2020 Michigan Achieves! Indicators
WHAT IT IS
A telling indicator of whether Michigan’s students are being prepared for success is how well our young students read. The National Assessment of Educational Progress (NAEP) is the largest nationally representative assessment that provides for long-term comparisons of what America’s students know and can do in various subject areas. The assessment is given every two years and provides necessary information about student performance and growth for several indicators, including fourth-grade reading.

WHY IT MATTERS
Reading proficiency is tied to all kinds of academic and life outcomes, and improving early reading is much more cost-effective than intervening with older students, when they are many years behind in school or dropping out. Michigan must drastically improve its early literacy achievement for all students and close the achievement gaps that keep far too many of its low-income children and students of color from fulfilling their potential.

Michigan One of Eighteen States Declining in Early Literacy
Average Scale Score Change, NAEP Grade 4 – Reading – All Students (2003-19)

SOURCE: NAEP Data Explorer, NCES (Basic Scale Score = 208; Proficient Scale Score = 238), 2003-2019
Michigan in Bottom Ten for African American Students in Early Literacy
Average Scale Score, NAEP Grade 4 – Reading – African American Students (2019)

SOURCE: NAEP Data Explorer, NCES (Basic Scale Score = 208; Proficient Scale Score = 238), 2019

NOTE: All states with available data are included in this analysis.
**WHAT IT IS**
The National Assessment of Educational Progress (NAEP) is the largest nationally representative assessment that provides for long-term comparisons of what America’s students know and can do in various subject areas. The assessment is given every two years and provides necessary information about student performance and growth for several indicators, including eighth-grade math.

**WHY IT MATTERS**
In addition to basic reading skills, math skills are essential for all students. Basic algebra is the foundation for high-level math courses. When students have not mastered this foundation, they are required to enroll in remedial courses when they begin college. But eighth-grade math skills are not just for those students who are college-bound. A study conducted by ACT found that along with reading skills, math skills are essential for vocational jobs including those as a plumber, electrician or an upholsterer.¹

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**Michigan Eighth-Grade Students Show Little Improvement in Math Compared with Peers in Leading States**

*Average Scale Score Change, NAEP Grade 8 – Math – All Students (2003-19)*

<table>
<thead>
<tr>
<th>State</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tennessee</td>
<td>11.9</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>8.0</td>
</tr>
<tr>
<td>National Public</td>
<td>4.9</td>
</tr>
<tr>
<td>Michigan</td>
<td>3.8</td>
</tr>
</tbody>
</table>

*Source:* NAEP Data Explorer, NCES (Basic Scale Score = 262; Proficient Scale Score = 299), 2003-19

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¹. Adapted from ACT. (2017). *Assessment of the College and Career Readiness of High School Graduates*.
Michigan Among Bottom Ten States for African American Students in Eighth-Grade Math
Average Scale Score, NAEP Grade 8 – Math – African American Students (2019)

SOURCE: NAEP Data Explorer, NCES (Basic Scale Score = 262; Proficient Scale Score = 299), 2019
Michigan has recently made a smart investment in early childhood programs intended to increase the number of its students who enter kindergarten ready to learn at high levels. From 2012 to 2019, the portion of Michigan four-year-olds enrolled in prekindergarten increased from 19.4 percent to 32.0 percent. While access to prekindergarten is improving for Michigan’s four-year-olds, it is still unclear whether these prekindergarten programs are high-quality and aligned with the K-12 system.

Data are not currently available because Michigan has not yet implemented a common assessment of kindergarten readiness, nor does the state participate in a national effort to collect these data. Consistent and comparable data from a common assessment of kindergarten readiness would provide vital information on the impact of early-childhood programs and their effectiveness by evaluating their impact on student development and alignment with K-12 learning standards.

We will track any state or national data on Michigan’s kindergarten readiness when they become available.

From 2012 to 2019, the portion of Michigan four-year-olds enrolled in prekindergarten increased from 19.4 percent to 32.0 percent.
WHAT IT IS
Remedial coursework is necessary for students who lack fundamental skills in a subject area—skills that should have been developed in K-12. These courses also are not credit bearing, meaning they don’t count toward a degree.

WHY IT MATTERS
About 24 percent of all Michigan high school students were required to take at least one remedial course upon enrolling in one of Michigan’s two- and four-year college or university programs. That’s almost a quarter of students who must pay for additional instruction in college before moving on to credit-bearing courses. The percentage is even more startling for historically underserved subgroups—43.9 percent of Michigan’s African American students who enrolled in Michigan postsecondary programs are required to enroll in college remedial courses. Having to enroll in remedial courses can mean additional costs for students and more time to complete their degrees.

Remediation Rates Remain High for Michigan’s African American Students
Michigan African American College Remediation Rates (Community Colleges & Four-Year Universities)

SOURCE: Michigan Department of Education Remedial Coursework, 2012-18
NOTE: Remedial coursework includes math, reading, writing or science courses. Data is limited to Michigan high school graduates enrolled in college the following fall in a Michigan college or university only.
College and Postsecondary Enrollment

WHAT IT IS
This measure represents the percentage of high school graduates in each state who attend college anywhere in the U.S. directly from high school.

