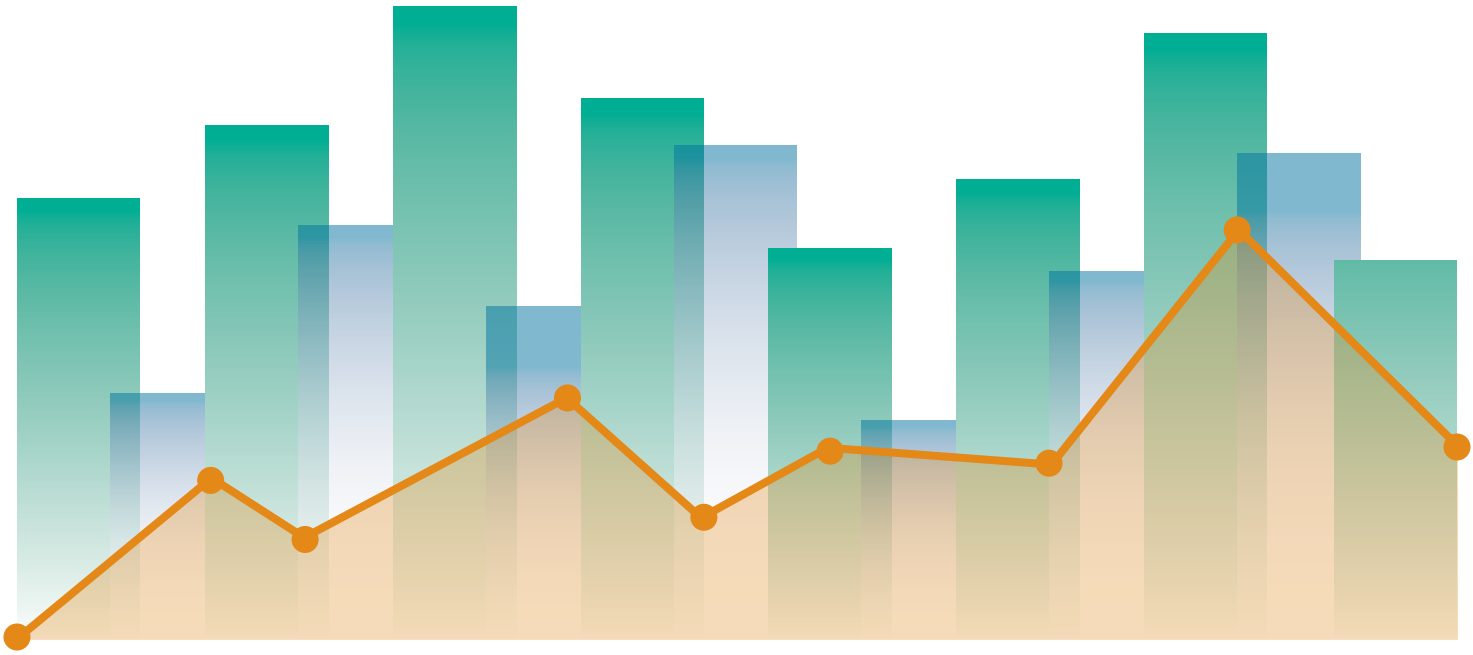
MICHIGAN Department of Education

TOP 10 IN 10 YEARS
putting Michigan on the map as a premier education state

Michigan School Index Results

Policy Considerations and Long-Term Educational Goals



STATE OF MICHIGAN
DEPARTMENT OF EDUCATION
LANSING

GRETCHEN WHITMER
GOVERNOR

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INTERIM STATE SUPERINTENDENT

July 2019

Greetings,

I am pleased to share this review of the first two years of the School Index System conducted by the Michigan Department of Education, detailing statewide results for the 2016-17 and 2017-18 school years.

With the adoption of Michigan's strategic plan to become a Top 10 education state in 10 years and the development of Michigan's Consolidated State Plan for the federal Every Student Succeeds Act (ESSA), Michigan has set a high bar for success. It is essential that we continue to monitor progress towards the goals established in those plans. Many of the measures of academic success can be found in the School Index System, which is Michigan's approved method to meet federal accountability requirements.

As the report details, Michigan still has work to do to achieve the Top 10 in 10 and ESSA goals. Analysis of the index data to identify specific areas where improvement is needed will enable state and local policy-makers to better direct resources towards efforts that will produce that improvement. This School Index Report shows that results for certain student groups (particularly students with disabilities, economically disadvantaged students, and black or African American students) will need concentrated support efforts in order to increase performance.

