORTFALL OF TEACHERS OF COLOR

The teacher workforce in Wisconsin is far less racially diverse than student enrollment, a discrepancy that will likely make it harder for students of color to reach their full academic potential.

Having a racially diverse teacher workforce is associated with higher academic achievement for students of color. For example, research has shown that African American and Hispanic students make bigger gains in test scores and are more likely to graduate from high school when they are taught by teachers racially and ethnically similar to themselves. Students of color are also more likely to be placed in gifted classes, less likely to be placed in special education classes, and less likely to be suspended or expelled if they have racially or ethnically similar

Teacher Workforce is Less Diverse than Student Enrollment

Share of teacher workforce and student enrollment that was of color in the 2015-16 school year statewide, and in the largest school districts. Individuals who are African American, Hispanic, Asian, Native American, Pacific Islander, or two or more races are considered to be of color.



Source: Analysis of figures from Wisconsin Department of Public Instruction WISCONSIN BUDGET PROJECT

¹ “Schools Face Tougher Task in Finding Teachers,” Milwaukee Journal Sentinel, December 21, 2016.

teachers.² And the benefits for students of a diverse teacher workforce aren't limited to the boundaries of the school buildings. For example, increased African American representation among teachers is linked with lower teen pregnancy rates for African American students in that district.³

The small number of teachers of color in Wisconsin means that too many students do not receive the benefits of being taught by a diverse cadre of teachers. Wisconsin school districts have few African American, Hispanic, Asian, and Native American teachers, even though students of those races and ethnicities make up a sizable share of the student population. In the 2015-16 school year:

- 95% of public school full-time equivalent (FTE) teachers in Wisconsin were white, compared to 71% of students;
- 1.8% of teachers were African American, compared to 9.4% of students;
- 1.7% of teachers were Hispanic, compared to 11.2% of students;
- 0.8% of teachers were Asian, compared to 3.8% of students; and
- 0.3% of teachers were Native American, compared to 1.2% of students.

One way of measuring how closely Wisconsin's teacher workforce reflects the racial and ethnic makeup of the student body is to identify the number of students of each race per teacher of that same race. Statewide, there were 11 white students for every white teacher in Wisconsin in the 2015-16 school year. In comparison, there were 79 African American students for every African American teacher, 101 Hispanic students for each Hispanic teacher, 73 Asian students for every Asian teacher, and 64 Native American students for every Native American teacher.

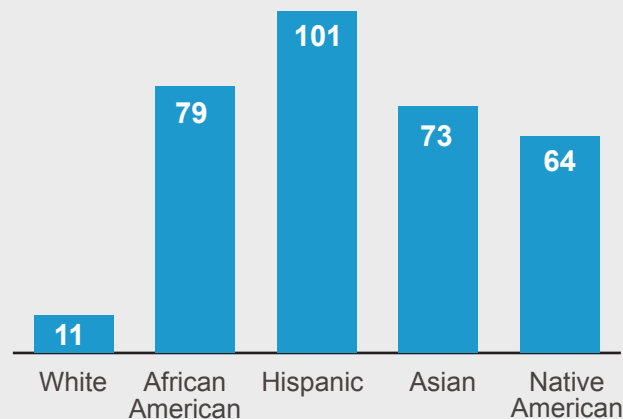
If the teacher workforce in Wisconsin mirrored the racial composition of student enrollment, Wisconsin public schools would employ far more teachers of color than they currently do. Wisconsin public schools would need to hire an additional 4,400 African American teacher FTEs, 5,400 Hispanic teachers, 1,700 Asian teachers, and 500 Native American teachers in order to have a teacher workforce reflective of student diversity. The appendix includes a table that shows the shortfall in teachers of color for each of the ten largest school districts in Wisconsin.

The mismatch between the teacher workforce and student enrollment means that 32,000 students are attending districts in which there are no teachers of that student's race. In 2015-16:

- 8,400 African American students, or 10.2% all African American students in public schools, attended school in districts that did not employ any African American teachers;
- 15,200 Hispanic students, or 15.6% of all Hispanic students, attended districts with no Hispanic teachers;

Teacher Workforce Doesn't Reflect Racial Diversity of Students

Number of Wisconsin public school students in 2015-16 by race, per teacher of that same race. For example, there are 11 white students for every white teacher in Wisconsin, compared to 101 Hispanic students for each Hispanic teacher.



Source: Analysis of figures from Wisconsin Department of Public Instruction. Includes students and teachers in charter schools. WISCONSIN BUDGET PROJECT

² Albert Shanker Institute, "The State of Teacher Diversity in American Education," September 2015.

³ Danielle Atkins and Vicki Wilkins, "Going Beyond Reading, Writing, and Arithmetic: The Effects of Teacher Representation on Teen Pregnancy Rates," *Journal of Public Administration Research and Theory*, September 2013.

- 5,000 Asian students, or 15.3% of all Asian students, attended districts that had no Asian teachers; and
- 3,700 Native American students, or 36.0% of all Native American students attended districts that had no Native American teachers.

None of the largest school districts in Wisconsin have teacher workforces that come close to approximating the student enrollment makeup, but some districts are closer than others. Milwaukee had the highest share of its workforce made up of teachers of color — 29% — but it also has the highest share of students that are not white, at 87%. Madison and Racine are the school districts with the next most racially-diverse teacher workforces, both with 12% of their teacher workforce made up of teachers of color.

