



## State of K12 Education in Milwaukee

*For questions or feedback regarding this report, contact Spencer Schien at  
spencer.schien@cityforwardcollective.org.*

*2019-12-06*

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## Introduction

The primary metric for measuring the quality of K12 schools in Milwaukee is the School Report Card produced by the Wisconsin Department of Public Instruction (DPI). Every public school or private school participating in a choice program (e.g. the *Milwaukee Parental Choice Program*) receives a School Report Card, and each Report Card provides an *Overall Score*<sup>1</sup> that designates whether the school falls in one of the following *Overall Rating* categories:

- Fails to Meet Expectations
- Meets Few Expectations
- Meets Expectations
- Exceeds Expectations
- Significantly Exceeds Expectations

The *Overall Score* is calculated as a weighted average of the four Priority Areas: *Student Achievement*, *School Growth*, *Closing Gaps*, and *On-Track and Postsecondary Readiness*.

Each Priority Area is a specific metric with its own calculations, but all four include student test results from the Wisconsin Student Assessment System. The tests included in the Report Card Calculations are as follows:

- Forward Exam (grades 3 - 8)
- ACT Aspire (grades 9 - 10)
- ACT (grade 11)
- Dynamic Learnings Map (grades 3 - 11 for students with disabilities)

The ***Student Achievement Score*** is a standards-based measure of student proficiency, similar to gauging whether a school's students are on grade level or not.

The ***School Growth Score*** is a norm-based measure of how much students grow from year to year, similar to gauging whether a student grew a full grade level or not.

The ***Closing Gaps Score*** is a comparative measure to determine if disadvantaged groups of students are catching up with their non-disadvantaged peers.

The ***On-Track and Postsecondary Readiness Score*** is a measure of students' readiness to graduate high school and succeed in college.

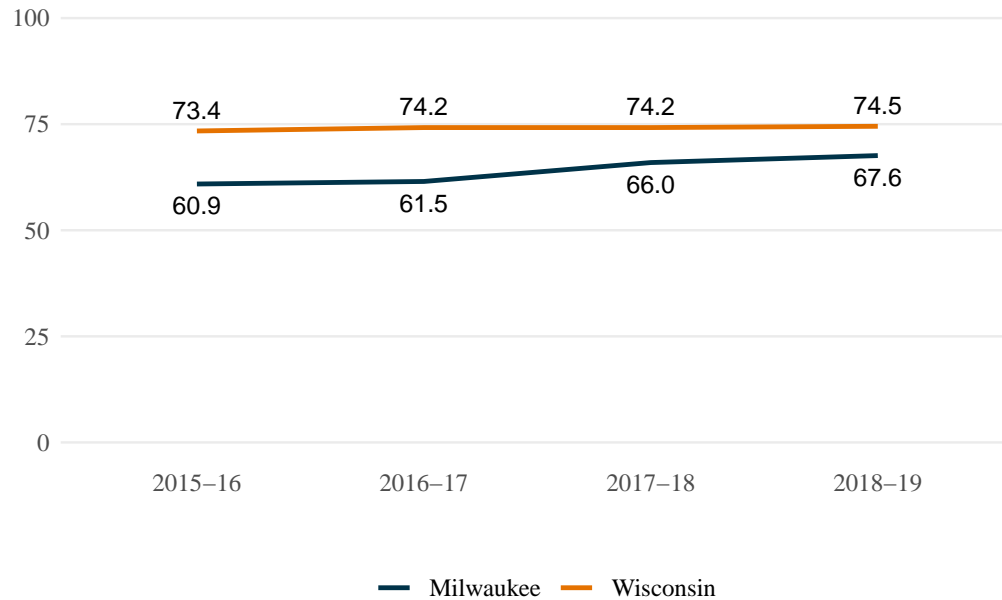
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<sup>1</sup>In the case where a school does not have enough student test or other data to compute scores, an *Overall Score* is not be produced.

