



STAY IN SCHOOL:

AN UPDATE ON TEACHER WORKFORCE TRENDS
IN METRO MILWAUKEE



PUBLIC POLICY FORUM



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*An update on teacher workforce
trends in metro Milwaukee*

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INTRODUCTION

*“Attracting and retaining excellent educators is one of the most important drivers of a well-functioning education system – a system that must prepare diverse students with complex needs to participate in today’s knowledge-driven economy.”*¹ – The Learning Policy Institute, 2016

In April 2016, the Public Policy Forum published [*Help Wanted: An analysis of the teacher pipeline in metro Milwaukee*](#).² This was the third in a series of reports on public school educators in the Milwaukee area. *Help Wanted* set out to better understand how the public teacher workforce in the Greater Milwaukee region had changed in recent years, whether the region faces a shortage of teachers, and how conditions are likely to trend in the future. Overall, the report found a challenging situation characterized by a shrinking supply of new teachers to replace a steady stream of existing teachers leaving the workforce.

Since the report’s release, national teacher workforce studies, local and national media reports, and anecdotal accounts from K-12 stakeholders have continued to point to teacher shortages as an ongoing reality of the K-12 landscape. That is the case in both public and private schools, and across both Greater Milwaukee and the State of Wisconsin as a whole. While debate about this issue often focuses on its potential relationship to Wisconsin Act 10 – Wisconsin’s controversial 2011 law that restricted public employee collective bargaining – nationwide evidence of teacher shortages suggests Wisconsin’s struggles to maintain a stable teacher supply are related to a larger set of forces.

A key feature of *Help Wanted* was the use of Wisconsin Department of Public Instruction (DPI) data to analyze the pace at which teachers were moving in and out of the metro Milwaukee and Wisconsin teaching workforce, and how those teachers were distributed in terms of age and years of experience. With two additional years of data now available, this report provides an update on trends in these indicators that we hope will be useful to education leaders, policy makers, and stakeholders.

Whereas the first report spanned the 2009-10 through and 2013-14 school years, this updated analysis encompasses 2009-10 to 2015-16. We place particular emphasis on areas in which we observe considerable changes in trends over the two subsequent years. Our intent is to help inform policymakers and citizens about the dynamics of the teacher workforce in metro Milwaukee. We do acknowledge, however, that each district possesses its own distinct experiences, challenges, and successes with regard to teacher retention and recruitment.



METHODOLOGY

The methodology used for this report largely mirrors that used for *Help Wanted*. A comprehensive description can be found in the Data and Methodology section of that report. However, the following important points related to methodology particularly should be noted by readers:

- For the purposes of this analysis, metro Milwaukee encompasses the four-county Milwaukee Standard Metropolitan Statistical Area, which includes public school districts in Milwaukee, Ozaukee, Washington, and Waukesha counties.
- This analysis measures the number of teachers who left and entered the statewide teacher workforce. Teachers counted in this analysis as having left their position in any given district or the metro Milwaukee area have left the teaching profession within the State of Wisconsin. They are not teachers who left one district in the state and were employed at another Wisconsin district the following year. In other words, this analysis does not measure mobility of teachers between districts throughout the state.
- Schools that are chartered by the Milwaukee Public Schools (MPS) are counted in the aggregate figures for metro Milwaukee and are included in the district figures for MPS. Schools that are chartered by the Milwaukee Common Council and the University of Wisconsin-Milwaukee are included in the aggregate figures for metro Milwaukee, but are not included in the district breakdowns.
- In conducting this analysis, we identified numerous errors in the Wisconsin Department of Public Instruction public school staffing data specifically related to MPS for the 2015-16 school year. We worked closely with MPS officials to manually rectify the errors of which we were aware. We are not aware of whether and to what extent the DPI dataset used in this analysis contains additional errors affecting MPS or other districts.



HOW MANY TEACHERS ARE IN THE WORKFORCE?

Before examining patterns of movement into and out of the teacher workforce, it is important to look at the current count of teachers in Wisconsin and metro Milwaukee, and how it has changed over time.

Table 1 shows the number of teachers in the metro region and state relative to the number of students. Since 2009-10, the number of teachers in both the state and metro Milwaukee has declined. With 14,486 teachers in metro Milwaukee in the 2015-16 school year and 59,977 statewide, the number of teachers has fallen by 625 (4.1%) and 1,338 (2.2%), respectively.

Table 1: Number of public school students and teachers

	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	Percent Change Over Time
Teachers in Metro Milwaukee	15,111	15,072	14,426	14,385	14,411	14,488	14,486	-4.1%
Teachers in Wisconsin	61,315	60,956	59,356	59,399	59,837	59,910	59,977	-2.2%
Students in Metro Milwaukee	237,127	237,740	235,723	235,543	236,205	234,740	232,865	-1.8%
Students in Wisconsin	871,262	871,550	870,470	871,551	873,531	870,652	867,137	-0.5%

Source: Wisconsin Department of Public Instruction

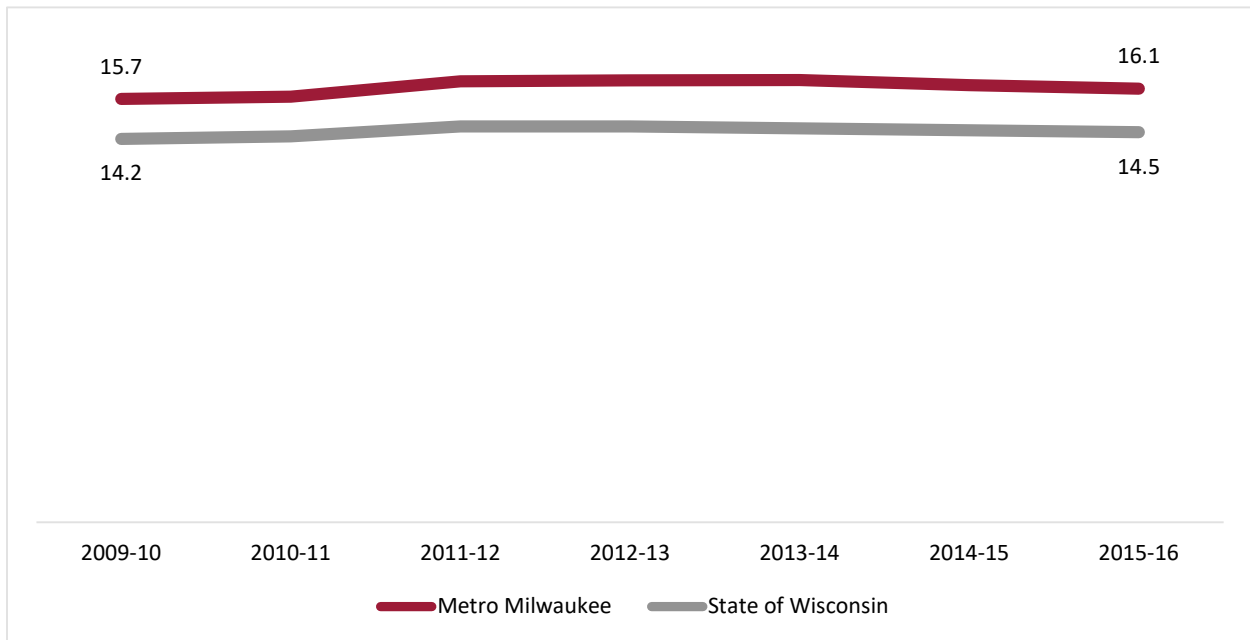
Overall, while our two additional years of data show that the number of teachers in both the metro Milwaukee and Wisconsin still is below 2009-10 levels, the **net annual change in the number of teachers appears to be stabilizing**. Statewide, the number of teachers has been growing slightly since 2011-12. Similarly, metro Milwaukee saw its teacher ranks increase slightly in 2013-14 and 2014-15 and remain almost flat in 2015-16.

When considering reductions in the teacher workforce, it is important also to consider the changes that have occurred in student enrollment. As shown above in **Table 1**, the rate of decline of teachers in the region outpaces the slight changes in student enrollment. The disparity is more pronounced at the state level, where the percentage drop in the number of teachers is more than four times the percentage decline in student enrollment. In Metro Milwaukee, the rate of decline in teacher ranks is more than twice the percentage change in student enrollment.

Nevertheless, the student-teacher ratio for the metro region is consistently higher than for the state, as shown in **Chart 1**. Both the metro region and state ratios have grown slightly since 2009-10, but the rate of growth has slowed in recent years.



Chart 1: Student-teacher ratios in region and state



Source: Wisconsin Department of Public Instruction

Bottom line: Snapshot of teacher workforce

As was the case when we first reported on teacher workforce trends as of the 2013-14 school year, schools across both Greater Milwaukee and Wisconsin have fewer teachers now than they did in 2009-10. However, the downward trends appear to be stabilizing in recent years with slight increases or flat year-over-year growth in teacher ranks in both the region and state since 2012-13.

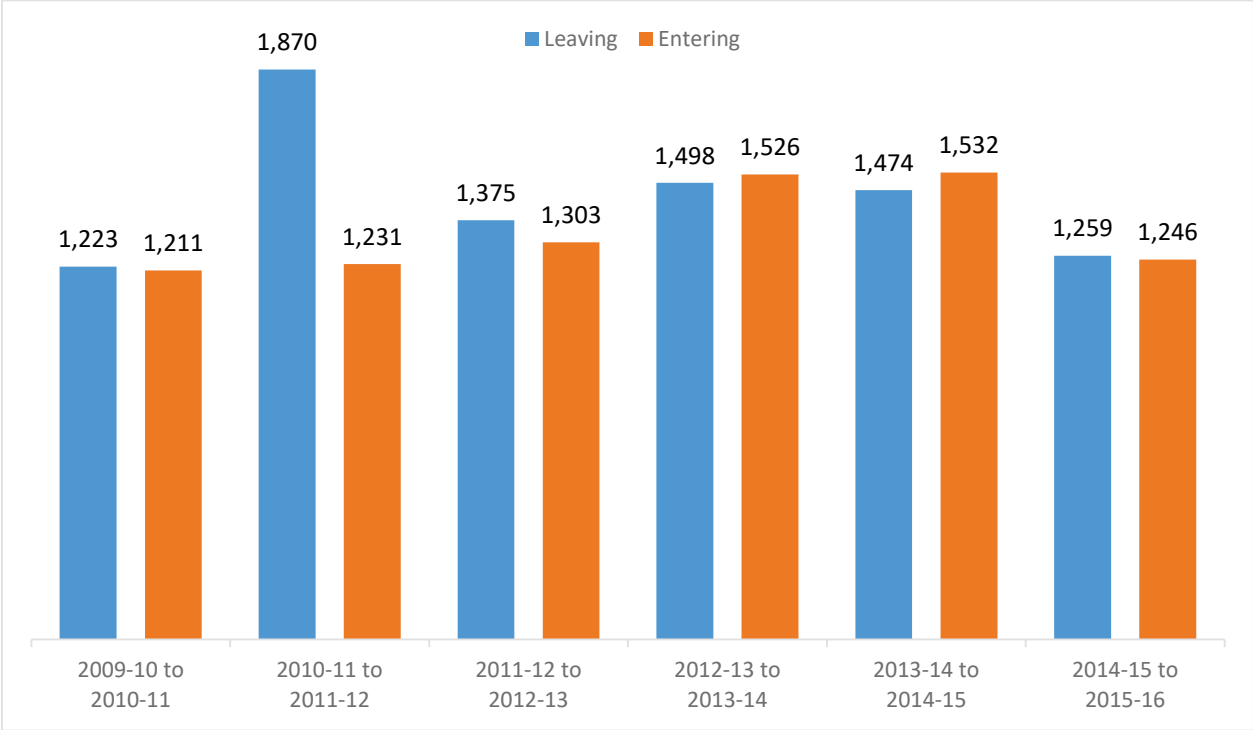


HOW MANY TEACHERS LEFT AND ENTERED THE WORKFORCE?