Among the ten largest school districts, Eau Claire and Janesville have the least diverse teacher workforces. In each of those districts, non-white teachers make up just 2% of the total, while students of color make up about a quarter of total enrollment. The appendix includes a comparison of the racial makeup of teacher workforce compared to student enrollment for the ten largest school districts in Wisconsin and for the state as a whole.

CHANGES AT STATE LEVEL NEEDED TO HELP SCHOOLS ADDRESS CHALLENGES

Wisconsin’s investment in K-12 education — which is critical for communities to thrive and the state economy to offer broad opportunity — has declined in recent years as state lawmakers have made sharp cuts in state funding and blocked school districts from raising revenues at the local level to make up the difference.

State lawmakers made very large budget cuts to public schools in 2011 and since then have restored only a fraction of the education funding that was cut. Instead of working to turn back cuts to Wisconsin’s public schools, lawmakers have instead focused on passing tax cuts, especially those that reduce taxes for people with the very highest incomes. Since 2011, state lawmakers passed tax cuts that will reduce tax revenue by more than \$4.7 billion over six years, draining revenue that could be used to help Wisconsin’s public schools educate the next generation of workers.

In the aftermath of significant budget cuts, Wisconsin schools are struggling to hire well-qualified educators to teach students. Faced with a shortage of well-qualified candidates, school districts have lowered standards to fill vacancies, turning to candidates with fewer skills or less experience than desired. The problem with this approach is that teacher quality is one of the most important school-based determinants of success, and hiring teachers of lower quality affects student achievement. According to the Bill & Melinda Gates Foundation:

“The contribution of teachers to student learning and outcomes is widely recognized. A teacher’s effectiveness has more impact on student learning than any other factor under the control of school systems, including class size, school size, and the quality of after-school programs. In a study of Los Angeles schools, the difference between the performance of a student assigned to a top-quartile teacher rather than a bottom-quartile teacher averaged 10 percentile points on a standardized math test.”⁴

With school districts already struggling to find candidates to fill teaching positions, it’s more difficult for school districts to be strategic in how they build a teacher workforce that best serves the needs of students of all races. Many factors contribute to the lack of racial balance in Wisconsin’s teacher workforce, but it’s likely that the overall teacher shortage is hurting, rather than helping districts hire teacher workforces that come close to approaching the racial diversity of student enrollment. Especially in math and science-related fields, many school districts are finding they have little choice among qualified candidates.

The decline in support for public schools has damaging economic consequences for the state, both now and in the future. Quality elementary, middle, and high school education provides a crucial foundation that helps children to succeed in college and in the workplace. Much of the money they earn as adults is returned to the state economy through taxes, home purchases, and spending at local businesses.

Wisconsin has a long history of investing in public schools, and over time has gotten an excellent return on that investment. If lawmakers break with tradition and continue to fund Wisconsin's school system at lower levels than in the past, we may lose some of the value of that investment.

Few Teachers of Color in Wisconsin Public Schools

Share of teachers by race/ethnicity, share of students by race/ethnicity, and additional teacher FTEs (full-time equivalents) needed by race/ethnicity for the teacher workforce to reflect the racial diversity of student enrollment, assuming the workforce stays the same size. Workforce and enrollment figures are for the 2015-16 school year.

District	AFRICAN AMERICAN			HISPANIC			ASIAN			NATIVE AMERICAN		
	Teachers	Students	Teacher shortfall	Teachers	Students	Teacher shortfall	Teachers	Students	Teacher shortfall	Teachers	Students	Teacher shortfall
Statewide	1.8%	9.4%	3,910	1.7%	11.2%	5,424	0.8%	3.8%	1,701	0.3%	1.2%	616
Appleton	0.1%	4.9%	48	0.7%	9.3%	87	1.7%	11.4%	98	0.0%	0.7%	7
Eau Claire	0.3%	2.5%	16	0.3%	4.7%	32	1.2%	9.4%	60	0.4%	0.6%	1
Green Bay	0.4%	8.7%	127	2.3%	26.9%	374	1.4%	6.9%	83	0.2%	3.8%	55
Janesville	0.8%	5.3%	33	0.5%	12.1%	84	0.6%	2.0%	10	0.0%	0.3%	2
Kenosha	2.3%	15.0%	177	2.8%	27.2%	340	0.6%	1.4%	12	0.1%	0.2%	2
Madison	3.0%	17.8%	316	5.8%	20.5%	314	2.4%	8.9%	140	0.6%	0.3%	None
Milwaukee	17.4%	53.4%	1,446	8.0%	25.6%	705	2.8%	6.3%	142	0.4%	0.7%	14
Racine	3.7%	26.4%	326	6.7%	27.0%	292	0.6%	1.3%	10	0.3%	0.4%	1
Sheboygan	0.3%	4.6%	31	1.3%	18.5%	122	1.1%	16.1%	106	0.0%	0.3%	2
Waukesha	0.0%	5.6%	47	4.3%	21.0%	141	0.5%	3.8%	28	0.1%	0.3%	1

Source: Analysis of figures from the Wisconsin Department of Public Instruction. Totals reflect the racial composition of teachers and students at public school districts and charter schools.
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