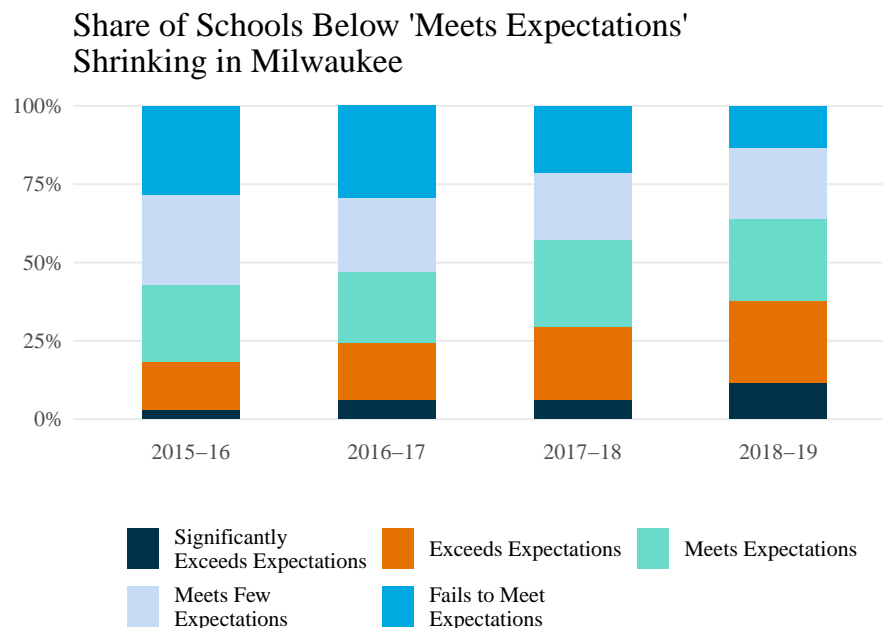
## At Face Value

In Milwaukee, School Report Card *Overall Scores* have been improving while these scores in the rest of the state have remained flat. This would seem to indicate that schools in Milwaukee are improving and catching up with their higher-performing peers outside the city.

### Milwaukee Overall Scores Improving Numbers Represent Median Values

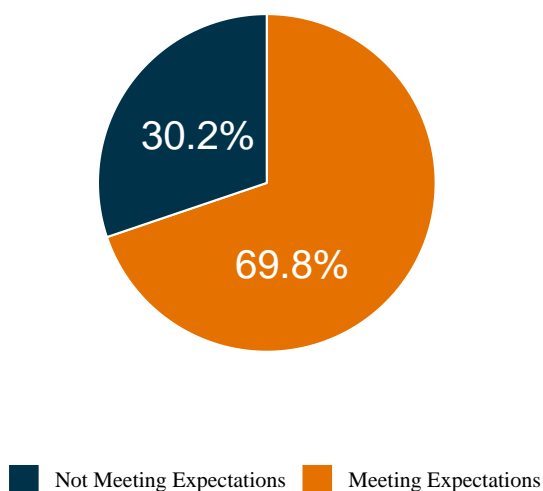


The picture looks even rosier if we consider where Milwaukee schools fall in the *Overall Rating* categories. These are the categories associated with the star ratings, and the graphic below shows how the share of schools in the lowest category – *Fails to Meet Expectations* – has shrunk by more than half, from 28% to 13% of all Milwaukee schools.



And finally, if we compare the percentage of students enrolled in schools that meet or exceed expectations<sup>2</sup> to the percentage of students in schools that do not meet expectations<sup>3</sup>, we see that a solid majority of students were enrolled in schools Meeting Expectations in the 2018-19 school year.

### More than 2/3 of Milwaukee Students Enrolled in Schools Meeting Expectations in 2018-19



<sup>2</sup>Schools with an *Overall Rating* of Meets Expectations, Exceeds Expectations, Significantly Exceeds Expectations, or Alternate Rating - Satisfactory Progress.

<sup>3</sup>Schools with an *Overall Rating* of Meets Few Expectations, Fails to Meet Expectations, or Alternate Rating - Needs Improvement.

## A Deeper Analysis

Beyond the initial impression that schools are improving in Milwaukee, an analysis of the *Overall Scores* of Milwaukee schools fails to provide much insight as to what is actually happening with school outcomes. What accounts for the improvements in the scores? We know that four Priority Area scores go into the *Overall Score* calculation, so have there been improvements in certain scores that would explain the rise in citywide scores? Is there something else going on that would explain it?

To answer these questions, we first need to understand how the Priority Areas are combined to compute the *Overall Score*.

