

2018-19 Strategic Data Dashboard Presentation

Prepared for the Milton School Committee December 4, 2019

Vy Vu, Director of Data & Analytics



Context

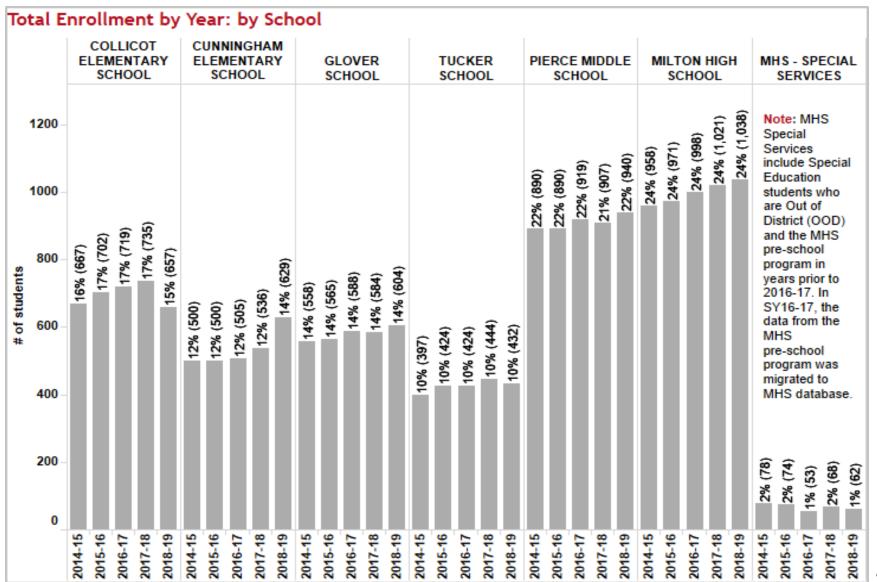
- On an annual basis, the Milton Public Schools (MPS) has prepared various data reports – on demographics/diversity, assessment results, college enrollment, athletics etc.
- Over the past three years, MPS has engaged in a strategic planning process to ensure prioritization of specific goals and objectives.
- In an effort to align data reporting, we will report on key data points in a "Strategic Data Dashboard" that maps to the MPS Strategic Plan and priorities.
- The data presented will show the big picture view of our district's progress toward strategic goals.
- Supporting data will be included in the appendix for reference.
- We envision this "Strategic Data Dashboard" will evolve every year as we achieve target goals and establish new ones.
- Goals captured in this presentation reflect the goals of the MPS Strategic Plan, the School Committee, and the Superintendent.

MPS STRATEGIC DATA DASHBOARD 2018-19

As a district, we are interested in evaluating key data points along the educational trajectory of our students from grades Pre-K through 12. These key data points are meant to give us an overall view of our education system and help us to identify areas of strength as well as areas for improvement.



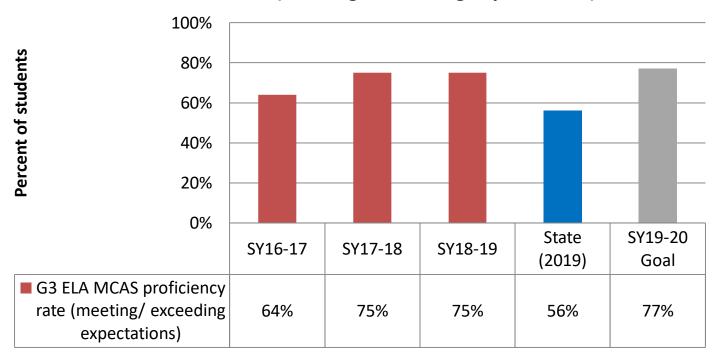
Student Demographics – Total Enrollment





Curriculum & Instruction: Student Outcomes – G3 ELA

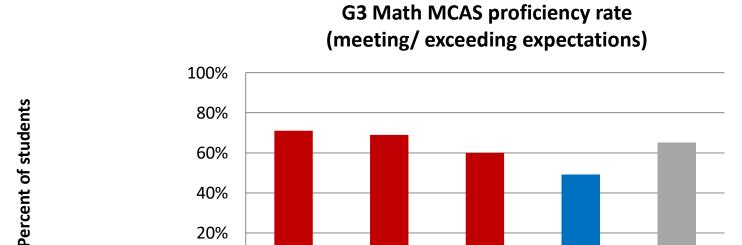
G3 ELA MCAS proficiency rate (meeting/ exceeding expectations)



Research shows that reading proficiently by third grade correlates with later academic achievement in school.