WHY IT MATTERS
In order for Michigan’s students to fulfill their true potential and be the leaders of tomorrow, more must enroll in postsecondary training, whether that be at a trade school, community college or a four-year university. On this measure, Michigan is slightly below the national average, ranking 26th, with about 61.5 percent of high school graduates attending some form of postsecondary training in the 2011-12 school year.

The state department of education reports that 64.4 percent of Michigan’s 2018 high school graduates enrolled in a postsecondary program within 12 months of graduation.iii

Michigan Slightly Below National Average with 61.5% of High School Graduates Enrolling in College
Higher Education Enrollment Rate for Recent High School Graduates

SOURCE: National Center for Education Statistics, Digest of Education Statistics, Table 302.50, 2011-12
What It Is
This indicator represents the percentage of people 25 years or older in each state and nationally who have completed a bachelor’s degree or greater.

Why It Matters
In 2018, Michigan ranked 32nd in the percentage of adults 25 or older who have completed a bachelor’s degree or greater, at 29.6 percent. Roughly 17.6 percent of African American and 19.5 percent of Latino Michiganders have completed a bachelor’s degree or greater.

Michigan’s Economy Depends on More Adults Earning College Degrees
Percent of People 25 Years and Older with a Bachelor’s Degree or Greater in 2018

Source: United States Census – American Community Survey – 1 Year Estimates, 2018
Without a doubt, student learning is dependent on many factors. But, the research is clear—the number one in-school predictor of student success is the teaching quality in a child’s classroom. In leading states, sophisticated data systems provide teaching effectiveness data that are used for many purposes, such as professional development and early student interventions. In Michigan, those data are unavailable at this time.

**The Effect of Teacher Quality on Student Learning**

![Diagram of student performance by age and teacher effectiveness]

**SOURCE:** Sanders and Rivers (1996): Cumulative and Residual Effects of Teachers on Future Student Achievement

**NOTE:** *Among the top 20% of teachers; **Among the bottom 20% of teachers*

Analysis of test data from Tennessee showed that teacher quality affected student performance more than any other variable; on average, two students with average performance (50th percentile) would diverge by more than 50 percentile points over a three year period depending on the teacher they were assigned.
Access to Rigorous Coursework

**WHAT IT IS**
Access to rigorous coursework is measured by the College Board Advanced Placement (AP) Program Participation and Performance data. The data represent the total number of AP exams administered per 1,000 11th and 12th grade students.

**WHY IT MATTERS**
One of the best ways to ensure more students are college- and career-ready is to increase access to rigorous coursework in high school, such as Advanced Placement courses. Research shows that having access to rigorous coursework and high quality instruction in high school is one of the best predictors of postsecondary success. Michigan is currently ranked 28th for the total number of AP exams administered per 1,000 11th and 12th graders.

**Michigan Has Seen a Steady Increase in AP Exam Participation, but Still Lags Nation**

AP Exam Participation

[Graph showing AP Exam participation from 2004 to 2019 for the nation and Michigan, with a steady increase for both, but Michigan still lagging behind the nation.]

**SOURCE:** College Board AP Program Participation and Performance Data, 2004-19
WHAT IT IS
This measure represents how the highest and lowest poverty districts are funded based on state and local revenues and whether it is equitably distributed or not.

WHY IT MATTERS
Michigan ranks in the bottom five states nationally for funding gaps that negatively impact students from low-income families. On average, Michigan spends about 5 percent less in its highest poverty districts than its lowest poverty districts. This lack of equity can lead to further imbalances in our educational system as a whole.

Michigan is One of Only Sixteen States Providing Less Funding to Highest Poverty Districts than to Lowest Poverty Districts
Funding Gaps Between the Highest and Lowest Poverty Districts, By State

READING THIS FIGURE: In Utah, the highest poverty districts receive 21 percent more in state and local funds per student than the lowest poverty districts (not adjusted for additional needs of low-income students). In states shaded in green, the highest poverty districts receive at least 5 percent more in state and local funds per student than the lowest poverty districts; in states shaded in maroon, they receive at least 5 percent less. Grey shading indicates similar levels of funding for the highest and lowest poverty districts. Note that although all displayed percentages are rounded to the nearest percentage point, states are ordered and classified as providing more or less funding to their highest poverty districts based on unrounded funding gaps.

SOURCE: The Education Trust, Funding Gaps Report, 2018

NOTE: Hawaii was excluded from the within-state analysis because it is one district. Nevada is excluded because its student population is heavily concentrated in one district and could not be sorted into quartiles. Alaska is excluded because there are substantial regional differences in the cost of education that are not accounted for in the ACS-CWI. Because so many New York students are concentrated in New York City, we sorted that state into two halves, as opposed to four quartiles. Though included in the original publication, data from Ohio are now excluded from this chart because of subsequently discovered anomalies in the way Ohio reported its fiscal data to the federal government.
## Teacher Salary Equity

### WHAT IT IS
This measure represents the gap in average teacher salaries between Michigan’s highest income and lowest income districts.