Having presented a year-by-year snapshot of the number of teachers both statewide and across the metro Milwaukee region, we now delve into the movement patterns that have driven those trends over time. The data we present in this section reveal how many teachers are leaving schools and classrooms and provide insight into the question of whether there are enough teachers entering the workforce to replace them.

Chart 2 summarizes the number of teachers who both left and entered the teaching workforce from one school year to the next in metro Milwaukee. We see that in recent years, the number of teachers entering versus leaving the public school teaching workforce in metro Milwaukee has been balancing out, with those entering slightly outnumbering those leaving. In the most recent year, the number of leavers (1,259) slightly exceeded the number of enterers (1,246). However, the movement of teachers both into and out of metro Milwaukee school districts decreased substantially in the 2015-16 school year. The turnover in the teacher workforce, in fact, fell to its lowest level since the year in which Act 10 was adopted.

Chart 2: Number of teachers leaving and entering workforce (metro Milwaukee)

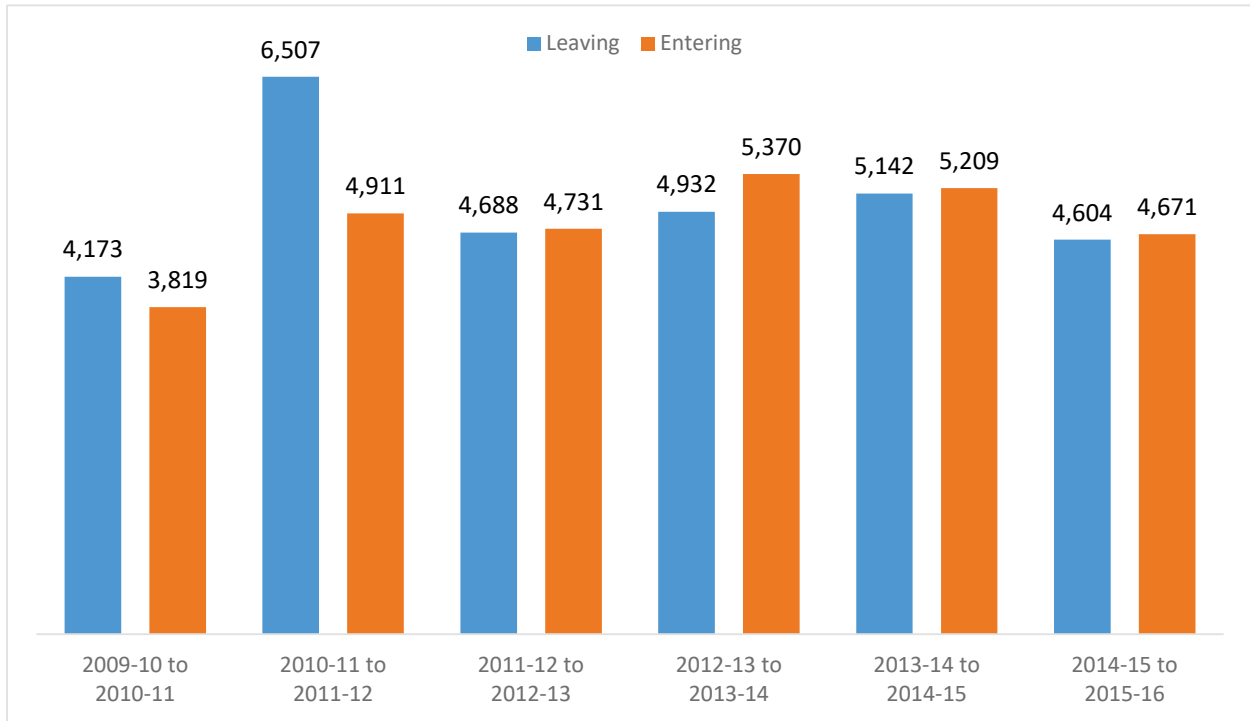


Source: Wisconsin Department of Public Instruction

Chart 3 expresses a very similar pattern when we consider the state as a whole. Following a pattern established after 2011-12, in the most recent year, we see enterers (4,671) outpacing leavers (4604). But both are at their lowest levels as of 2015-16 since before enactment of Act 10.



Chart 3: Number of teachers leaving and entering workforce (State of Wisconsin)



Source: Wisconsin Department of Public Instruction

District-by-district perspective

Table 2 and **Table 3** drill down to the district level in metro Milwaukee to illustrate how individual public school districts in the region are faring with regard to teacher retention and attraction for the last two years in which data are available. These tables also display figures for urban districts in Green Bay, Kenosha, Madison, and Racine to provide context for MPS..

Viewing these trends by district illustrates considerable variability regarding teacher turnover. Between 2014-15 and 2015-16, about half of the districts in the metro region saw an increase in teacher attrition. Similarly, about half saw a decrease in the number of entering teachers.

Districts' inability to replace teachers at roughly the pace in which they are losing them may indicate they are operating with teacher vacancies (although that would not be the case if they have consolidated classrooms or taken other steps to preclude the need for a new hire). Again, we observe varying experiences by district. Of the 50 districts in the region, half did not hire enough teachers to offset the attrition they experienced between 2013-14 and 2014-15, with Franklin (25), West Bend (22), and Elmbrook (18), leading in the number of teachers that were not replaced in that period. The following year (2014-15 to 2015-16), the number of districts that were not keeping pace with attrition increased to 30, with a different mix making up the districts with the top figures in net losses: MPS (34), Whitefish Bay (14), Kettle Moraine (13), and Elmbrook (13).



Table 2: How many teachers left the metro Milwaukee workforce between each year?

District	Between 2013-14 and 2014-15		Between 2014-15 and 2015-16	
	Number	Percent of workforce	Number	Percent of workforce
Arrowhead UHS (9-12)	5	4.1%	5	4.1%
Brown Deer	12	10.0%	14	11.2%
Cedarburg	17	9.1%	14	7.4%
Cudahy	16	8.6%	12	6.5%
Elmbrook	45	9.5%	33	7.0%
Erin (K-8)	6	24.0%	1	4.2%
Fox Point (K-8)	5	7.1%	8	10.7%
Franklin	41	15.2%	18	7.2%
Friess Lake (K-8)	2	9.5%	2	10.5%
Germantown	18	7.2%	14	5.5%
Glendale-River Hills (K-8)	7	9.9%	8	10.8%
Grafton	14	9.7%	15	10.1%
Greendale	17	9.3%	16	8.9%
Greenfield	11	5.0%	15	7.3%
Hamilton	13	4.6%	15	5.4%
Hartford J1 (K-8)	10	8.0%	8	6.5%
Hartford UHS (9-12)	8	8.8%	9	10.2%
Hartland-Lakeside (K-8)	4	5.3%	7	9.3%
Kettle Moraine	12	4.7%	27	10.2%
Kewaskum	12	9.1%	15	11.8%
Lake Country (K-8)	1	2.6%	4	10.5%
Maple Dale - Indian Hills (K-8)	2	4.9%	7	17.1%
Menomonee Falls	22	7.7%	14	5.1%
Mequon-Thiensville	32	13.7%	20	8.9%
Merton (K-8)	3	5.4%	9	16.1%
Milwaukee	481	11.0%	410	11.0%
Mukwonago	23	7.9%	15	5.2%
Muskego-Norway	27	9.2%	17	5.9%
New Berlin	28	9.5%	23	8.0%
Nicolet UHS (9-12)	6	7.7%	10	12.2%
Northern Ozaukee	2	7.4%	3	11.5%
North Lake (K-8)	5	6.8%	3	3.8%
Oak Creek-Franklin	24	6.5%	15	4.1%
Oconomowoc	30	9.6%	20	6.3%
Pewaukee	13	7.9%	8	4.7%
Port Washington-Saukville	13	7.6%	9	5.1%
Richfield (K-8)	7	22.6%	4	12.9%
Richmond (K-8)	0	0.0%	1	3.3%
Saint Francis	8	10.7%	9	12.0%
Shorewood	8	5.7%	12	8.3%
Slinger	9	5.1%	12	6.5%
South Milwaukee	16	7.7%	21	10.0%
Stone Bank (K-8)	5	17.9%	1	4.2%
Swallow (K-8)	3	7.5%	2	4.9%
Waukesha	90	10.5%	84	9.5%
Wauwatosa	46	9.1%	54	10.9%
West Allis	94	14.6%	48	7.0%
West Bend	50	11.9%	19	4.7%
Whitefish Bay	16	7.8%	34	16.8%
Whitnall	12	8.0%	16	10.1%
Metro Milwaukee	1,474	10.2%	1,259	8.7%
<i>Green Bay</i>	118	7.7%	86	5.7%
<i>Kenosha</i>	111	8.0%	130	10.2%
<i>Madison</i>	201	8.9%	206	8.7%
<i>Racine</i>	158	10.9%	90	6.4%
State of Wisconsin	5,142	8.6%	4,604	7.7%

Source: Wisconsin Department of Public Instruction



Table 3: How many teachers entered the metro Milwaukee workforce between each year?