As was outlined in the January 2018 report of the Michigan School Finance Research Collaborative, additional investments are required to effectively provide services to groups of students requiring additional intervention. If our goal is to improve student outcomes, then improved investments are required. To make this happen, Michigan must invest strategically to support the schools and student populations that need it most. This School Index Report data is a starting point to aid in focusing those efforts. I encourage policymakers to view the report as a motivating call to action to provide the necessary supports and services to schools and the students they serve.

Sincerely,

Sheila A. Alles
Interim State Superintendent

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Introduction

The following white paper reviews the first two years of the Michigan School Index System results in the context of Michigan's Top 10 Education State in 10 Years plan, an effort at making Michigan one of the top ten states in educational performance in the United States by 2025-26. This review is accomplished by analyzing Michigan School Index System results through the lens of the metrics the Michigan Department of Education (MDE) set forth to measure Top 10 in 10 progress – specifically, exit readiness, equity, and efficacy. This paper provides summary data alongside useful takeaways, and seeks to ask whether Michigan is building systems to meet Top 10 in 10 goals. This white paper is intended as a starting point for public policy discussion; MDE believes further analysis is required to make any definitive policy decisions.

The Michigan School Index System is intended to reflect the principles, goals, and strategies in the Top 10 in 10 and was specifically developed to comply with the accountability requirements outlined in the Every Student Succeeds Act of 2015 (ESSA)[1]. This white paper details the statewide results for the Index system in 2016-17 and 2017-18 in the context of Michigan's broader, long-term educational goals. **While there are some positive results indicated by data from the first two years of the Index system, the overall narrative shows Michigan may not be on track to meet some of the ambitious student performance policy goals detailed in the Top 10 in 10 and Michigan's Consolidated State Plan. From this viewpoint, the Index appears to show that while strides have been made in efficacy, such work must intensify and expand, as outcomes on exit ready and equity measures have stagnated instead of showing the aggressive gains Michigan needs to meet its Top 10 in 10 goal by 2025-26.**

Michigan's school accountability system (School Index) is aligned to the principles, goals, and strategies in the Top 10 in 10 strategic plan, as formally detailed in Michigan's approved Consolidated State Plan under ESSA. In Michigan's Top 10 in 10 and ESSA plans, data and accountability are to be used to help drive resources and to focus improvement activities for students and educators. The plan also seeks to reduce the impact of high-risk factors, including poverty, and to provide equitable resources to meet the needs of all students, to ensure they have access to quality educational opportunities. Finally, the Top 10 in 10 strategic plan details the implementation of an assessment and accountability system that reduces the impact of high-risk factors while helping ensure equitable resources. This includes a state accountability and support system that focuses on transparency and high standards of accountability for all schools, and that holds schools accountable for closing achievement gaps, while dramatically improving systems of support and capacity-building for struggling and chronically low-performing schools[2].

[1] Michigan's Consolidated State Plan under ESSA can be viewed at https://www.michigan.gov/essa

[2] Detailed information on Michigan's Top 10 in 10 strategic plan can be found at https://www.michigan.gov/top10in10

The Michigan School Index System's long-term goals and measures of interim progress are intended to support Michigan's Top 10 in 10 strategies as well as ESSA principles of reducing achievement gaps, since all students and each student group have the same long-term goals and measures of interim progress. Michigan's long-term goal is to raise the statewide averages to meet the 2016-17 statewide proficiency rates at the 75th percentile in English language arts and mathematics by the end of the 2024-25 school year, to coincide with the plan timeline. Michigan's goals are ambitious, reflecting challenging standards, and are realistic in the expectation for continual academic improvement to proficiency. The system seeks to balance accuracy and simplicity and be valid and reliable. The system has seven components, each based on a 0-100 point percentage of long term goal-met index. These components cover the five indicators required under ESSA, as well as the separate participation requirements for content areas assessments and the English language proficiency assessment.

The Index system allows users to identify a school's strengths and weaknesses in a range of areas recognized as valuable to evaluate by the education community and considered to be meaningful and actionable improvement mechanisms [3]. The Index system is not a raw measure, but rather uses a percent of target met concept to determine to what degree a school has met targets. This approach allows for a more detailed view of a school's performance in comparison to more binary met/not met targets used in past accountability systems. Areas included in a school's Index may include student assessment data, graduation rates, attendance rates, completing advanced coursework, postsecondary enrollment, and staffing ratios. The Index system derives an Index value based on the percentage of the targets a school attains. Schools receive an overall Index value based on the areas defined above in which they have data, as well as an Index value for each applicable student group in each available area, based on the percentage of target met concept. Index values can range from zero to 100. Schools with low Index values are identified as one of three low-performing school types according to federal requirements specified in ESSA. The Index is only one potential tool for measuring Top 10 in 10 goals; other measures, such as program inputs, could be considered in order to comprehensively review Michigan's academic progress in the Top 10 in 10.