### WHY IT MATTERS
Teachers in Michigan’s wealthiest districts are paid about $10,000 more, on average, than teachers in Michigan’s poorest districts. That’s alarming, considering what we know about the importance of high-quality teachers in closing the achievement gap that persists between low-income and higher-income students.

To recruit and retain highly effective teachers in the schools that need them most, Michigan must close the gap in teacher pay.

### $10,000 Gap in Average Teacher Salaries Between Michigan’s Highest Income and Lowest Income Districts

Average Michigan Teacher Salary based on Percent of Free and Reduced Price Lunch

<table>
<thead>
<tr>
<th>Percent of Districts’ Students Who Qualify for Free or Reduced Price Lunch</th>
<th>Average Teacher Salary</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-20%</td>
<td>$66,866</td>
</tr>
<tr>
<td>20-40%</td>
<td>$66,032</td>
</tr>
<tr>
<td>40-60%</td>
<td>$59,425</td>
</tr>
<tr>
<td>60-80%</td>
<td>$59,828</td>
</tr>
<tr>
<td>80-100%</td>
<td>$56,810</td>
</tr>
</tbody>
</table>

*Source: MDE Bulletin 1011, 2018-19; MDE Free and Reduced Priced Lunch, Fall 2018-19 (District)*
**Teacher Attendance**

**WHAT IT IS**

This measure represents the percent of teachers absent from work for more than 10 days over the course of one school year at the state level.

**WHY IT MATTERS**

According to a recent report from *Education Week*, about 26 percent of teachers in Michigan were absent from their job more than 10 days, on average.¹ That’s about six percent of the school year, which is equivalent to a typical 9-to-5 year-round employee missing more than three weeks of work on top of vacation time.

About 26% of Teachers in Michigan Were Absent from Their Job More than 10 Days

Average Percentage of Teachers Absent More than 10 Days

**SOURCE**: Education Week, “How Many Teachers Are Chronically Absent From Class in Your State?,” 2018, Civil Rights Data Collection, 2015-16
Student Attendance

WHAT IT IS
This measure represents the number of eighth-graders absent three or more days in the last month based on the National Assessment for Educational Progress (NAEP).

WHY IT MATTERS
Not only are Michigan’s teachers missing too much school, but Michigan’s students—especially African American students—are missing far too many days of school, often against their will due to disproportionate rates for out-of-school suspensions. According to the 2019 national assessment, 23 percent of Michigan’s eighth-grade students said they had been absent from school three or more days in the last month. Moreover, Detroit leads the nation for absences among urban districts, with 41 percent of students absent three or more days in the last month.

Nearly One Quarter of Michigan Eighth Graders were Absent 3 or More Days in Last Month in 2019
Percent of Eighth Graders Absent Three or More Days in Last Month, NAEP Grade 8 – Math – All Students (2019)

SOURCE: NAEP Data Explorer, NCES (Reported for 8th Grade Math), 2019
NOTE: AK, CO, MT, NH, SD and UT are not included in the analysis because data was not available.
Out-of-School Suspensions

WHAT IT IS
Data from the Civil Rights Data Collection measure discipline rates nationally.

WHY IT MATTERS
One of the most troubling practices in Michigan—and around the country—is the overuse of suspension and expulsion, particularly for students of color. Overall Michigan ranks 45th. For African American students, Michigan has the fourth highest out-of-school suspension rate in the country. Twenty percent of the African American students in Michigan schools were suspended in the 2013-14 school year.

Michigan Has 4th Highest Out-of-School Suspension Rate Nationally for African American Students

African American Out-of-School Suspension Rates

SOURCE: Civil Rights Data Collection, 2013-14
College Affordability

WHAT IT IS
This indicator measures the affordability of four-year public institutions by state for an average Pell Grant recipient who lives on campus, receives the average amount of grant aid, takes out the average amount of federal loans and works over the summer. Data represent the additional dollars needed to cover the cost of attendance.

WHY IT MATTERS
It’s not enough to get into college. Young Michiganders have to be able to afford to stay in school and graduate. On average, a low-income Michigan student paying in-state tuition at a four-year public institution, who lives on campus and works over the summer, faces a $1,659 affordability gap. This means that despite financial aid and summer wages a low-income student still falls $1,659 short, on average, of being able to afford Michigan’s four-year public institutions. Michigan is currently ranked 29th for college affordability. Additionally, a recent report by The Education Trust found that low-income students would need to work 20 hours per week at minimum wage to afford Michigan’s public four-year institutions. Low-income students at Michigan’s community and technical colleges would need to work 11 hours per week at minimum wage. Both figures exceed the recommended 10 hours per week of work—and if students worked only 10 hours at minimum wage they would face a $4,595 and $425 affordability gap at public four-year institutions and public community and technical colleges, respectively. vii
Low-Income Students Fall Short $1,659, On Average, of Affording the Cost of Attending Michigan Four-Year Public Institutions

Four-Year Public Institution Affordability Gaps for In-State Students Living On Campus with Summer Work

To ensure the highest quality data available and up-to-date resources are used, the data sources used to track some Michigan Achieves! Indicators have been updated over time.


3 Michigan Department of Education, College Enrollment by High School 2017-18