### Priority Area Weighting

The weights applied to the Priority Areas in the *Overall Score* calculation determine how much each area will count towards the top line score – the higher the weight, the more it will count. In general, the *Closing Gaps Score* and the *On-Track and Postsecondary Readiness Score* receive the same weighting – both areas are usually weighted at 25% each.<sup>4</sup> This leaves another 50% of weights for the *Student Achievement* and *School Growth* scores.

### Variable Weighting

The ratio of achievement to growth weighting within this other 50% is determined by what is known as *Variable Weighting*. A formula, written into state law, determines what the ratio between these two scores will be, and the formula is based on the percentage of economically disadvantaged (ECD) students the school serves. The formula works out as follows:

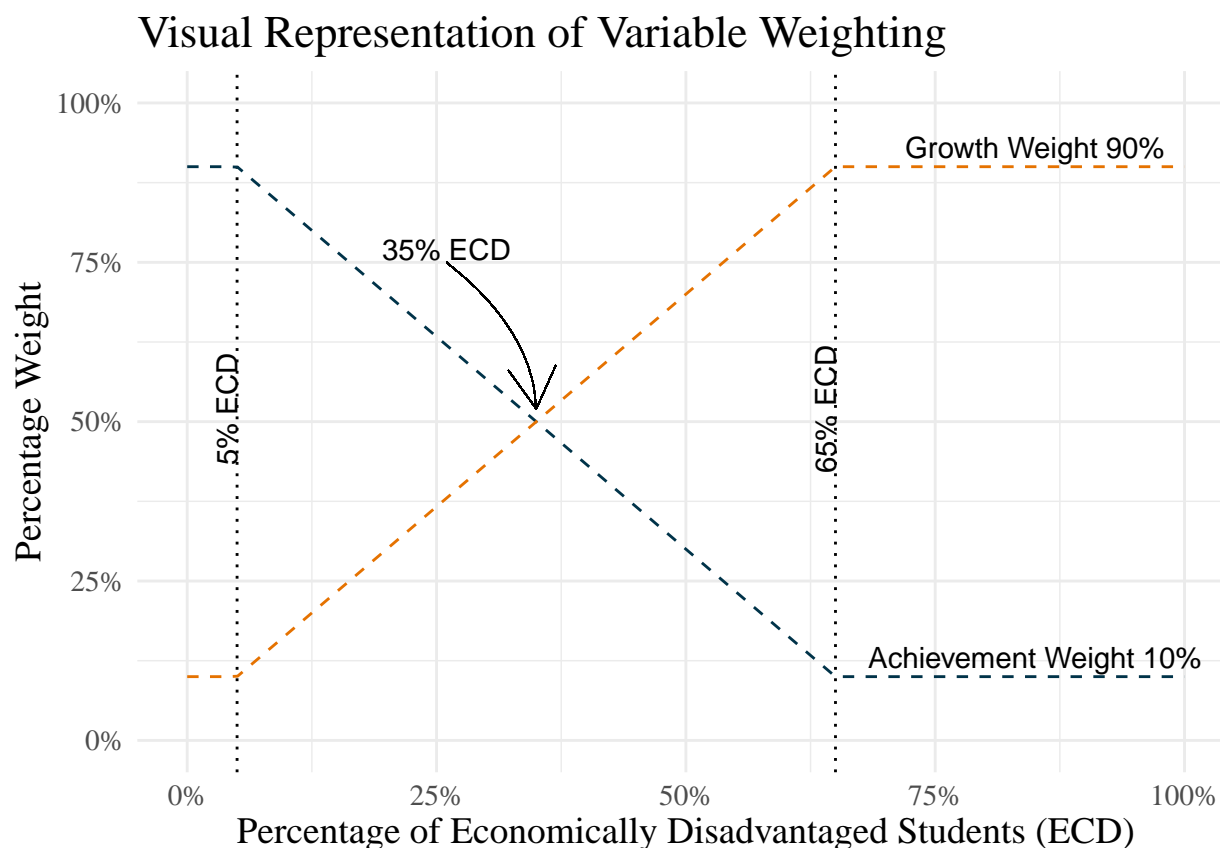
- Schools serving 65% or higher economically disadvantaged students have their *School Growth Score* weighted 90% and their *Student Achievement Score* weighted 10%.<sup>5</sup>
- Schools serving 5% or lower economically disadvantaged students have their *School Growth Score* weighted 10% and their *Student Achievement Score* weighted 90%.
- Schools serving between 5% and 65% economically disadvantaged students have weights determined by a formula that creates a sliding scale where achievement is weighted more on the low end of ECD and growth is weighted more on the high end.