District	Between 2013-14 and 2014-15		Between 2014-15 and 2015-16	
	Number	Percent of workforce	Number	Percent of workforce
Arrowhead UHS (9-12)	5	4.1%	3	2.5%
Brown Deer	19	15.2%	16	12.9%
Cedarburg	20	10.6%	18	9.3%
Cudahy	14	7.6%	24	12.2%
Elmbrook	27	5.8%	20	4.3%
Erin (K-8)	6	25.0%	0	0.0%
Fox Point (K-8)	7	9.3%	3	4.2%
Franklin	16	6.4%	23	8.7%
Friess Lake (K-8)	1	5.3%	0	0.0%
Germantown	14	5.5%	13	5.1%
Glendale-River Hills (K-8)	4	5.4%	3	4.2%
Grafton	14	9.5%	8	5.7%
Greendale	11	6.1%	13	7.0%
Greenfield	7	3.4%	39	16.6%
Hamilton	7	2.5%	7	2.6%
Hartford J1 (K-8)	11	8.9%	7	5.7%
Hartford UHS (9-12)	3	3.4%	3	3.5%
Hartland-Lakeside (K-8)	4	5.3%	8	10.7%
Kettle Moraine	25	9.5%	14	5.4%
Kewaskum	9	7.1%	10	8.1%
Lake Country (K-8)	1	2.6%	6	15.4%
Maple Dale - Indian Hills (K-8)	0	0.0%	2	5.1%
Menomonee Falls	13	4.7%	17	6.0%
Mequon-Thiensville	22	9.8%	23	10.1%
Merton (K-8)	1	1.8%	3	5.3%
Milwaukee	577	13.0%	376	8.6%
Mukwonago	14	4.9%	14	4.9%
Muskego-Norway	17	5.9%	10	3.4%
New Berlin	33	11.4%	22	7.8%
Nicolet UHS (9-12)	6	7.3%	4	5.1%
North Lake (K-8)	3	11.5%	3	12.0%
Northern Ozaukee	9	11.5%	1	1.4%
Oak Creek-Franklin	23	6.2%	21	5.5%
Oconomowoc	30	9.5%	25	7.9%
Pewaukee	10	5.9%	5	2.9%
Port Washington-Saukville	12	6.9%	5	2.9%
Richfield (K-8)	7	22.6%	4	13.3%
Richmond (K-8)	0	0.0%	2	6.5%
Saint Francis	11	14.7%	12	16.0%
Shorewood	9	6.3%	11	7.4%
Slinger	12	6.5%	10	5.5%
South Milwaukee	16	7.7%	13	6.3%
Stone Bank (K-8)	0	0.0%	3	11.5%
Swallow (K-8)	2	4.9%	2	4.5%
Waukesha	95	10.8%	78	8.9%
Wauwatosa	36	7.3%	46	9.4%
West Allis	151	21.9%	71	10.2%
West Bend	28	7.0%	44	10.5%
Whitefish Bay	13	6.4%	20	10.3%
Whitnall	16	10.1%	16	9.6%
Metro Milwaukee	1,532	10.6%	1,246	8.6%
<i>Green Bay</i>	119	7.8%	115	7.3%
<i>Kenosha</i>	33	2.6%	258	17.8%
<i>Madison</i>	296	12.5%	96	4.2%
<i>Racine</i>	106	7.6%	139	9.7%
State of Wisconsin	5,209	8.7%	4,671	7.8%

Source: Wisconsin Department of Public Instruction



Given the wide variation in district size across the metro region, **Table 2** and **Table 3** also show the *percentage* change in the number of teachers leaving and entering the relevant workforce from one year to the next. This perspective highlights the manner in which even small changes in numbers of teachers can significantly hamper a district's efforts to maintain a stable teaching staff.

In **Table 2** (leavers), we see that the number of teachers who left MPS over the two most recent years dwarf the figures of any other district, but those losses represented only 11% of the district's overall workforce in both years. Other relatively large urban districts in the region – such as Waukesha and West Allis – had relatively high numbers of departures, but those losses counted for similarly modest shares of their teacher workforce.

Conversely, the potential instability caused by relatively few teacher departures in smaller suburban and rural districts becomes apparent when viewed as a percentage of those districts' overall workforce. The rural districts of Erin, Merton, Richfield, and Stone Bank – as well as suburban districts of Maple Dale-Indian Hills and Whitefish Bay – all experienced teacher departures of between 17% and 24% of their total workforce.

Impact of Milwaukee Public Schools on the metro Milwaukee teacher workforce

When we consider teacher workforce trends in the metro Milwaukee region, it is important to bear in mind that the foremost driver of those trends – by virtue of its size – is MPS. In 2015-16, MPS accounted for about 30% of the public school teachers in the region and 7% of those in the state. The number of MPS teachers who left the workforce annually between 2009-10 and 2015-16 ranged from a peak of 682 after the 2012-13 school year (when union contracts in place before Act 10 expired) and a low of 410 after the 2014-15 school year. In the same timeframe, the annual number of teachers who entered MPS' teacher workforce ranged between 280 and 617. On average since 2009-10, the number of MPS leavers after a given year has represented about 36% of all leavers in the metro Milwaukee region and 10% of all leavers statewide.

Using data that appear in **Table 2** and **Table 3**, we can discern the influence of MPS workforce trends on the metro region. If we remove MPS from the metro region totals, we see that between 2013-14 and 2014-15, instead of a net gain of 58 teachers, the region experienced a net loss of 38. The reverse occurred between 2014-15 and 2015-16, when the region excluding MPS saw a net increase of 21 teachers instead of a net loss of 13 when MPS was included. Although the differences between the two scenarios are not dramatic, they are notable in that MPS can skew the regional (and sometimes state) trends both in magnitude and direction.

In the most recent year, MPS lost 410 teachers, the lowest teacher attrition level since before 2009-10 and the second consecutive year of decline in teachers leaving. Although the downward trend is promising, MPS officials state that the vast majority of these departures (all but 73) are resignations, as opposed to retirements. That indicates MPS still is experiencing a serious teacher retention challenge.

Outside of MPS, districts that saw notable shifts in teacher workforce trends involve a variety of different types of communities. The cities of West Allis and West Bend lost 48 and 19 teachers in 2015-16, respectively, but these levels are far lower than the losses they realized in the previous year (94 and 50). West Allis more than made up for the loss with an influx of 71 teachers in 2015-



16, following a one-year increase of 151 teachers in 2014-15. Similarly, West Bend gained 44 teachers in 2015-16, more than double the number of teachers it lost.

The relatively affluent village of Whitefish Bay, meanwhile, experienced a 34-teacher loss between 2014-15 and 2015-16 (the highest loss of any metro Milwaukee district in that period). The district only gained 20 new teachers in the same period, illustrating how even affluent districts are experiencing teacher stability and supply challenges.

Like MPS, Green Bay, Madison, and Racine are seeing attrition patterns level out or begin to decrease. At the same time, Kenosha lost considerably more teachers in the most recent year than in the previous one. Madison also saw a concerning shift in its trends with a large drop-off in number of entering teachers in the most recent year (296 to 96), but the other three comparison urban districts are seeing either significant increases or relative stability.

Bottom Line: Amount of teachers leaving and entering the workforce

An additional two years of data on teacher movement trends in Wisconsin shows mixed results. On the one hand, in the aggregate, the latest year of data shows the pace of teacher attrition is below pre-Act 10 levels in both Wisconsin and metro Milwaukee. Moreover, in recent years, the region generally has been able to attract sufficient numbers of entering teachers to keep pace with those who leave from year to year.

Assessing the overall teacher landscape at the district level, on the other hand, is less conclusive. The metro region is roughly split between the number of districts that have seen teacher attrition or attraction rise versus fall in the last two years for which data are available. Similarly, more than half of the region's school districts hired fewer teachers than those who had left (though we cannot determine whether that is indicative of teacher "shortages" versus other factors that simply have allowed such districts to proceed with fewer teachers).

As discussed, MPS estimates about 80% of its departures after 2014-15 were resignations of early- or mid-career teachers, not retirements. Thus, it is possible that despite the overall downward trend of teacher departures in metro Milwaukee and statewide, certain districts are experiencing retention challenges, which could lead to longer-term workforce issues.

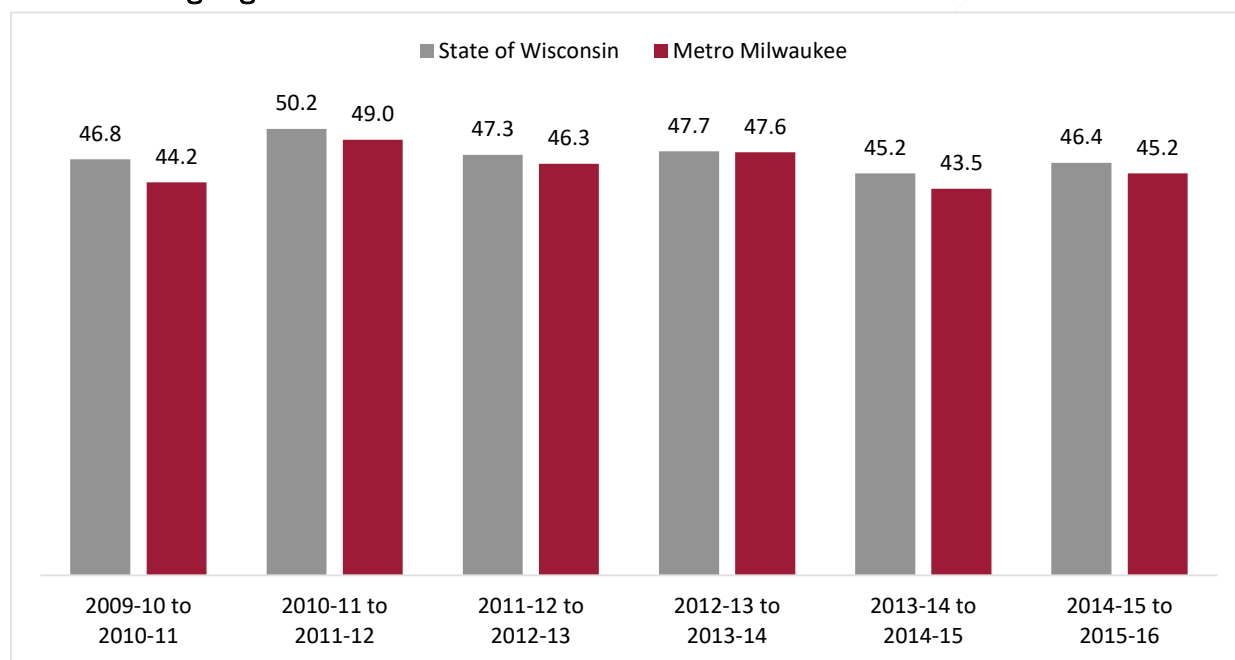


HOW OLD ARE TEACHERS WHO LEAVE AND ENTER THE WORKFORCE?