Michigan's Top 10 in 10 includes six measurement areas[4], which are high-level metrics intended to gauge long-term progress towards Top 10 in 10 objectives[5]. These measurement areas are:

- Early Learning
- Exit Ready
- Engagement
- Effective Educators
- Equity
- Efficacy

[3] Detailed information on the Michigan School Index can be found at the Index System Resources for Schools webpage at https://www.michigan.gov/mde/0,4615,7-140-81376_59490-251853--,00.html

[4] This paper only examines some of the Top 10 in 10 measurement areas, not all of the measurement areas.

[5] MDE will be transitioning to new Top 10 in 10 metrics in the upcoming year.

For the purposes of this white paper, the Index system results are evaluated in the context of three of the Top 10 in 10 measurement areas: Exit Ready, Equity and Efficacy. These three measurement areas were chosen because they are the measurement areas most closely aligned with our existing accountability metrics. Exit Ready metrics address outcomes for learners as they leave the grades P-12 system into post-secondary learning and careers. Equity metrics examine inputs, factors, and outcomes that ensure equitable opportunities for learning and teaching, and illustrate the equitable provision of services and supports across the state. Efficacy metrics evaluate the ability of Michigan's educational infrastructure to impact student outcomes and support implementation of strategies to ensure intended outcomes for learners.

Key Index System Results

The overall Index results from 2016-17 and 2017-18 can be summarized with the following takeaways:

- The Index system is significantly improved from past accountability systems, though there are system components that can be further improved.
- Overall Index results are stagnant, particularly in three of the six Top 10 in 10 measurement areas: Exit Ready, Equity and Efficacy.
- The areas in which schools are most in need of further support are student academic growth and proficiency.
- The student group most in need of further support is the Black or African American student group, and the challenges cannot be explained by cross-effects with poverty or gender.
- The schools most in need of further support are Partnership District schools included in partnership agreements. However, even Partnership District schools not included in the Partnership agreements meaningfully underperform against non-partnership schools, which confirms MDE's policy that supports need to be identified to schools and to their parent districts.
- Other school types, including alternative schools, virtual schools, charter schools, small schools, and Special Education centers, demonstrate a need for supports to improve student performance, but have a lesser impact on overall statewide student achievement due to their enrollment of smaller numbers of students.

The School Index system is an improved system relative to previous school accountability systems. It includes data for more schools and identifies significantly fewer schools for required supports, allowing supports for school improvement to be more focused. The School Index's "percent of target met" concept is an improvement from previous "all or nothing" performance concepts, as it provides proportional credit for progress toward meeting targets. Finally, the School Index system has addressed the previous

issue of schools with more student groups being disadvantaged relative to schools with fewer student groups, as the first types schools previously had more chances not to meet targets than those with fewer student groups.

Analysis of Overall Index Results: Years One and Two

School Counts

The count of school buildings included in the School Index system over its two-year run has remained consistent, showing only a small decrease in the number of included schools. This is expected, since Michigan is a state with minimal overall population growth, relatively limited school expansion, and consistent annual declines in student population, averaging roughly 10,000 fewer students statewide. The stability also reflects relative consistency in building counts over time, across differing statewide accountability systems. In the 2015-16 academic year, under the Scorecard system, 3,195 buildings were included; in 2017-18, under the School Index system, 3,405 buildings were included. In addition to complying with federal legislation and state policy, the Index system is designed to maximize inclusion of all schools with applicable data, mainly through the use of metrics that go beyond student testing. Not only does the School Index provide more data to more schools, it provides data at more levels than past systems,[6] which is in part a result of public feedback raised during previous accountability systems.

Count of Buildings Included by Accountability System

Academic Year	System	Number of Buildings
2015-16	Top-to-Bottom	2,715
	Scorecards	3,195
2016-17	Index	3,435
2017-18	Index	3,405

Mean and Median Results

Over the first two years of the School Index system, the overall statewide average and median Index has declined slightly, from 66 to 64 and from 72 to 70, respectively. The declines were most pronounced in lower performing schools [7]. This follows the slight performance decline in Michigan Student Test of Educational Progress (M-STEP), the state's primary summative

[6] The School Index added metrics for Component Overall, Student Group Overall and Student Group/ Component Overall.