The figure below depicts the resulting ratio of achievement to growth determined by *Variable Weighting*.

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<sup>4</sup>There are many caveats to the weighting formula. For instance, high schools that only serve grades 9 - 12 will have a different weighting because they don't have scores for 3rd Grade ELA or 8th Grade Math, both of which go into the *On-Track Score* when they are present.

<sup>5</sup>Remember that this is the weighting between achievement and growth, which combined account for 50% of the *Overall Score*. So, when we say that *School Growth Score* is given a 90% weight from *Variable Weighting*, that extrapolates to 45% of the *overall Score* (90% of 50% is 45%).

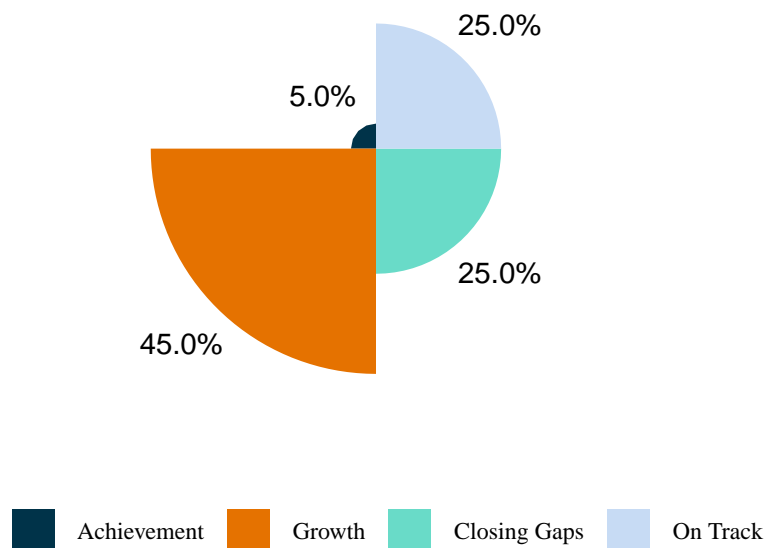


#### Most Common Weighting in Milwaukee

Since the Report Card was reissued for all schools after a pause in 2014-15, schools have been accruing the data necessary to compute all the scores (this is most true of private schools that had no data prior to the 2015-16 school year). If a school did not have a score, the weighting would shift so the school would not be punished for not having enough data.

As of the 2018-19 Report Cards, all schools have enough data to compute all scores, which means the weighting is not thrown off by lack of certain scores. When all scores are present, the only variable that will determine the difference in weighting from one school to another is the percent of economically disadvantaged students served by the school (i.e. *Variable Weighting*). Since most schools in Milwaukee serve a student population that is greater than 65% economically disadvantaged – and since *Variable Weighting* assigns a constant weight to schools above that threshold – most schools in Milwaukee receive the same Priority Area weights to compute their *Overall Score*. This most common weighting is depicted below.

## Most Common School Report Card Overall Score Weighting



Based on this weighting, for most schools in Milwaukee, *Student Achievement* is worth just 5% of the Overall Score – it means almost nothing compared to the other Priority Areas. Conversely, *School Growth* comprises nearly half of the *Overall Score*, giving it the largest impact of any of the Priority Areas.