Having analyzed the number of teachers moving into and out of the teaching workforce over time, we turn now to trends in terms of the age and experience of teachers – characteristics often associated with teacher quality and student achievement.

Chart 4 summarizes the average age of teachers who *left* the teaching workforce in metro Milwaukee and the state between each school year. The average age of a teacher who left the workforce in the most recent year was 45.2 in Milwaukee and 46.4 in Wisconsin. At both the metro and state level, **the average age of leavers is down slightly compared to two years ago**. On average, teachers leaving the metro region after 2014-15 were 2.4 years younger than two years earlier, whereas the average age of leavers statewide dropped 1.3 years in that period.

Chart 4: Average age of teachers who left the workforce

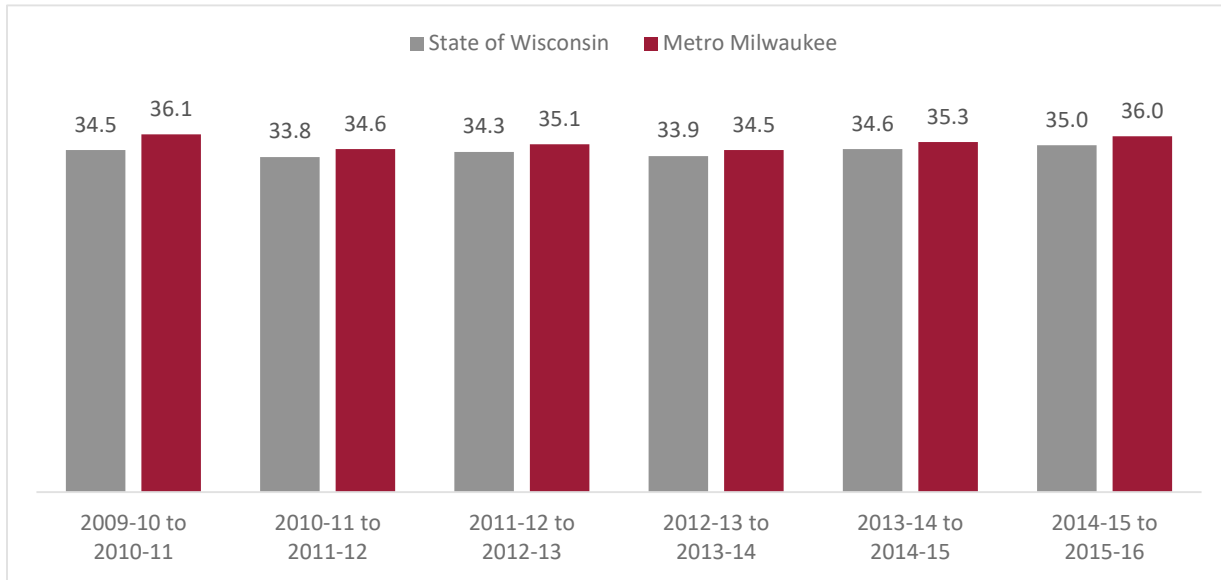


Source: Wisconsin Department of Public Instruction

Chart 5 shows the average age of teachers *entering* the teacher workforce. As might be expected, the average age of a teacher who entered the profession in 2015-16 was younger than that of leavers – 36 in Greater Milwaukee and 35 in Wisconsin. The average age of those entering has been relatively more consistent over time relative to leavers, but appears to be on a slight upswing. These entering teachers are considerably older than most recent college graduates, a pattern that could suggest that districts are hiring less experienced, but not necessarily younger replacement teachers.



Chart 5: Average age of teachers who entered the workforce



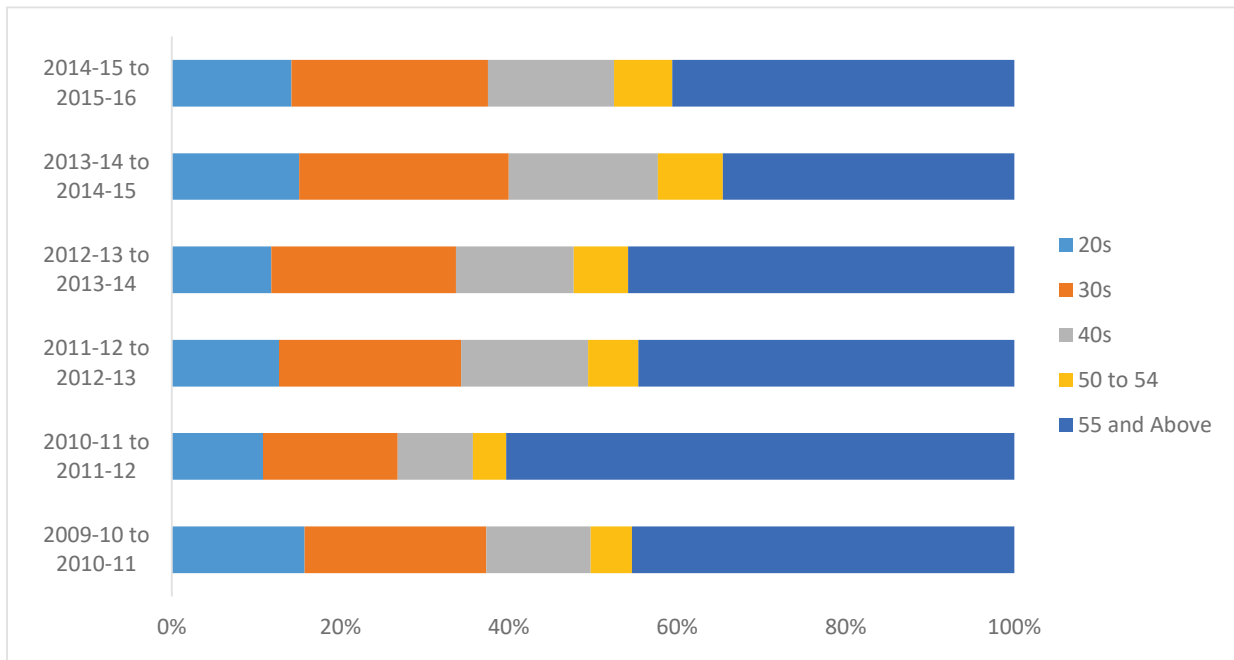
Source: Wisconsin Department of Public Instruction

Chart 6 displays the age distribution of teachers who left the workforce statewide. In the most recent year, 40.6% of those who left did so after reaching the retirement age of 55. This share has decreased since 2013-14, when 45.8% of those leaving had reached retirement age.

Almost as large as the retirement-age group of leavers is the share of early-career leavers. **In fact, those in their 20s and 30s make up 37.5% of teachers leaving the workforce.** This is the group districts will need to retain to enhance workforce stability over the long term. Overall, as we consider the two additional years of data, we see a statewide shift toward younger teachers (those under 50) leaving the profession. Almost two-thirds left before retirement age after the 2013-14 school year. But that number went down slightly the next year, when 59.4% of leavers were pre-retirement departures.



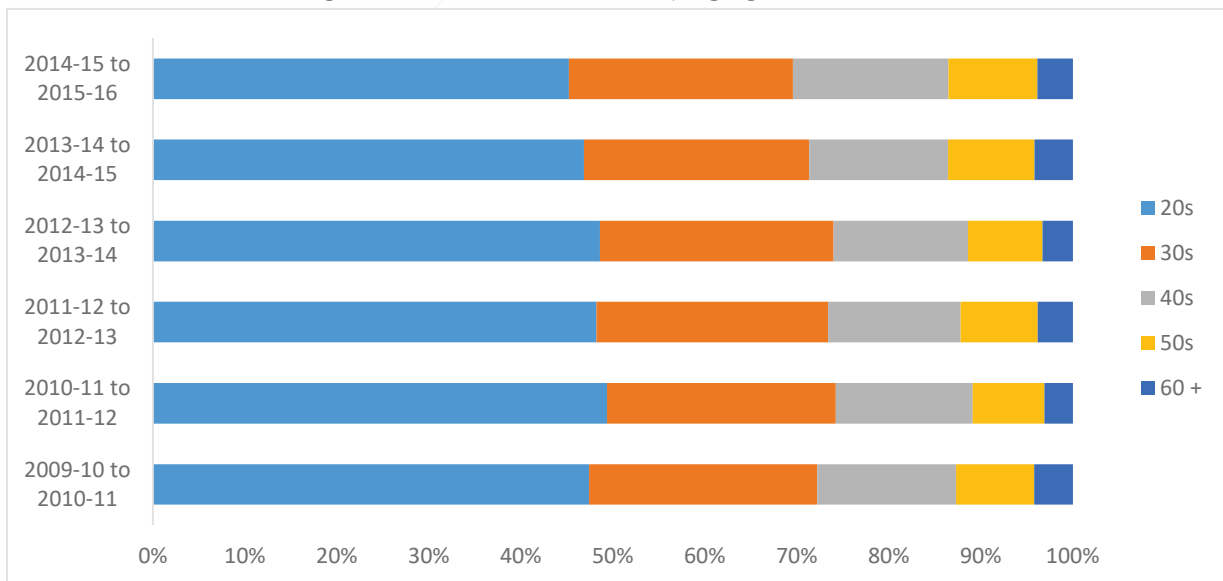
Chart 6: Teachers leaving the profession by age group (State of Wisconsin)



Source: Wisconsin Department of Public Instruction

Chart 7 displays the age distribution of Wisconsin teachers *entering* the workforce over time. About 45% of entering teachers were in their 20s in 2015-16, maintaining this as the largest single age group of enterers. Although, the relative size of this group does appear to be trending downward, the statewide share is larger than the share of those in their 20s entering the metro Milwaukee teaching ranks (as discussed below). Statewide, we do see a slight increase in entering teachers in their 40s, 50s, and 60s. These trends suggest an increase in mid-career and late-career changers becoming teachers.