[7] See Appendix A for distributions of overall building index values.

assessment. Since M-STEP student growth and student proficiency results are heavily weighted in the calculation of School Index system results, these results reflect the decline observed in M-STEP results alone. When considering index components with the lowest average index values, growth and proficiency are the areas in most need of support and improvement, which aligns with the policy that these components are the most heavily weighted or valued in the School Index system. School Quality[8], discussed in the Exit Ready section of this paper, also showed some modest declines, most notably due to declines in "On Track Attendance" (i.e., increases in chronic absenteeism). There were some modest gains in 11th and 12th grade Advanced Coursework results.

School Index Overview Statistics Counts, Means & Medians

Academic Year	Number of Schools	Mean Index	Median Index
2017-18	3,405	64	70
2016-17	3,435	66	72

Student Groups Comparison

Among student groups in the first two years of the School Index system, the Asian student group had the highest average and median Index results[9]. The Asian student group had average and median results of 95.3 and 99.8 respectively in 2016-17, and average and median results of 93.7 and 99.2 respectively in 2017-18. No other student group had similarly high average or median performance in either year; the next highest groups were Two or More Races, White, Hispanic or Latino, English Learners, and American Indian or Alaska Native.[10] The Asian student group comprises roughly three percent of the statewide public school population — a relatively small, though growing, share of overall student population.

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[8] School Quality/Student Success Index component is a combination of up to five subcomponents, including K-12 percent not chronically absent (students with on-track attendance), K-8 student access to arts/physical education, K-8 student access to librarians/media specialists, 11/12 advanced coursework (students completing advanced coursework through Advanced Placement, International Baccalaureate, Early/Middle College, dual enrollment pathways) and postsecondary enrollment (students enrolling in postsecondary institutions within 12 months of graduation).

[9] A student group is comprised of at least 30 students.

[10] Michigan's school demographics can be found at https://www.mischooldata.org/DistrictSchoolProfiles2/StudentInformation/StudentCounts/StudentCount.aspx

Student Groups Comparison Number, Percent, and Average Index by Demographic Reporting Group

Student Group	Academic Year	Number of Buildings	Percent of Building	Average Index	Median Index
Asian	2016-17	387	11%	95.3	99.8
	2017-18	388	11%	93.7	99.2
Two or More Races	2016-17	637	19%	82.7	87.4
Two or More Races	2017-18	723	21%	79.3	84.6
White	2016-17	2,961	86%	81.1	87.3
	2016-18	2,930	86%	78.7	85.6
Hispanic or Latino	2016-17	1,073	31%	77.1	83.2
Hispanic or Latino	2017-18	1,090	32%	74.6	79.3
English Learners	2016-17	772	22%	73.6	78.6
	2017-18	790	23%	71.9	76.4
American Indian or Alaska Native	2016-17	47	1%	74.8	77.8
American Indian or Alaska Native	2017-18	44	1%	67.7	73.6
All Students	2016-17	3,435	100%	68.2	75.2
	2017-18	3,405	100%	66.0	72.9
Students with Disabilities	2016-17	2,690	78%	67.7	69.4
Students with Disabilities	2017-18	2,695	79%	64.6	65.6
Overall	2016-17	3,435	100%	66.3	71.9
	2017-18	3,405	100%	64.1	69.7
Economically Disadvantaged	2016-17	3,185	93%	65.6	67.7
Economically Disadvantaged	2017-18	3,210	94%	63.3	65.5
Native Hawaiian or Pacific Islander	2016-17	1	0%	64.0	64.0
	2017-18	1	0%	58.8	58.8
Black or African American	2016-17	1,361	40%	57.8	56.0
Black or African American	2017-18	1,355	40%	54.3	51.8

The student group most in need of further support is the Black or African American student group. This is the student group with the lowest average Index value and showing the greatest year-over-year decline in average Index value. The overall average Black or African American Index value is lower performing than the bottom 25 percent of White students, and the overall results are not sufficiently explained by considering the cross-effects of poverty and gender. In the first two years of the School Index system results, when compared to other student groups, the Black or African American student group had the lowest average and median Index results. Statewide, the Black or African American student group had average and median results of 57.8 and 56.0 respectively in 2016-17, and average and median results of 54.3 and 51.8 respectively in 2017-18. The African

American student group comprises roughly 18 percent of the statewide student public school population, a relatively large share of overall student population, and this student group has a relatively large impact on overall statewide Index results. The next lowest student groups were Native Hawaiian or Pacific Islander, Economically Disadvantaged, Overall, Students with Disabilities, and All Students, respectively. Schools with more student groups tend to have higher overall Index scores than those with fewer student groups, though this is largely a result of smaller schools including many lower-performing school typologies, such as alternative schools [11].