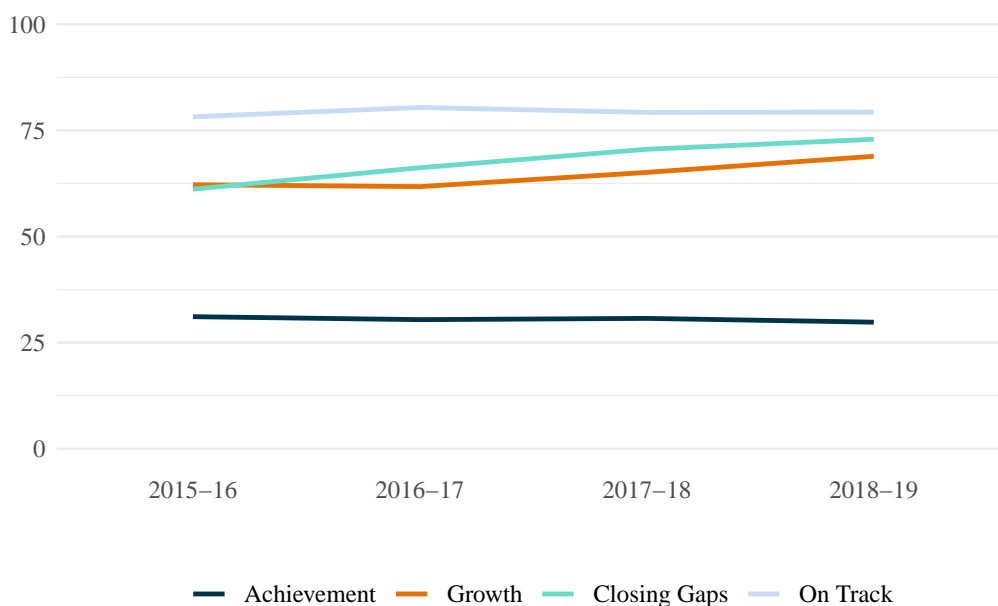
### The Impact of Weighting

Now that we know the most common weights of each Priority Area, we can combine that information with the score trends of each Priority Area to understand why the *Overall Scores* have been improving.

As we can see from the line graph below, both the *Student Achievement* and the *On-Track and Postsecondary Readiness* scores have remained fairly stable over the past four years, while *School Growth* and *Closing Gaps* scores have significantly improved. And since these latter two Priority areas together make up 75% of the *Overall Score* for most schools, it is now clear why we have seen an uptick in *Overall Scores*.

## Milwaukee Priority Area Score Trends

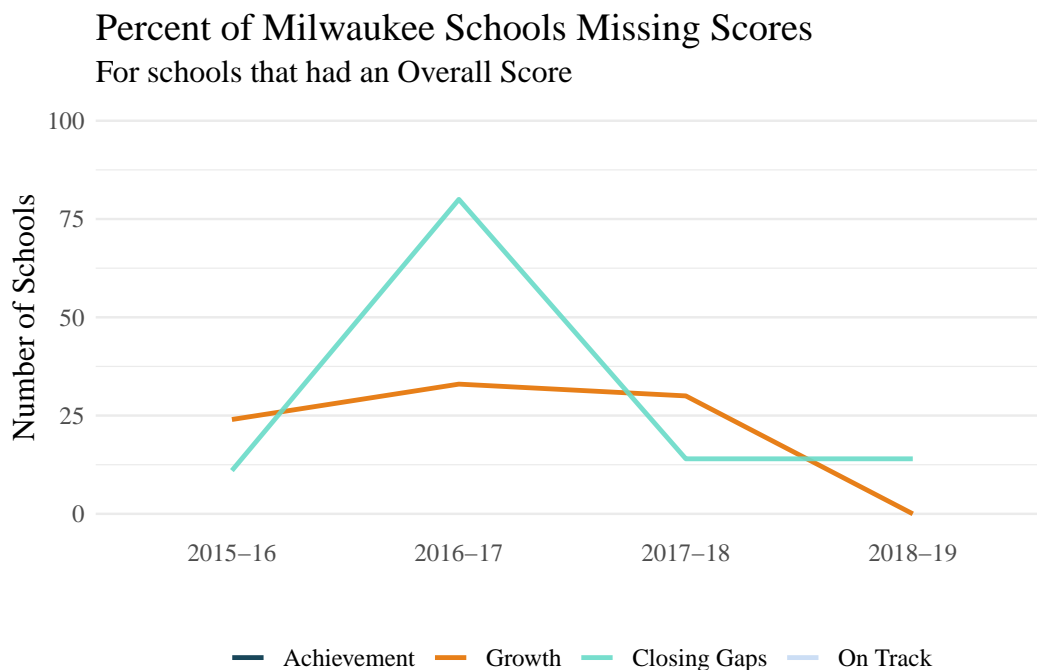
Numbers Represent Median Values



### Score Availability

One final consideration we need to make in our analysis regards the presence of each Priority Area Score over the years. As stated above, if a school does not have enough student test data to compute a score, the *Overall Score* weighting will shift. Due to the way the scores are calculated for each Priority Area, the two most stable scores – *Student Achievement* and *On-Track and Postsecondary Readiness* – are the scores which have the lowest likelihood that a school will not have enough data to compute a score. The other two Priority Areas require more years of data, and therefore have been missing more often.