Chart 7: Teachers entering the profession statewide by age group (State of Wisconsin)



Source: Wisconsin Department of Public Instruction



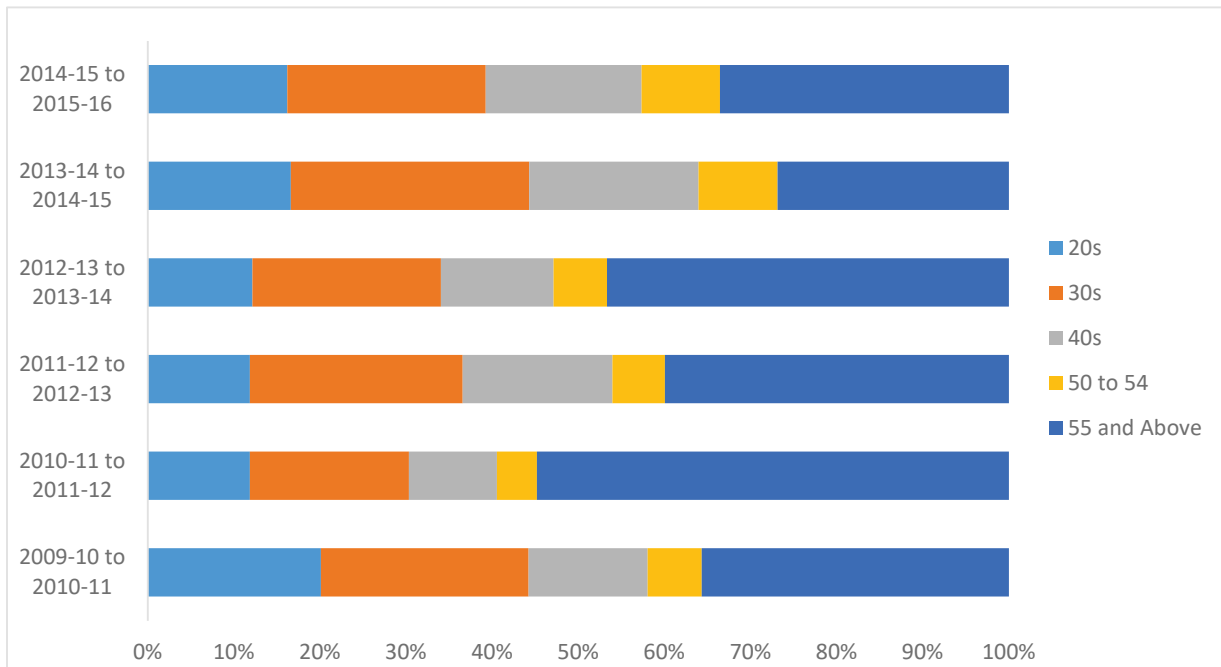
In **Chart 8**, we see a similar shift for metro Milwaukee in terms of younger teachers leaving the workforce. In the region, however, the outflow of teachers at all pre-retirement ages is considerably more pronounced than in the state as a whole and has exceeded 60% for four of the last six years. Just over two-thirds (66.5%) of those who left in 2015-16 did so before age 55 (compared to the state's 59.4%). This is down from 73.1% the previous year but higher than any year since before 2009-10. In the most recent year, those in their 20s and 30s comprised almost 40% of teachers leaving the workforce in the region, compared to 37.5% for the state as a whole. This is lower than the prior year and lower than just before Act 10 was enacted, but higher than other intervening years.

Notably, MPS is not skewing this trend toward teachers leaving in their 20s and 30s, as only about 28% of MPS leavers are in that age range. Meanwhile, the rate of MPS teachers over 55 who left after the 2014-15 school year was about 35%, only marginally exceeding the metro region average (33.5%). Almost a quarter of MPS' departing teachers were in their 40s, a considerably larger share than observed at the metro (18.1%) or state (15.0%) level.

Taken together, *the most recent* trends in the metro region indicate that those in their 20s, 30s, and 40s have been leaving in higher proportions in the years since 2010-11. However, this group comprises about the same share of the workforce as it did in 2009-10, just before adoption of Act 10. It is not yet possible to determine if the average annual upward trend in attrition among pre-retirement age teachers in recent years will continue to increase or whether the effects of Act 10 on attrition of older teachers have established a new equilibrium. In any case, teachers from these age groups are those that schools and districts need to retain for workforce stability. High attrition rates among these groups likely pose challenges to schools and districts both in terms of building teacher quality and the considerable sunk costs they incur from recruitment, induction, and professional development.



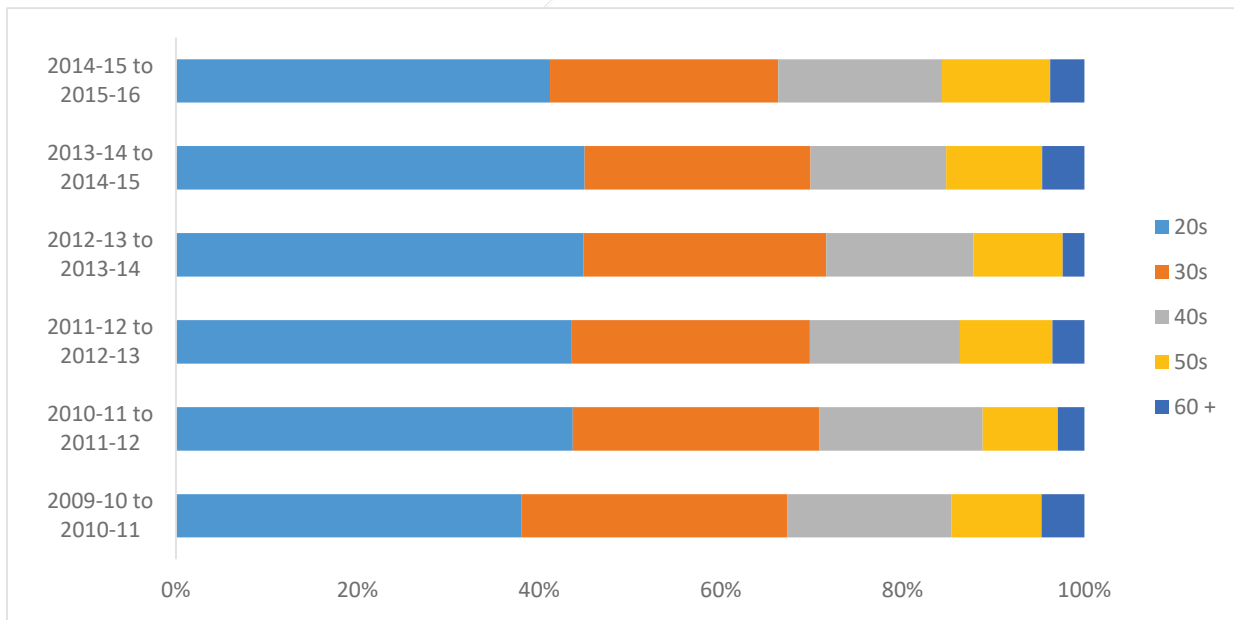
Chart 8: Teachers leaving the profession by age group (metro Milwaukee)



Source: Wisconsin Department of Public Instruction

Chart 9 shows the age distribution of metro Milwaukee teachers *entering* the workforce over time. At 41.2% of entering teachers, those in their 20s comprise the largest entering age group (compared to 45.2% statewide). Similar to the state, the region also is seeing small increases in entering teachers in their 40s, 50s, and 60s.

Chart 9: Teachers entering the profession by age group (metro Milwaukee)



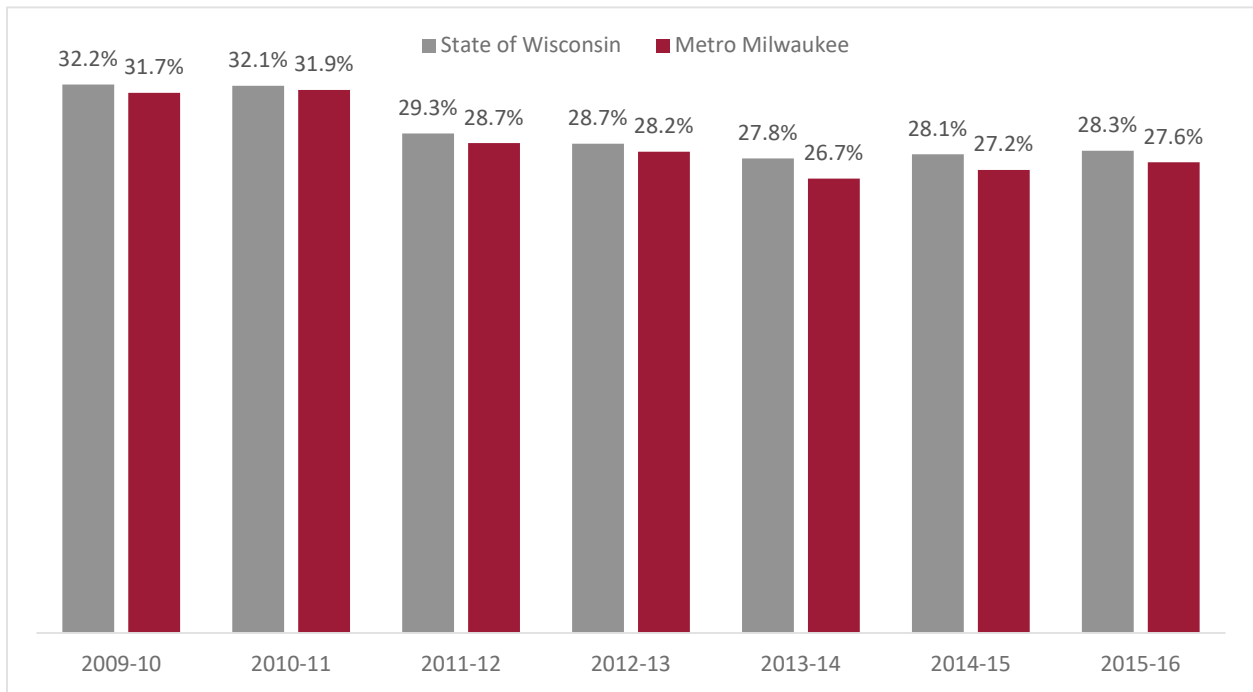
Source: Wisconsin Department of Public Instruction



The need to retain current teachers at the start and mid-range of their careers is underscored when viewed in the context of the share of teachers who are nearing retirement age in the coming years. **Chart 10** shows that 27.6% of teachers in metro Milwaukee and 28.3% across Wisconsin are 50 or older. These percentages have increased slightly in the past two years, but both are still below 2012-13 and earlier levels, **suggesting the impact of coming retirements, alone, will not be the primary driver of teacher supply challenges.** The high attrition among younger teachers and a previously documented shrinking pool of teacher preparation program enrollments suggest, however, that school and district leaders will face challenges in their efforts to fill teaching positions vacated by those approaching retirement.