Grade Bands Comparison

Average Index values vary by grade ranges. That is, schools sharing common grade levels have differing average Index values compared to schools that do not share common grade levels, with elementary grade ranges generally having higher average Index values than middle and high school grade ranges. Additionally, the average Index values by grade range declined from 2016-17 to 2017-18. The average overall School Index for K-2 (primary) grades was 72 in 2016-17 and 70 in 2017-18[12], and the average overall Index for 3-5 (elementary) grades was 70 in 2016-17 and 68 in 2017-18. This is a significant contrast to the overall Index for 6-8 (middle school) grades, which was 59 in 2016-17 and 56 in 2017-18. Moreover, the overall Index declined further for 9-12 (high school) grades— it was 56 in 2016-17 and 53 in 2017-18. These Index results suggest that higher grade levels may have deeper performance challenges than lower grade levels. Michigan's alternative schools serve particularly challenging student populations, primarily in the high school grade ranges, and these schools' performance negatively affects the overall high school grade level performance. Policy makers might consider whether these differing results indicate the educational system is operating as intended and the Index is simply picking up greater challenges and greater unmet need in schools serving higher grades, or whether such schools face similar challenges as schools serving lower grades, and have similar levels of unmet need, indicating the educational system is not operating as intended. That is, policy makers may wish to further examine whether Michigan's educational system has a built-in expectation of declining results in higher grade levels, and, if this is not the case, how the system can be reformed to better meet the challenges of higher grades.

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[11] Appendix B details student group correlations to overall building Index.

[12] The year-over-year decline in statewide K-2 Index performance can be explained by the statewide overall rise in Chronic Absenteeism.

Grade Bands Average Overall Building Index

Grade Band	2016-17			2017-18		
	Number of Buildings	Percent of Building	Average Index	Number of Buildings	Percent of Buildings	Average Index
Primary (K-2)	1,830	53.3%	72	1,824	53.6%	70
Elementary (3-5)	1,937	56.4%	70	1,924	56.5%	68
Middle (6-8)	1,536	44.7%	59	1,515	44.5%	56
High (9-12)	1,208	35.2%	56	1,212	35.6%	53
Unknown	10	0.3%	35	9	0.3%	29
All Grades	3,435	100.0%	66	3,405	100.0%	64

Considering only non-alternative schools, the grade-band-based average Index changes, particularly for high schools. Primary, elementary, and middle schools have largely unchanged Index values over the two years the School Index was calculated, as there are few alternative schools with such grade bands. With alternative schools excluded from the calculation, middle schools and high schools have roughly similar average Index values. The average overall middle school building Index was 61 and 59 for 2016-17 and 2017-18, respectively; the average overall high school building Index was 63 and 60. When alternative schools are included in the overall index value average, the high school grade band has a lower overall Index value average because alternative schools are typically lower performing.

Grade Bands, Filtered to Remove Alternative Schools

School Type	Grade Band	2016-17			2017-18		
		Number of Buildings	Percent of Building	Average Index	Number of Buildings	Percent of Buildings	Average Index
Non-Alternative School	Primary (K-2)	1,817	52.9%	72	1,807	53.1%	70
	Elementary (3-5)	1,921	55.9%	71	1,905	55.9%	69
	Middle (6-8)	1,446	42.1%	61	1,422	41.8%	59
	High (9-12)	1,001	29.1%	63	995	29.2%	60
	Unknown	10	0.3%	35	9	0.3%	29
	All Grades	3,225	93.9%	69	3,185	93.5%	67

Top 10 in 10: Exit Ready Metric

Index Component Results

The results of the individual Index components can be interpreted as a rough proxy for whether Michigan's children are progressing toward exiting K-12 education ready for post-secondary learning and careers, as described by the Top 10 in 10 Exit Ready metric[13]. The statewide school Index results were largely stagnant, both overall and for each component measured by the system except English Learner Progress. This stagnancy indicates Michigan is not increasing the number of students on track to exit the PK-12 education system ready for post-secondary learning and careers, a key element needed to meet the Top 10 in 10 goal. The areas most in need of support are growth and proficiency, as these have by far the lowest mean index values. In addition, there is a disconnect in that many high schools with low growth and proficiency still have high graduation rates. This shows a tension between potential exit ready measures and suggests that a broader analysis of Michigan's graduation standards and their relationship to Top 10 in 10 is warranted. Graduation rates were virtually unchanged over the first two years of the Index but remain relatively high, with a median Index value of around 90 for both years. English Learner Progress improved slightly, probably due to a calculation change to provide more individualized and accurate growth targets. Participation on state tests, both for core subjects and English language acquisition, continues not to be an area of concern, as most schools test 95 percent or more of eligible students.