Curriculum & Instruction: Student Outcomes – G3 Math



SY17-18

69%

SY18-19

60%

Research shows that number sense is key in developing students' mathematical thinking and lay a foundation for success in mathematics in later years. To measure math skills in the early grades, we look at the third grade MCAS math test.

SY19-20

Goal

65%

State

(2019)

49%

SY16-17

71%

20%

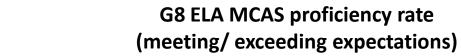
0%

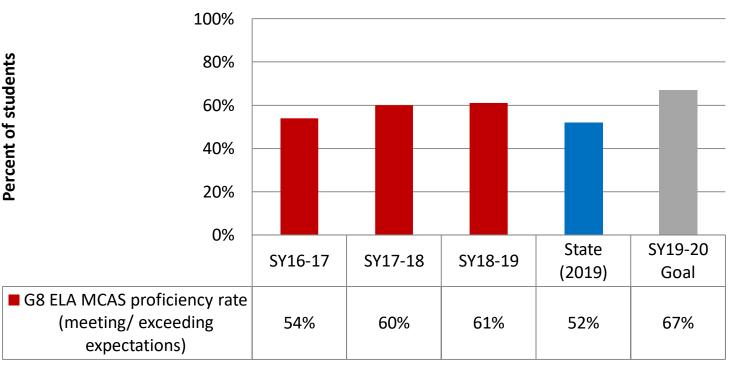
■ G3 Math MCAS proficiency rate (meeting/ exceeding

expectations)



Curriculum & Instruction: Student Outcomes – G8 ELA



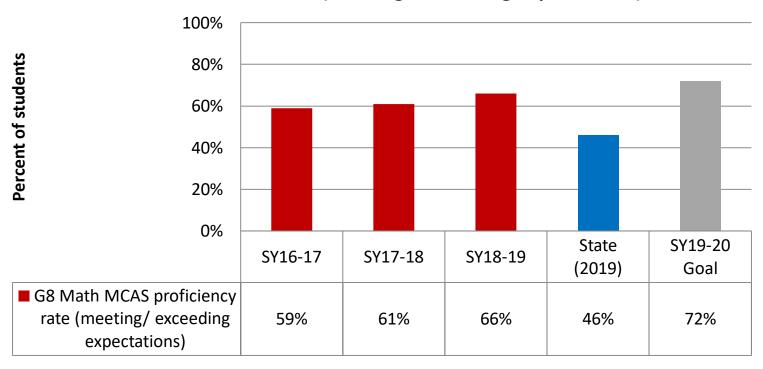


For middle school data, we will look to 8th grade ELA and Math MCAS tests to give us an indication of where our students are by the end of middle school.



Curriculum & Instruction: Student Outcomes – G8 Math

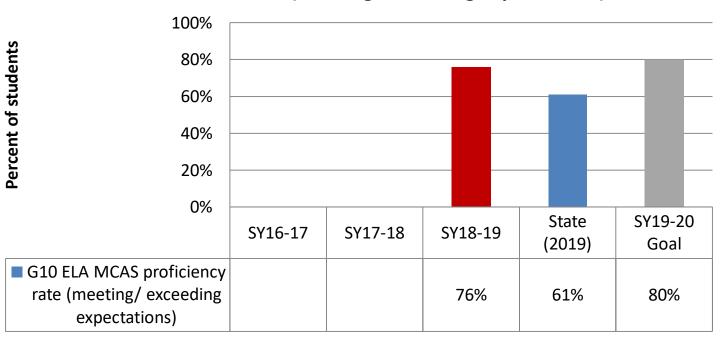
G8 Math MCAS proficiency rate (meeting/ exceeding expectations)





Curriculum & Instruction: Student Outcomes – G10 ELA

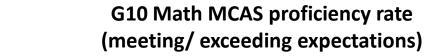
G10 ELA MCAS proficiency rate (meeting/exceeding expectations)