Chart 10: Percentage of teaching workforce age 50 and over



Source: Wisconsin Department of Public Instruction

Bottom line: Age of teachers leaving and entering the workforce

Both in the metro region and statewide, the latest two years of data show a clear shift toward younger teachers *leaving* the profession, as opposed to older teachers retiring. These shifts are more pronounced in metro Milwaukee than across the state as a whole. Additionally, schools in the metro Milwaukee region are replacing those teachers with higher proportions of older entering teachers than is occurring on average statewide.

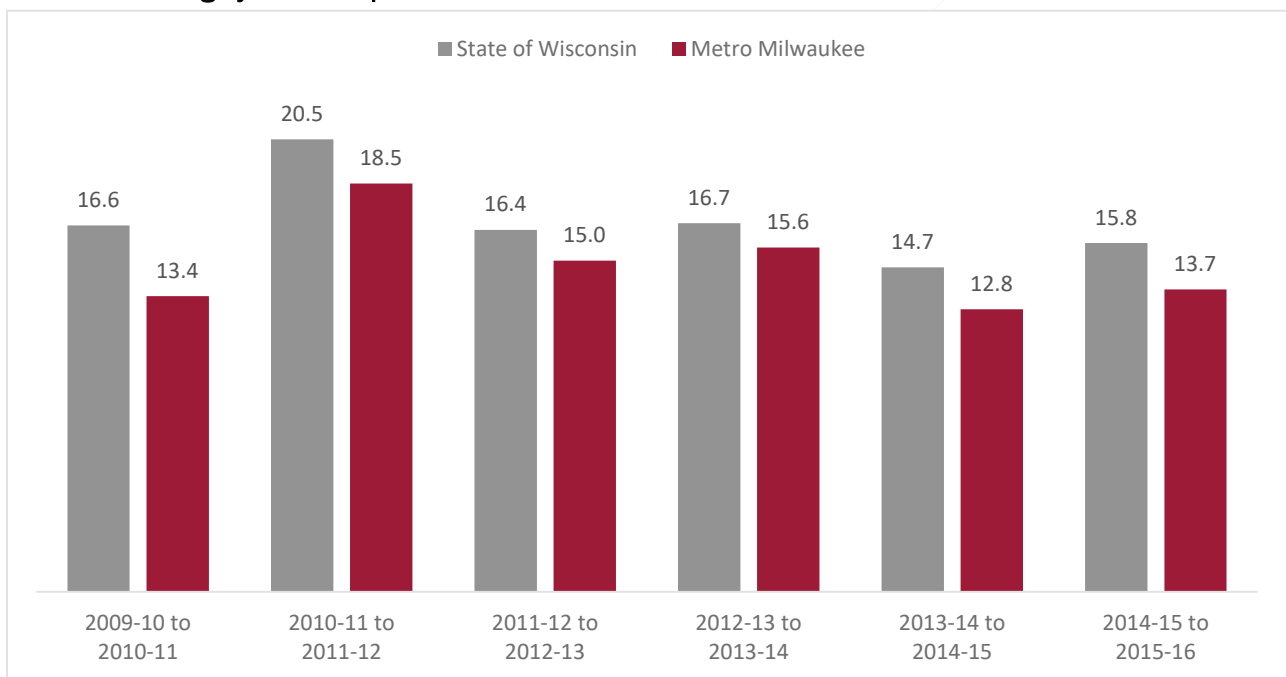


HOW MUCH EXPERIENCE DO TEACHERS HAVE AS THEY LEAVE AND ENTER THE WORKFORCE?

Teacher experience can – but does not always – correlate closely with teacher age. Experience is an important factor to track over time as it has been associated with key educational outcomes such as teacher quality and student academic outcomes.

Chart 15 summarizes the average years of experience among teachers who left the teaching workforce in Wisconsin and metro Milwaukee between each school year. Although we see a small uptick in the most recent year for which data are available, the average years of experience among those leaving the workforce in the last two years in both the region and state remain well below levels from earlier in the period.

Chart 15: Average years of experience of teachers who left the workforce



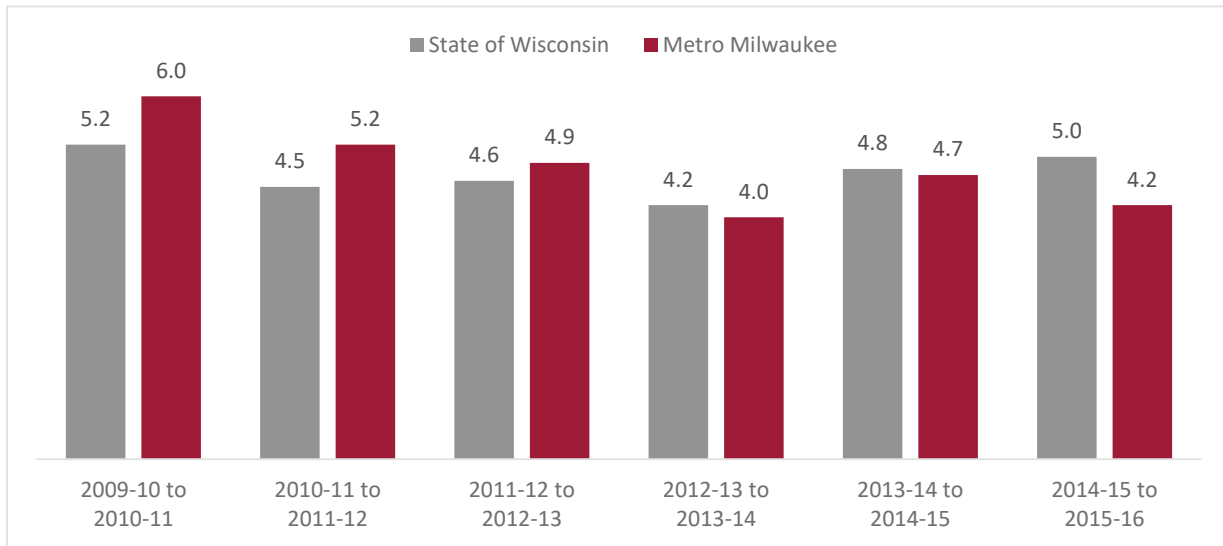
Source: Wisconsin Department of Public Instruction

Those who left the metro region workforce in 2015-16 had an average of 13.7 years of teaching experience, down from 15.6 two years earlier and underscoring an overall downward trend in recent years. Statewide, the average years of experience of leavers was 15.8 years in 2015-16, a decline of almost one year of experience compared to two years ago, also following a pattern of decline over the past several years. These patterns support the earlier conclusion of higher proportions of young teachers (presumably with fewer years of experience) leaving, rather than older teachers reaching retirement age.



Chart 16 shows trends in years of experience for those *entering* the workforce. Between 2014-15 and 2015-16, metro Milwaukee teachers who entered the profession had an average of 4.2 years of experience, while entering teachers statewide had 5 years. For metro Milwaukee, this is a drop of 0.5 years from the previous year, and a drop nearly to its lowest level since the beginning of the six-year time frame. In contrast, average experience levels among statewide enterers steadily increased in the most recent two years as well as overall since 2010-11.

Chart 16: Average years of experience of teachers who entered the workforce



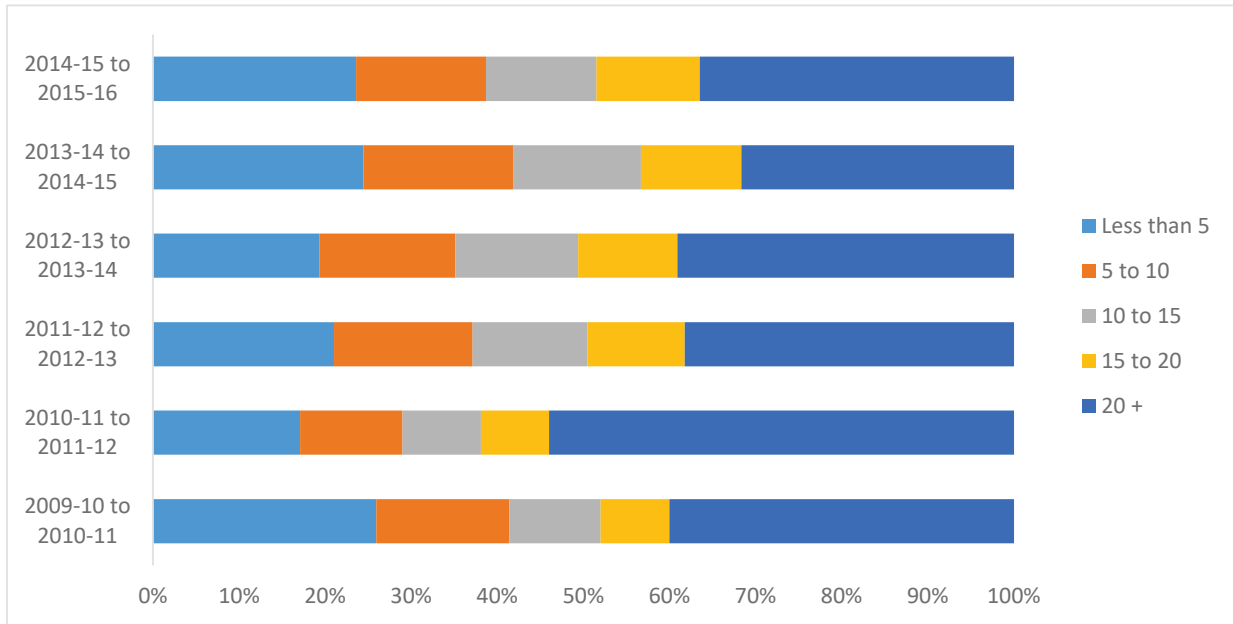
Source: Wisconsin Department of Public Instruction

Chart 17 displays the experience distribution of teachers statewide who *left* the profession. As of 2015-16, Wisconsin teachers with 20 or more years of experience represented the largest group of leavers, followed by those with less than five years of experience. In fact, **almost one in four teachers leave before reaching five years of experience**. Leavers with less than five years of experience were down slightly in 2015-16 from the previous year; overall, however, this group of early-career teachers has been leaving the workforce at increasing rates in recent years.

Teachers leaving the Wisconsin workforce with 20 or more years of experience dropped considerably after the 2013-14 school year to 31.6%. But after 2-14-15, that percentage surged back up to 36.5%. Overall, the proportions of mid-career teachers statewide (those with between 10 and 20 years of experience) have remained stable in recent years. Taken together, these patterns further support the conclusion that an increasing share of teachers in Wisconsin are leaving earlier in their careers.