Component Counts, Percents & Means

Component	2016-17			2017-18		
	Number of Buildings	Percent of Buildings in this Section	Mean Index	Number of Buildings	Percent of Buildings in this Section	Mean Index
Overall	3,435	100%	66	3,405	100%	64
Growth	3,094	90%	63	3,068	90%	59
Proficiency	3,252	95%	61	3,223	95%	59
School Quality and Student Success	3,328	97%	79	3,297	97%	75
Graduation Rate	1,004	29%	73	1,005	30%	73
English Learner Progress	558	16%	74	596	18%	79
Subject Test Participation	2,913	85%	99	2,877	84%	99
English Learner Test Participation	727	21%	98	745	22%	99

[13] More information on the Top 10 in 10 Exit Ready metric, and all Top 10 in 10 metrics, can be found at https://www.michigan.gov/documents/mde/Six_E_Metrics_-_Online_Version_606551_7.pdf

The School Quality and Student Success (SQSS) subcomponents also generally display unchanged or slight declines in year-over-year Index results. The largest SQSS decline is in the Percent Not Chronically Absent subcomponent, which is concerning given the importance of student attendance as a factor in overall student outcomes. Within SQSS, there was a slight increase in the successful completion of advanced coursework and a slight decrease in post-secondary enrollment. These two subcomponents are additional useful indicators of progress towards the Exit Ready metric, although the results to date indicate that stronger annual progress is needed to meet the Top 10 in 10 objectives.

School Quality and Student Success (SQSS)
Subcomponents Comparisons Counts, Percents & Means

Component	2016-17			2017-18		
	Number of Schools	Percent of Schools	Mean Index	Number of Schools	Percent of Schools	Mean Index
School Quality and Student Success	3,328	97%	79	3,297	97%	75
Percent Not Chronically Absent	3,312	96%	84	3,280	96%	80
K-8 Access: Arts/PhysEd	2,494	73%	69	2,475	73%	69
K-8 Access: Librarian/Media Specialist	2,494	73%	21	2,475	73%	21
Advanced Coursework	926	27%	53	941	28%	54
Postsecondary Enrollment	659	19%	80	666	20%	78

Top 10 in 10: Equity Metric

Black or African American Student Group

As previously discussed, the School Index shows large inequities across student groups, particularly for Black or African American students. This section focuses on the Black or African American student group and gauges this student group's performance in the context of the top 10 in 10 Equity metric, which, among other provisions, advocates for equitable opportunities for learning and the equitable provision of services and supports. The Index results indicate that the Black or African American student group is most in need of further supports. It has been the lowest performing student group for both Index years and saw larger year-over-year declines than most other Index student groups. Its lower Index performance is not explained by cross-effects with economically disadvantaged status; that is, even though the Black or African American student group has a higher share of Economically Disadvantaged (ED) students, that status does not explain the significantly lower overall Index performance.

Student Groups Component Counts, Percents & Means

Component	Academic Year	Black or African American			White		
		Number of Schools	Percent of Schools	Mean Index	Number of Schools	Percent of Schools	Mean Index
Overall	2016-17	1,361	40%	58	2,961	86%	81
	2017-18	1,355	40%	54	2,930	86%	79
Growth	2016-17	736	21%	42	2,224	65%	82
	2017-18	735	22%	37	2,176	64%	79
Proficiency	2016-17	875	25%	37	2,390	70%	83
	2017-18	871	26%	35	2,368	70%	81
School Quality and Student Success	2016-17	1,358	40%	74	2,960	86%	87
	2017-18	1,355	40%	69	2,930	86%	85
Graduation Rate	2016-17	202	6%	80	613	18%	88
	2017-18	204	6%	80	611	18%	88
Subject Test Participation	2016-17	923	27%	98	2,439	71%	99
	2017-18	909	27%	99	2,416	71%	99