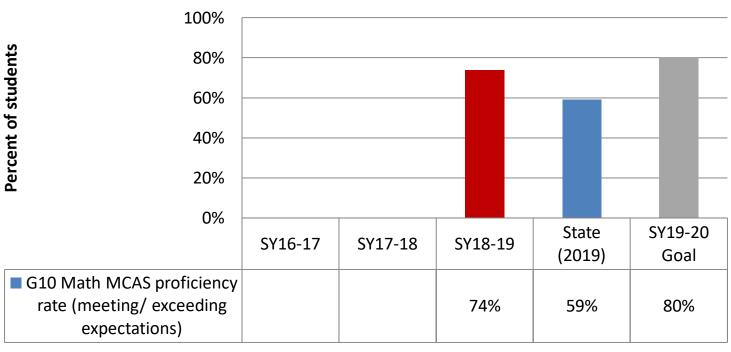


Massachusetts just transitioned to the Next-Generation MCAS for Grade 10 in ELA and Math in SY18-19. The reason for the transition to the Next-Generation MCAS is to raise standards, so that students graduating from high school are better prepared for the rigor of college and career. Over the next few years, DESE will decide on new requirements for high school graduation, including the role of the new Grade 10 tests. Historically, the percent of students in Advanced/Proficient on the Legacy MCAS has been in the high 90s for MPS in ELA. SY18-19 is the first year of the redesigned Next-Generation MCAS test for G10 in ELA and Math.



Curriculum & Instruction: Student Outcomes – G10 Math





Historically, the percent of students in Advanced/Proficient on the Legacy MCAS has been in the low 90s for MPS in Math.

Note: SY18-19 is the first year of the redesigned Next-Generation MCAS test for G10 in ELA and Math.



Curriculum & Instruction: Student Outcomes – DESE Accountability

| DESE Accountability - Overall | 2017-18 (baseline year) | | 2018-19 (two years cumulative) | | |
|-------------------------------------|----------------------------|------------|--------------------------------------|------------|--|
| | % | | % | | |
| | Progress | Percentile | Progress | Percentile | |
| MPS District | 64% | n/a | 66% | n/a | |
| MHS | 67% | 75 | 55% | 81 | |
| PMS | 26% | 59 | 52% | 68 | |
| Collicot | 93% | 91 | 81% | 90 | |
| Cunningham | 84% | 88 | 82% | 91 | |
| Glover | 94% | 92 | 88% | 91 | |
| Tucker | 81% | 93 | 62% | 86 | |

| SY19-20 Cumulative |
|---------------------------|
| Goal: At least 50% |
| progress at every school. |

| % Progress | Meaning |
|------------|--------------------------------|
| 0-24% | Limited or |
| | no progress |
| 25-49% | Moderate |
| | progress |
| 50-74% | Substantial progress |
| 75%-100% | Meeting or exceeding targets |
| | progress Meeting or exceeding |

In Massachusetts's new accountability system, implemented in SY17-18, every school in the state receives two scores - the % progress toward improvement targets, which measures the school's progress against its own performance in the previous year; and the accountability percentile, which ranks the school against other schools in their peer groups (non-high schools and high schools). These two scores give us an overall indication of how each of our schools is performing. The district is calculated as if it were a giant school. Districts do not receive a percentile ranking.



Curriculum & Instruction: Student Outcomes – DESE Lowest Performers

| DESE | 2017-18 | | 2018-19 | |
|----------------------|------------|--------|----------------|--------|
| Accountability | % Progress | | % Progress | |
| | Non-high | High | Non-high | High |
| | school | school | school | school |
| All Students | 75% | 65% | 67% | 78% |
| Lowest Performers | 53% | 61% | 84% | 18% |

A special focus of the new accountability system is on raising the performance of the lowest 25% of performers in the school or district. Every school will have a lowest 25% regardless of whether or not it has subgroups. Performance to determine the lowest 25% is calculated as the average scaled scores for the ELA and Math MCAS. The district's goal is to make sure the Lowest Performers group (at the high school and non-high school level) achieves at least 50% progress toward improvement targets every year, in order to close in on the achievement gaps.