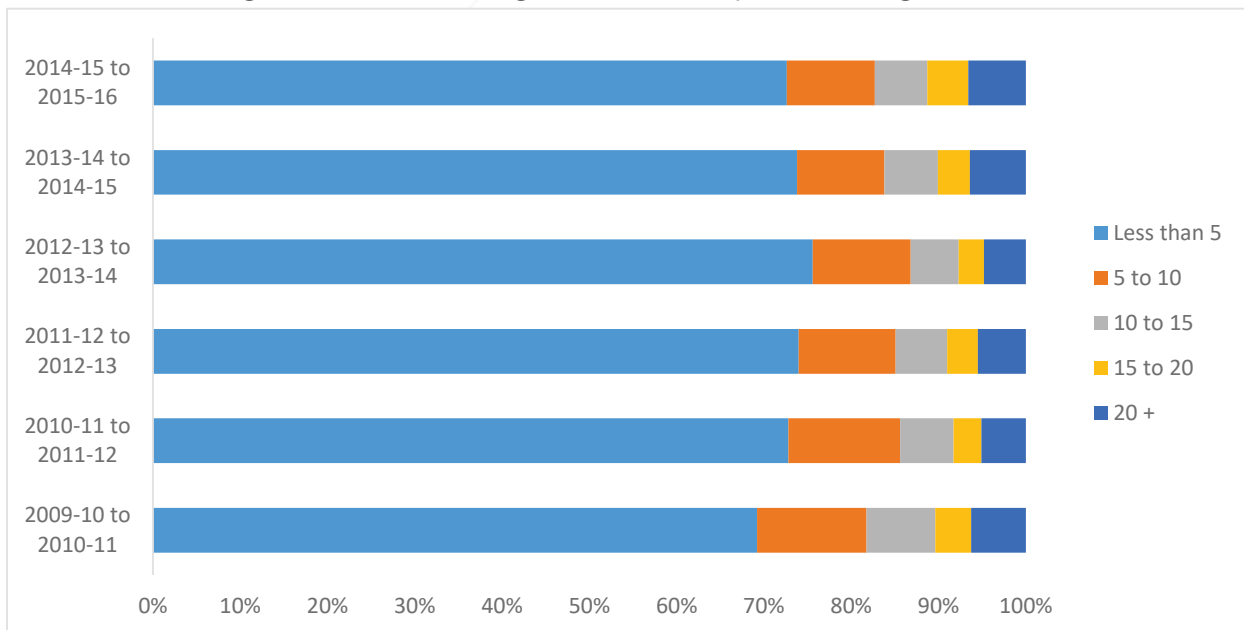
Chart 17: Percentage of teachers leaving the profession by experience group (State of Wisconsin)



Source: Wisconsin Department of Public Instruction

Chart 18 displays experience levels for those *entering* the teaching workforce statewide. Close to three-quarters (72.6%) of those entering the workforce in 2015-16 had less than five years of experience; furthermore, just over half (53.7%) were in their first year of teaching. This matches the percentage from five years earlier, but is considerably lower than more recent levels. Although their percentages are small compared to the other age groups, we do see a slight increase among teachers with 10 or more years of experience re-entering the workforce in recent years.

Chart 18: Percentage of teachers entering the profession by experience group (State of Wisconsin)

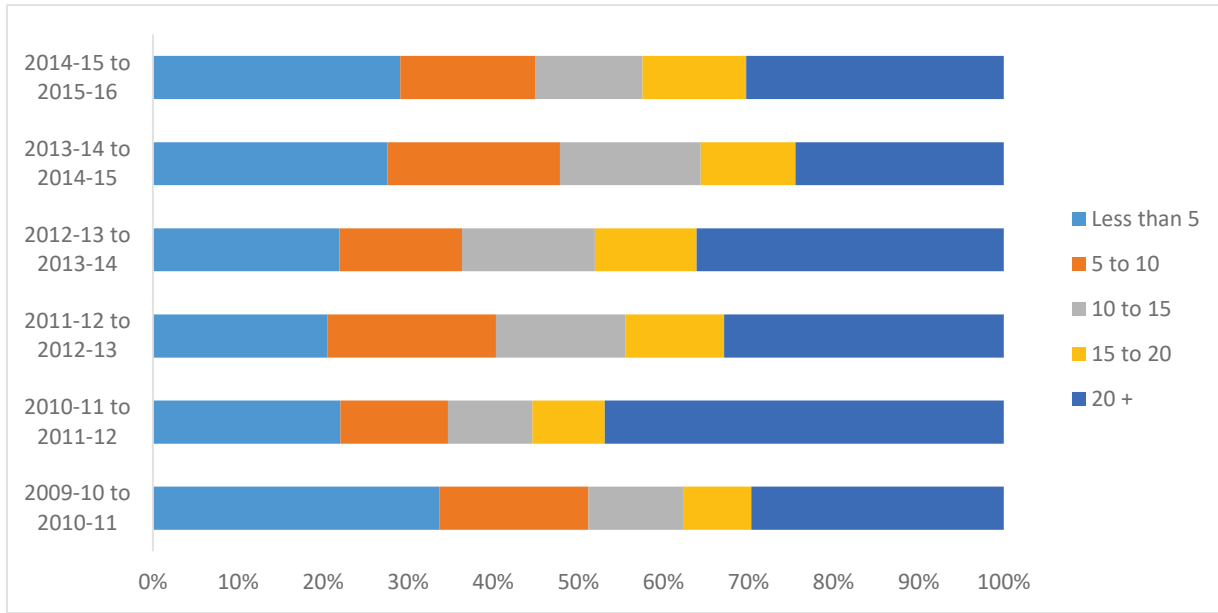


Source: Wisconsin Department of Public Instruction



Chart 19 and **Chart 20** display the same experience distribution data, but this time for the metro Milwaukee region. Returning to a familiar theme, **Chart 19** shows that metro Milwaukee is experiencing a challenge in retaining early-career teachers, with close to a third (29.1%) of leavers having less than five years of experience. This is almost the same as the share of leavers with 20 or more years of experience (30.3%) and outpaces the statewide trend of early-career teacher attrition.

Chart 19: Percentage of teachers leaving the profession by experience group (metro Milwaukee)



Source: Wisconsin Department of Public Instruction

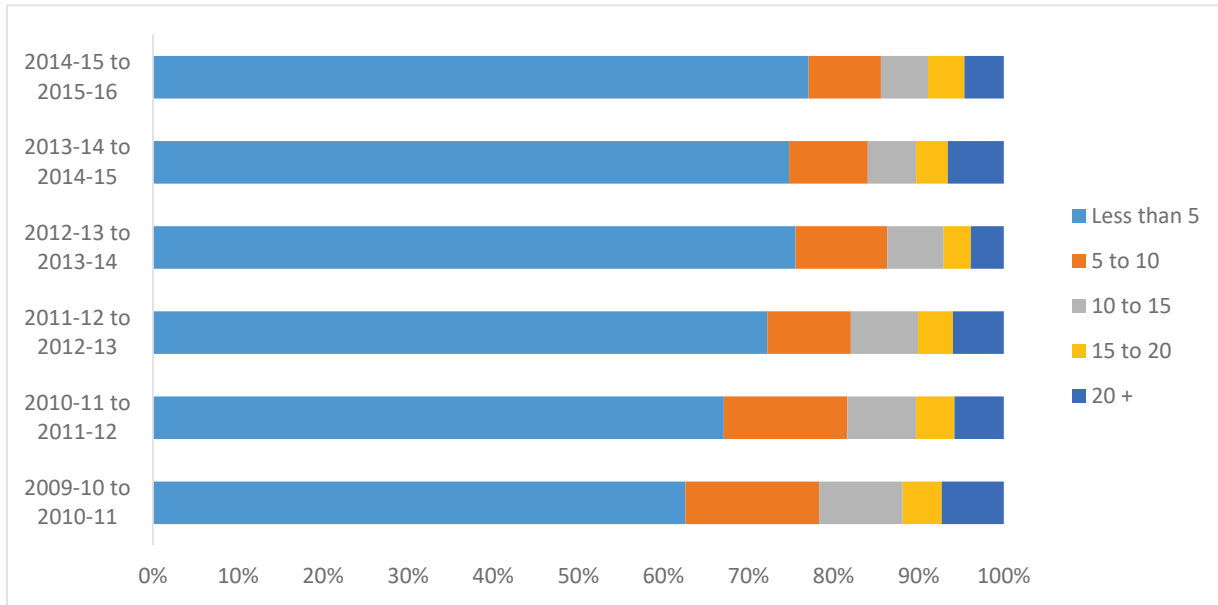
As was noted in the discussion regarding age of departing teachers, the recent upsurge in proportional attrition among early- or mid-career teachers may indicate ongoing trends that could continue in future years. Or it could signal the return to pre-Act 10 patterns (the 2015-16 percentages of leavers in each experience level is quite similar to those that appeared between 2009-10 and 2010-11). Even if current patterns signal a “new normal”, these levels of turnover among new teachers present obstacles to building a sustainable teacher workforce.

Yet, on the other hand, the region saw the proportion of departing teachers with between 5 and 15 years of experience (28.5%) drop significantly over the previous year’s spike (36.9%). The share of mid-career teachers (those with between 10 and 20 years of experience) leaving the workforce in the state and metro region has remained relatively level.

Chart 20 shows that as of the 2015-16 school year, teachers with less than five years of experience were entering the metro Milwaukee teaching market at the highest rate (77.0%) since before 2009-10. Nearly three-fifths (59.9%) were in their first year in the profession. That percentage marks a substantial increase from 2009-10, though it is slightly lower than the peak experienced in 2013-14.



Chart 20: Percentage of teachers entering the profession by experience group (metro Milwaukee)



Source: Wisconsin Department of Public Instruction

Overall, there has been a slight increase among teachers with 15 or more years of experience re-entering the workforce over the past few years. However, the overall proportion of those entering the profession with more than five years of experience has been going down, **making Metro Milwaukee more reliant on inexperienced teachers to fill vacancies than the state as a whole.**

Bottom line: Experience of teachers leaving and entering the workforce

Our two additional years of data indicate a rise in attrition among less experienced teachers, with the trend more pronounced for metro Milwaukee than for the state as a whole. At the same time, relative to the state, metro Milwaukee is more reliant on less experienced teachers to fill vacancies. In both cases, the share of new hires with less than five years of experience is well over 70%, and more than half have less than one year of teaching experience. This shift to a less experienced teacher workforce may be cause for concern among education leaders in the region and across the state, and may call for targeted strategies that address teaching quality as well as training, mentoring, and support of new, but not necessarily younger teachers.