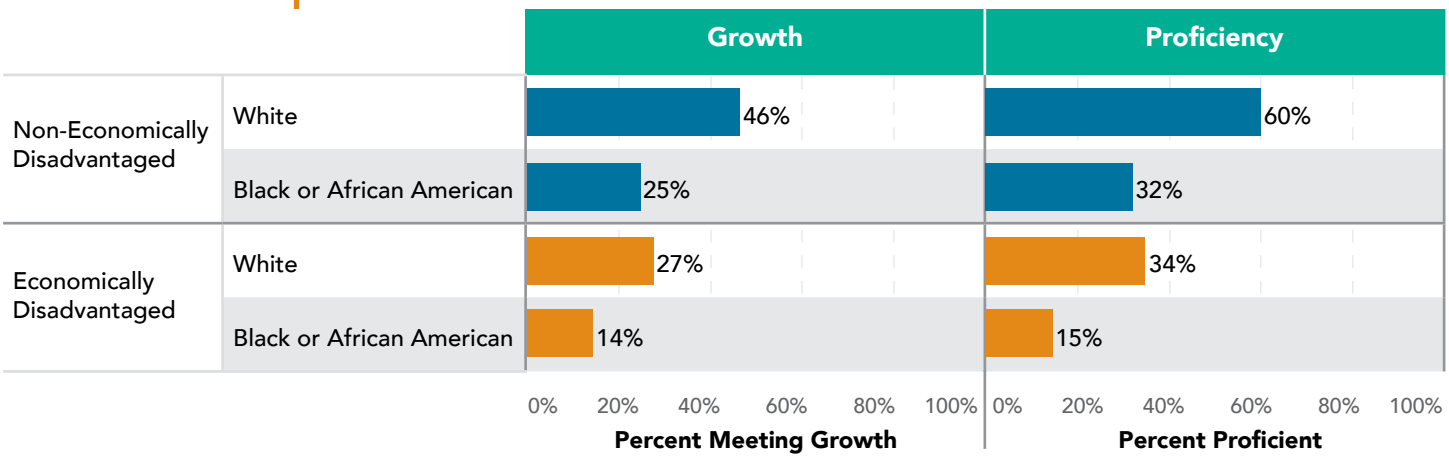
When compared to the White student group, the Black or African American student group has consistently lower outcomes than the White student group in all components. In particular, the Black or African American student group has significantly lower outcomes for academic growth and proficiency, though the student group graduates at levels comparable to those of the White student group. This may be interpreted as a positive takeaway, or perhaps as shedding light on a disconnect between the low student group performance in academic growth and proficiency and subsequent educational advancement. In the Proficiency component, the Black or African American student group is more than two quartiles below the White student group. That is, the Black or African American student group's top quartile (top 25%) Index performance is below the White student group's bottom quartile (bottom 25%). More simply put, higher performing Black or African American students are performing at a level below the lowest performing White students.

The Black or African American student group is the only group identified at a higher rate for Additional Targeted Supports (ATS)[14] than its rate of occurrence in the general population. That is, while only 40 percent of schools have a Black or African American student group, 58 percent of ATS schools were identified at least in part due to low outcomes for Black or African American students.

[14] Schools identified for Additional Targeted Supports are those having one or more student groups with a student group Index value at or below the lowest performing 5 percent of schools.

As previously described, Economically Disadvantaged (ED) status does not explain the Index disparity between the Black or African American and White student groups. The ED White students have higher outcomes than the non-ED Black or African American students for both Growth and Proficiency.[15] Regardless of ED status, Black or African American students' Index component values are roughly half those of comparable White students.

Cross Effects of Economically Disadvantaged Status and Select Race/Ethnicity



Top 10 in 10: Efficacy Metric

Partnership District Schools

Michigan is building and implementing systems and structures to improve overall educational outcomes, although the School Index results suggest that such efforts may need to be broadened and intensified to meet Top 10 in 10 goals. Partnership Agreements with local school districts are the primary improvement process utilized by the MDE to facilitate improvements in student academic achievement in districts identified as low performing. Partnership Agreements are the primary intervention utilized by the MDE for the state's lowest-performing schools, and may provide guidance on whether the state is on track to meet the Efficacy metric in the Top 10 in 10. In contrast to federal identification, Michigan's Partnership Districts are selected under an agreement between the MDE and the district. Roughly 10 percent of Michigan schools receiving a School Index value are in districts with existing Partnership Agreements. Districts eligible for Partnership Agreements are often those that contain one or more schools identified for Comprehensive Support and Improvement (CSI; see below), although such districts often have additional challenges, such as financial obstacles or historical academic underperformance. CSI schools that lead the district to engage in a Partnership agreement are the schools most in need of support. MDE's policy of working directly with the district

[15] The opposite would be true if ED was the variable with greater impact.

of schools identified as CSI is arguably validated by the fact that schools in Partnership districts that are not included in the Partnership agreement still meaningfully underperform schools from non-partnership districts. The average Index value for Partnership districts declined from 44 in 2016-17 to 40 in 2017-18. This contrasts with the average Index value for non-Partnership districts, which declined from 69 in 2016-17 to 67 in 2017-18. Overall, districts receiving an Index value declined from 66 in 2016-17 to 64 in 2017-18.