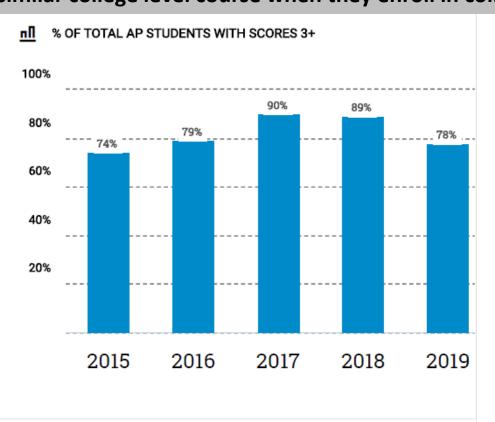
50% progress for the Lowest Performers.

| % Progress | Meaning |
|------------|------------------------------|
| 0-24% | Limited or no progress |
| 25-49% | Moderate progress |
| 50-74% | Substantial progress |
| 75%-100% | Meeting or exceeding targets |



Curriculum & Instruction: Student Outcomes – AP Performance

SY19-20 Goal: 80% of total Advanced Placement students will achieve a qualifying score of 3, 4, or 5. With a qualifying score on the AP test, students may be able to claim credit for a similar college level course when they enroll in college.



| SCHOOL SUMMARY | | | | | |
|---------------------------------------|------|------|------|------|------|
| | 2015 | 2016 | 2017 | 2018 | 2019 |
| Total AP Students | 270 | 281 | 291 | 309 | 343 |
| Number of Exams | 591 | 591 | 642 | 703 | 730 |
| AP Students with Scores 3+ | 200 | 221 | 261 | 275 | 266 |
| % of Total AP Students with Scores 3+ | 74.0 | 79.0 | 90.0 | 89.0 | 78.0 |

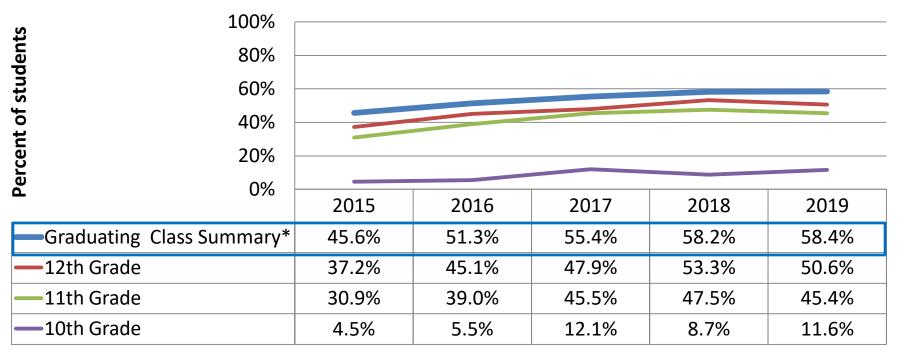
We have a policy of open enrollment, encouraging every junior and senior to take an AP course to gain experience with the level of rigor expected in higher education. We want to encourage as many students as possible to take advantage of this opportunity. The College Board has published many studies confirming that qualifying scores lead to higher achievement in subsequent college courses and to higher probability of graduating within four years.



Curriculum & Instruction: Student Outcomes – AP, Graduating Cohort

SY19-20 Goal: 60% of the graduating cohort will have achieved a qualifying score in at least one AP course.

Percent of students scoring a 3 or higher by grade

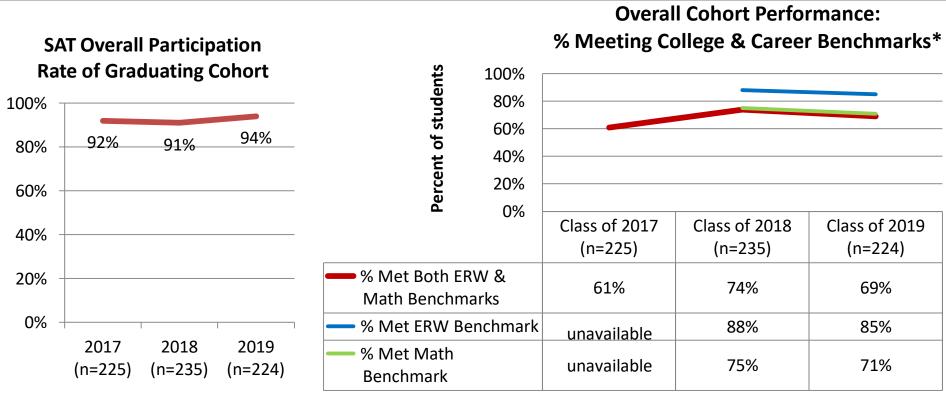


^{*}In this calculation, students who score a 3 or higher on an AP Exam are counted only once, regardless of how many AP Exams they took and were successful in. In addition, by showing the proportion of the overall population — not just the AP classroom — educators are better able to determine the extent to which their overall population is receiving access to advanced academics in high school.