Note: Achievement and On Track are 0 for all years.

As discussed above, schools have been accruing data every year from which each Priority Area score can be computed. In 2016-17, private schools had enough data to compute an *Overall Score* for the first time, but they still lacked enough to compute a *Closing Gaps Score* or – to a lesser extent – a *School Growth Score*. This explains the spike in missing scores that year.

The general trend we observe is towards schools missing no Priority Area scores. Indeed, in 2018-19, for schools that receives an *Overall Score*, only the *Closing Gaps Score* was missing. Again, this is because we now have enough years of data to compute the other scores.

### An Example School

The availability of the *School Growth Score* in particular affects *Overall Scores*. Consider an average school in Milwaukee, and let's say this school didn't have enough student test data to compute a *School Growth Score* last year. So, the *Student Achievement Score* received the largest weight of any Priority Area, and since the average school in Milwaukee shows low *Student Achievement Scores*, the *Overall Scores* was correspondingly low.

Next consider that same school this year, and let's say this year's test results show that the same number of students were tested and the same number were proficient or advanced. With another year of student test data, a *School Growth Score* is computed. And since this average Milwaukee school serves a student population of greater than 65% economically disadvantaged students, the *School Growth Score* replaces the *Student Achievement Score* as the largest weight, while the *Student Achievement Score* barely matters at all.

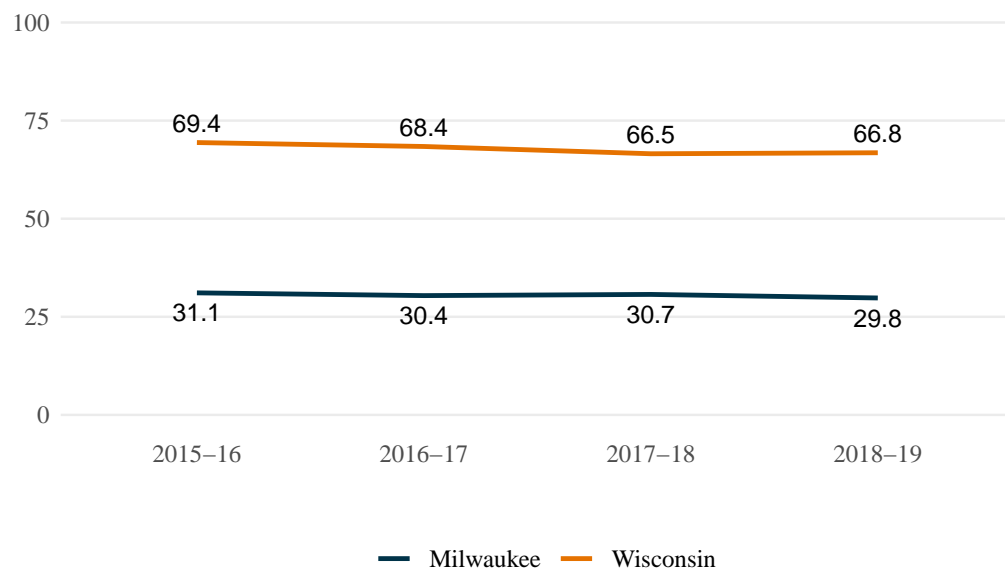
The most impactful Priority Area in the *Overall Score* computation is now over twice as high as it was last year, and the lowest scoring Priority Area has little impact on the *Overall Score*. As a result, the *Overall Score* for this school increased significantly from last year, **even though student test outcomes were exactly the same.**

## Conclusion

Though the Report Card *Overall Score* has been improving for Milwaukee schools, the change in scores should not be interpreted as an improvement in school quality. Scores have been changing as a result of data availability – as more student test data has become available, the calculations behind the Priority Area Scores have changed. These changes have effected the *School Growth Score* and the *Closing Gaps Score* most, and since *School Growth* is the most impactful measure for Milwaukee schools, these changes have had a significant impact on *Overall Scores*.

Conversely, the *Student Achievement Score*, for which schools have had enough data the longest and which therefore should be seen as the Priority Area score with the highest integrity, has actually dropped over the past few years. Put another way, students are no more proficient than they were four years ago.

### Milwaukee Achievement Scores Not Improved Still Far Below Rest of WI



Numbers Represent Median Values