NATIONAL CONTEXT

As local and state education policymakers and administrators search for solutions to workforce challenges, it may be helpful to know whether the trends observed in metro Milwaukee and across Wisconsin reflect patterns experienced elsewhere.

According to a recent report by the Learning Policy Institute,³ teacher attrition currently is projected at an annual rate of 8% and is the largest driver of annual demand for teachers across the U.S. Also, about two-thirds of teachers nationwide leave before retirement. By comparison, the average annual teacher attrition rate in Wisconsin and metro Milwaukee from the 2009-10 through the 2015-16 school years was below 3%, although the rate of pre-retirement attrition in Wisconsin is on par with national trends.

Metro Milwaukee and Wisconsin education leaders may find it instructive to note the national report's observation that **attrition appears to be putting significantly greater pressure on teacher demand than declines in teacher preparation enrollments**. Moreover, national trends show that like Wisconsin and especially metro Milwaukee, **pre-retirement attrition is growing steadily and is accounting for the largest share of teacher turnover**.

How do Wisconsin and metro Milwaukee's teacher workforces compare to national averages with respect to age and experience? The most recent release of federal government data on the K-12 public teacher workforce indicates the average U.S. teacher is 42 years old and has 13.7 years of experience.⁴ This is virtually identical to the average across Wisconsin's teacher workforce. Metro Milwaukee's teacher workforce is about the same average age but the average teacher possesses one fewer year of experience (12.7). Drilling down to MPS, we see some of the trends in this report reflected. On average, MPS teachers are slightly older than their national counterparts (43.6) and have fewer years of experience (12.0).



CONCLUSION

Overall, our updated analysis of teacher workforce trends in metro Milwaukee and Wisconsin reveals that although the teacher workforce in the region and state was smaller in the 2015-16 school year than it was six years earlier, the downward trends appear to be stabilizing. In fact, we see that the region's classrooms contained 75 (0.5%) more teachers in 2015-16 than they did when we last examined data for the 2013-14 school year, and the state had 140 (0.2%) more teachers.

The following are key findings that emerge from our analysis of two additional years of teacher workforce data covering the 2014-15 and 2015-16 school years:

- **In the aggregate, annual teacher attrition in the region and state has returned to near pre-Act 10 levels.** Between the 2014-15 and 2015-16 school years, 1,259 teachers left the workforce in metro Milwaukee, while 4,604 teachers left the state's teacher workforce. That compares to 1,498 teachers who departed the region's teacher workforce two years earlier (a reduction of 16%) and 4,932 teachers who left the state workforce (a reduction of 7%). These departure levels are the lowest since the year immediately preceding the adoption of Wisconsin Act 10, when 1,223 teachers left the region's workforce and 4,173 left the state's teacher workforce.
- **The number of teachers entering the region and state has largely kept pace with those who leave from year to year.** In metro Milwaukee, the number of teachers entering the workforce over the latest two years exceeded the number who departed by 45 teachers. For the state as a whole, those entering exceeded those departing by 134 teachers. These numbers do not necessarily mean that districts have been free from recruitment challenges, especially for certain subjects, student populations, and geographic areas. But they do suggest that from a regional and statewide perspective, the *overall supply of teachers currently* is meeting overall demand.
- **District by district teacher supply trends appear less conclusive.** The metro region is roughly split between the number of districts that saw teacher attrition or attraction rise versus fall in the additional two years encompassed in our analysis. Similarly, in about half of the region's school districts, the number of teachers hired was less than the number who departed, which may suggest the existence of teacher shortages in some of those districts. Impacts may be most acute in smaller districts; for example, we found six rural and suburban districts that lost between 17% and 24% of their teacher workforces in one of the two years in question.
- **There is a clear shift toward younger teachers *leaving* the workforce, as opposed to older teachers retiring, in both the state and (especially) the metro Milwaukee region.** The average age of a departing teacher in metro Milwaukee between the 2014-15 and 2015-16 school years (45.2) is 2.4 years younger than two years earlier, while the average age of departing teachers statewide (46.4) is 1.3 years younger. Additionally, schools in the metro region are replacing teachers with higher proportions of older entering teachers than schools statewide.



- **Teachers who are departing increasingly are newer to the profession, and this trend also is more pronounced for metro Milwaukee than for the state as a whole.** Among teachers who leave their position, almost one in three from metro Milwaukee and one in four statewide do so before hitting the five-year mark, a measure that appears to be trending upward in recent years. At the same time, relative to the state, metro Milwaukee is more reliant on less experienced teachers to fill vacancies. Recent patterns of high proportional attrition among new and younger teachers may signal a growing trend, but they may also indicate a return to patterns that existed before Act 10. Nevertheless, younger and newer teachers are those in whom schools and districts presumably have invested considerably in terms of recruitment, induction, and early-career professional development, and need to retain for workforce stability.

These findings raise several important issues for education leaders to consider. Although the overall downward trend of teacher departures in metro Milwaukee and statewide is a hopeful reversal from the trend we reported two years ago, the large percentage of departures among younger and newer teachers raises potential concerns. MPS, for instance, estimates about 80% of its departures after 2014-15 were resignations, not retirements. **Even if aggregate teacher supply levels remain stable and attrition rates continue at current rates, an inability to retain young and less experienced teachers may pose a significant cost to districts and may threaten the ability of individual schools and districts to maintain a stable, high-quality teaching corps or to staff their classrooms at appropriate levels.**

Of particular concern is the effect of turnover in high-poverty schools, which have been estimated nationally at 50% higher relative to more affluent schools – a pattern that leads to higher concentrations of inexperienced teachers in schools with high poverty and high percentages of minority students.⁵ Not surprisingly, the harm from teacher turnover on student achievement is more pronounced in those schools, **adding fuel to the persistence of achievement gaps.**⁶

Distinct from the harm caused to students, teacher turnover is detrimental to schools and school communities. Resource-stretched schools with high turnover incur additional expenses to recruit, train, and provide customized support to replacement teachers, who are increasingly less experienced but span a wide age range. Schools and districts also rely on stop-gap measures such as increasing class size and hiring underprepared teachers, which can further drive up attrition rates. In addition, research has found that instability from the churn of attrition undermines school culture and collegiality, as well as school improvement initiatives.⁷

Much recent discussion at both the state and regional levels has focused on remedies to address *immediate* needs for teachers in classrooms. For example, solutions have been proposed – and recently adopted by the Wisconsin Legislature – to relax and simplify licensing requirements around who can teach and where.⁸ Districts, likewise, have taken matters into their own hands with short-term strategies such as offering financial incentives to both recruit and retain teachers, filling vacancies with substitutes, or lowering hiring standards, to name a few.⁹

Leaving aside discussion of the merits and outcomes of such short-term strategies, our analysis suggests that efforts to foster longer-term *sustainability and stability* in Wisconsin's teaching workforce also must address high rates of teachers resigning at earlier stages of their careers that is



creating these vacancies. **Specifically, efforts to improve *teacher retention* – and to address the question of why rising numbers of non-retirement age teachers are leaving the profession – should be receiving as much attention as efforts to enhance enrollment in teacher preparation programs or relax requirements for mid-career individuals seeking to enter the teaching profession.**

The trends revealed in this analysis – and particularly those related to early- and mid- career teacher attrition – have the potential to threaten the future quality of the region’s workforce, the strength of its economy, and its quality of life. We hope educational leaders and policy makers leverage this information as a call to action to investigate the causes and conditions that may be driving some of these challenges and to channel activities and resources toward building a stable, diverse, high-quality teaching workforce throughout Greater Milwaukee and Wisconsin.



ENDNOTES

¹ Podolsky, A.; Kini, T., Bishop, J.; & Darling-Hammond, L. (2016) Solving the teacher shortage: How to attract and retain excellent educators. Learning Policy Institute. <https://learningpolicyinstitute.org/product/solving-teachershortage>

² The report can be accessed at <https://publicpolicyforum.org/research/help-wanted-analysis-public-school-teacher-pipeline-greater-milwaukee>

³ Sutchter, L., Darling-Hammond, L., & Carver-Thomas, D. (2016) A coming crisis in teaching? Teacher supply, demand, and shortages in the U.S. Palo Alto, CA: Learning Policy Institute. https://learningpolicyinstitute.org/sites/default/files/product-files/A_Coming_Crisis_in_Teaching_REPORT.pdf

⁴ Taie, S., and Goldring, R. (2017) Characteristics of Public Elementary and Secondary School Teachers in the United States: Results From the 2015–16 National Teacher and Principal Survey First Look (NCES 2017-072). U.S. Department of Education. Washington, DC: National Center for Education Statistics. <https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2017072>

⁵ Podolsky, A., Kini, T., Bishop, J., & Darling-Hammond, L. (2016). Solving the Teacher Shortage: How to Attract and Retain Excellent Educators. Palo Alto, CA: Learning Policy Institute https://learningpolicyinstitute.org/sites/default/files/product-files/Solving_Teacher_Shortage_Attract_Retain_Educators_REPORT.pdf

⁶ Ronfeldt, M., Landford, H., Loeb, S., Wyckoff, J. (June 2011) How teacher turnover harms student achievement. National Bureau of Economic Research. Working Paper No. 17176. <http://www.nber.org/papers/w17176>

⁷ Guha, R., Hyler, M.E., and Darling-Hammond, L. (2016). The Teacher Residency: An Innovative Model for Preparing Teachers. Palo Alto, CA: Learning Policy Institute. https://learningpolicyinstitute.org/sites/default/files/product-files/Teacher_Residency_Innovative_Model_Preparing_Teachers_REPORT.pdf

⁸ In an effort to address teacher shortage concerns on the part of school district administrators, the Wisconsin Department of Public Instruction promulgated emergency rules that relaxed a number of requirements related to educator licensing, license renewals, required testing, short-term substitute time limits, and so on. Wisconsin's 2017-19 biennial budget made permanent a number of similar provisions. Summaries of these provisions can be found on pages 12-13 of the following link: https://dpi.wi.gov/sites/default/files/imce/policy-budget/pdf/Act%2059%202017-19%20CONDENSED%20Budget%20Summary_Nov%209.pdf

⁹ Wisconsin Department of Public Instruction. Attracting, Recruiting, and Retaining Wisconsin Educators School District Survey 2015-16. <https://dpi.wi.gov/sites/default/files/imce/tepd/pdf/WI%20Educator%20Staffing%20Data%20-%20Attract%20Recruit%20Retain%20Data.pdf>