Curriculum & Instruction: Student Outcomes – SAT, Graduating Cohort

SY19-20 Goal: 75% of the graduating cohort will meet the College and Career Readiness Benchmarks in both ERW & Math.

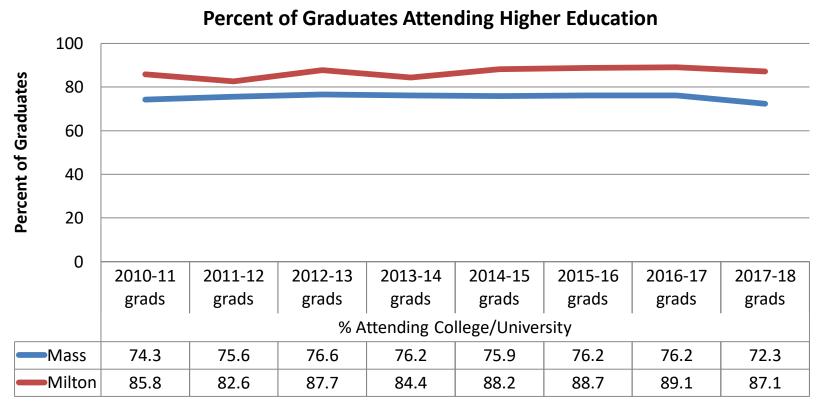


^{*}The College Board's SAT College and Career Readiness Benchmarks are the minimum SAT scores that studies show are necessary for students to be ready for college and career. Specifically, the benchmark score represents a 75% likelihood of a student achieving at least a "C" grade in a first-semester, credit-bearing college course in a related subject. Overall college and career readiness is defined as achieving both of the benchmarks – Evidence-based Reading and Writing (ERW) and Math. Performance in ERW is higher than Math for all students and subgroups.



Curriculum & Instruction: Student Outcomes – College Enrollment

SY19-20 Goal: Over 85% of MPS graduates have consistently enrolled in college (both 2 and 4-year colleges) over the years. We will aim for 90% as our goal.



The data presented here comes directly from the Department of Elementary and Secondary Education (DESE). It provides information about the enrollment of Massachusetts public high school graduates into institutions of higher education within 16 months of graduating high school. The source of higher education information is the National Student Clearinghouse, which receives data from more than 3,600 colleges, enrolling 98% of US college students.

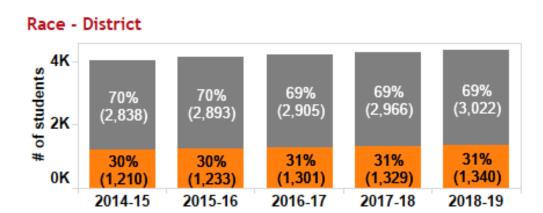


Cultural Competency: Equitable Access

- Our overall district goal to promote equitable access is to match the demographics of any program to that of the student population.
- We believe achieving this "demographic match" suggests equitable access to any given program.
- We recognize that access and achievement go hand in hand, in that we must make sure all students have equal access before they can have the opportunity to achieve.



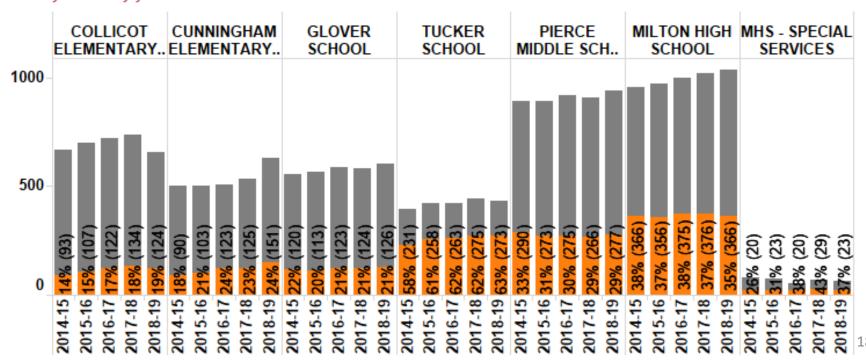
Student Demographic - Race Historical



Race Key White Of Color

Note: MHS Special Services include Special Education students who are Out of District (OOD) and the MHS pre-school program in years prior to 2016-17. In SY16-17, the data from the MHS pre-school program was migrated to MHS database.

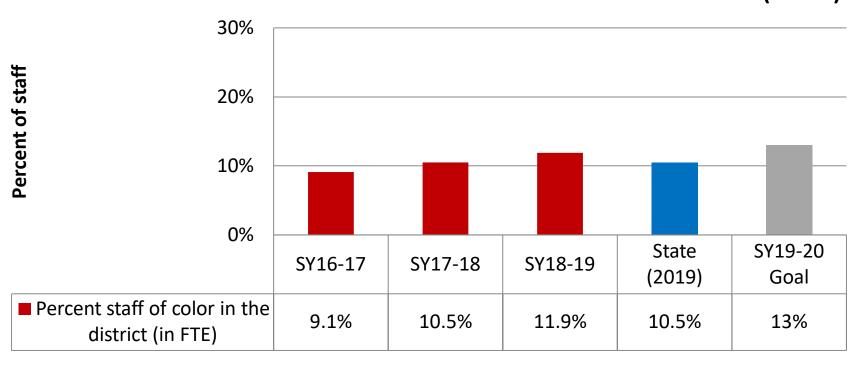
Race - by school by year





Cultural Competency: Equitable Access – Staff of Color

Percent staff* of color in the district (in FTE)



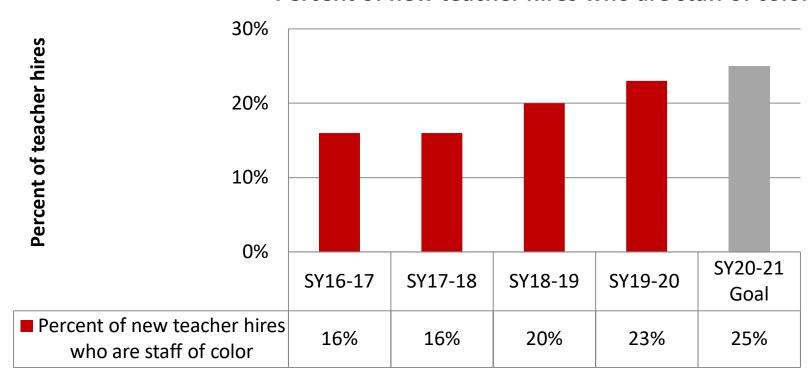
About 30% of our student body in the district are students of color (defined as anyone who identified themselves as non-white on our state reporting data). As such, we strive to replicate that same percentage in our staff to reflect the diversity of our student body. In Massachusetts, and nationwide, the challenge of recruiting and retaining diverse educators of color is well documented. Since 2009, that percentage has increased only 2% in Mass.

*Staff is inclusive of all teachers, aides, administrators, administrative assistants, tech support, Central Office staff, nurses, OT staff, guidance counselors, etc. It does not include custodial, food service, athletic, transportation or Community Schools personnel. FTE is full-time employee.



Cultural Competency: Equitable Access – New Teacher Hires

Percent of new teacher hires who are staff of color

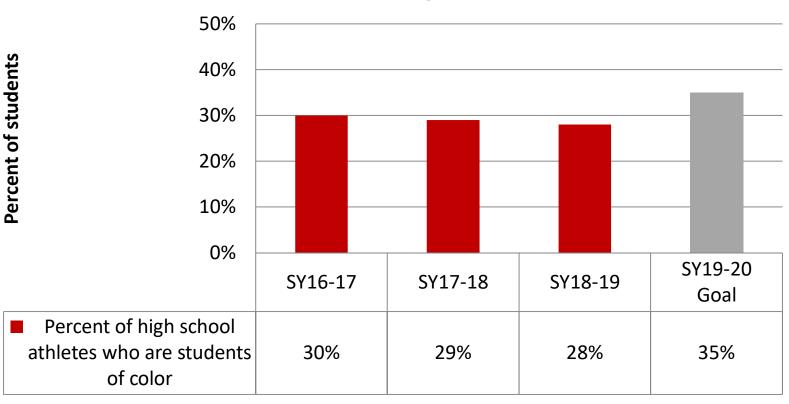


A body of research suggests that students of color who have at least one teacher of color may do better academically, and that white students also benefit as it disrupts their preconceived notions. In Milton, we aim to have our teacher population mirrors that of our student population as much as possible, and this goal will help us make some progress.



Cultural Competency: Equitable Access - Athletics





At the high school, 35% are students of color. This percentage fluctuates slightly every year, but 35% is the lowest level it's been in the past 5 years.



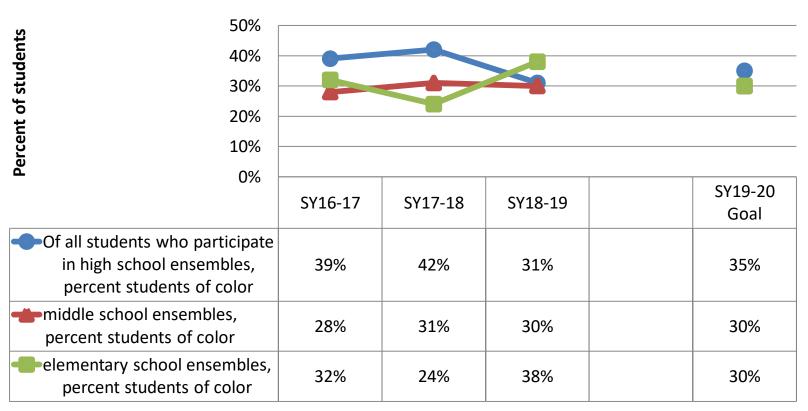
Cultural Competency: Equitable Access – Athletic Coaches

- At the high school, 35% are students of color. This percentage fluctuates slightly every year, but 35% is the lowest level it's been in the past 5 years.
- We recognize that in order to improve the participation of students of color in athletics, we may also have to increase the staff of color on the coaching staff.
- Starting this year, we will track the percentage of coaches of color as we hope to improve this percentage in subsequent years.
- For SY19-20, 14 out of 93 paid coaching positions (or 15%) are filled by coaches of color.
- Back in SY16-17, by estimate, we had 4 out of 87 paid coaches (or 5%) who were coaches of color.



Cultural Competency: Equitable Access – Performing Arts

Percent students of color in music ensembles*



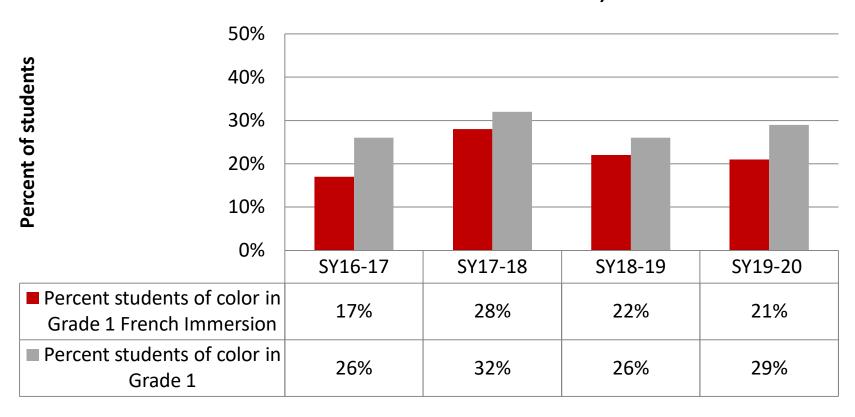
At the high school, 35% are students of color. This percentage fluctuates slightly every year, but 35% is the lowest level it's been in the past 5 years. District-wide, about 30% of our students are students of color.

^{*}include Band, Strings, and Chorus



Cultural Competency: Equitable Access – French Immersion

Grade 1 French Immersion, students of color



Although our Grade 1 students of color population fluctuates every year, we want to mirror that percentage as closely as possible in our elementary French Immersion program.



Social-Emotional Learning: Context

- Structure for formal data collection/reporting in this area is still under development
- Currently in place:
 - YRBS/YHS
 - Every Two Years (aligned with State administration)
 - Youth Risk Behavior Survey [YRBS] (all MHS students)
 - Youth Health Survey [YHS] (Grades 6 and 8)
 - SBIRT (Screening and Brief Intervention and Referral To)
 - Every Year, Grades 7 and 9
- Some Observations from the YRBS and YHS Data:
 - Rates of depressive symptoms are lower as compared to the State in Grade 6; on par with State in Grades 8, 9, 10, 11 & 12.
 - Rates of bullying are lower as compared to the State in Grades6, 9, 10, 11 & 12; on par with State in Grade 8.



Conclusion

- This "Strategic Data Dashboard" came together because as a district, we needed a comprehensive way to take stock of our collective work and initiatives.
- We will review and refine goals as needed based on the MPS Strategic Plan.
- Although this dashboard provides the big picture overview of the district's annual progress; more granular data is available in the appendix.