Partnership District vs Non-Partnership District Schools Comparison Overall Building Index Values

School Type	2016-17			2017-18		
	Number of Buildings	Percent of Building	Average Index	Number of Buildings	Percent of Buildings	Average Index
Partnership District	321	9%	44	330	10%	40
Non-Partnership District	3,114	91%	69	3,075	90%	67
Grand Total	**3,435**	**100%**	**66**	**3,405**	**100%**	**64**

The Partnership District Index results validate the decision by the MDE to identify overall districts rather than individual schools, as the most serious challenges appear to be districtwide. The overall declines in statewide Index values are reflected in the Partnership District declines. Partnership Districts will continue to be the primary MDE intervention in lower-performing districts; these efforts play a critical role in closing achievement gaps and raising statewide achievement. At the same time, it appears that the statewide decline in school test scores is also reflected in Partnership Districts, and the factors contributing to the statewide decline are likely also present in Partnership District schools. The challenging results for Partnership Districts validate the MDE's policy plan to work not only with the identified CSI schools but also with the districts, and suggest that existing policies and supports for specific schools may need to be reviewed, updated, and/or expanded [16].

Policy Implications

While the Index system is an improvement over previous systems, and although overall Index scores have improved for some schools in Partnership districts and for the statewide SQSS component, the results speak to Michigan's significant educational challenges and the importance of meeting MDE's aggressive Top 10 in 10 goals and strategies. The Index results indicate difficulties in achieving progress towards the Top 10 in 10 Exit Ready, Equity and Efficacy measurement areas. There are measurement challenges and general limitations in the one-size-fits-all Index system, and further challenges to applying Index results as a rough proxy for student

[16] See "Policy Implications and Next Steps" section.

achievement objectives. This paper presents statewide results, and individual schools may have differing results that may offer statewide lessons. At minimum, the School Index provides a blunt "first-use" tool in the overall school improvement toolbox.

A review of statewide School Index results reveals several areas requiring focus. In particular, the Index results suggest that the Black or African American student group and Partnership Districts and their schools need further support. Schools also need more supports to improve student academic performance. This is indicated in the School Index's Growth and Proficiency components, with many schools showing challenges in attaining average or better index values in these areas. Supports for these schools needed to address students' low academic performance are diverse. They may include the need for more staff, improving data literacy, or providing safe learning environments. Alternative schools, virtual schools, charter schools, small schools, and Special Education Centers all have substantial challenges[17]. The MDE and its partners must redouble efforts to accomplish the state's critically vital educational ambitions, and may need to expand and intensify their Top 10 in 10 efforts. For accountability purposes, such efforts may include, but are not limited to, refining the Index business rules to better align with Top 10 in 10 goals, engaging with other state education agencies to validate and adopt best practices, and strengthening engagement with all relevant stakeholders to deliver better outcomes for Michigan's children. For identification purposes, MDE policies and supports for specific school types may need to be reviewed, updated and expanded. Currently, small schools and Special Education Centers are exempt from identification for further supports. However, these school types, as well as alternative schools, are as a group performing below or well below average overall outcomes for their students. Middle schools and high schools are also showing larger degrees of unmet need. While there are instances of high-performing charter schools, as a group this type of school is providing lower outcomes than surrounding comparable schools. Finally, virtual schools are a fast-growing Michigan school typology where high Index outcomes, to this point, are sorely lacking.

Next Steps

Michigan has made meaningful gains in educational efficacy, particularly with the development of its new accountability system, the School Index, and its Partnership District support model. The School Index was designed to address criticisms of past accountability systems and to provide more data, with more layers, to more schools, while simultaneously reducing the number of schools identified for further supports, so supports could be more concentrated. The Partnership District model's choice to work with the parent districts of schools identified for support (i.e., Partnership Schools) is firmly validated by School Index. Even Non-Partnership Schools in

[17] Appendix D - School Typologies provides additional details for alternative schools, virtual schools, charter schools, small schools, and Special Education Centers.

Partnership Districts are on average well below the state averages on nearly every measure within School Index. However, these successes by themselves are not enough. Michigan must strategically expand and intensify its efforts to increase efficacy.

This need is demonstrated by low outcomes on exit ready measures, high inequity, and large efficacy gaps evident through systematically depressed outcomes for multiple school types. Outcomes for the exit ready measures in the School Index are stagnant or declining, both overall and in most measures. Inequity is high, with Michigan's Black or African American student group having outcomes at least one to two quartiles below the White student group on most measures (i.e., the top 75 percent of Black or African American students are performing below the average or bottom 25 percent of White students). This racial gap is not explained by correlations with poverty (that is, even after controlling for poverty, large gaps remain), nor is this only an issue only for Metro Detroit/Southeast Michigan[18]. Efficacy is improving, but has many holes, as demonstrated by the meaningfully lower results for alternative schools, virtual schools, small schools, public charter schools, special education centers, middle schools, and high schools. This indicates larger degrees of unmet need in these school types, which will likely require changes to systematic supports.

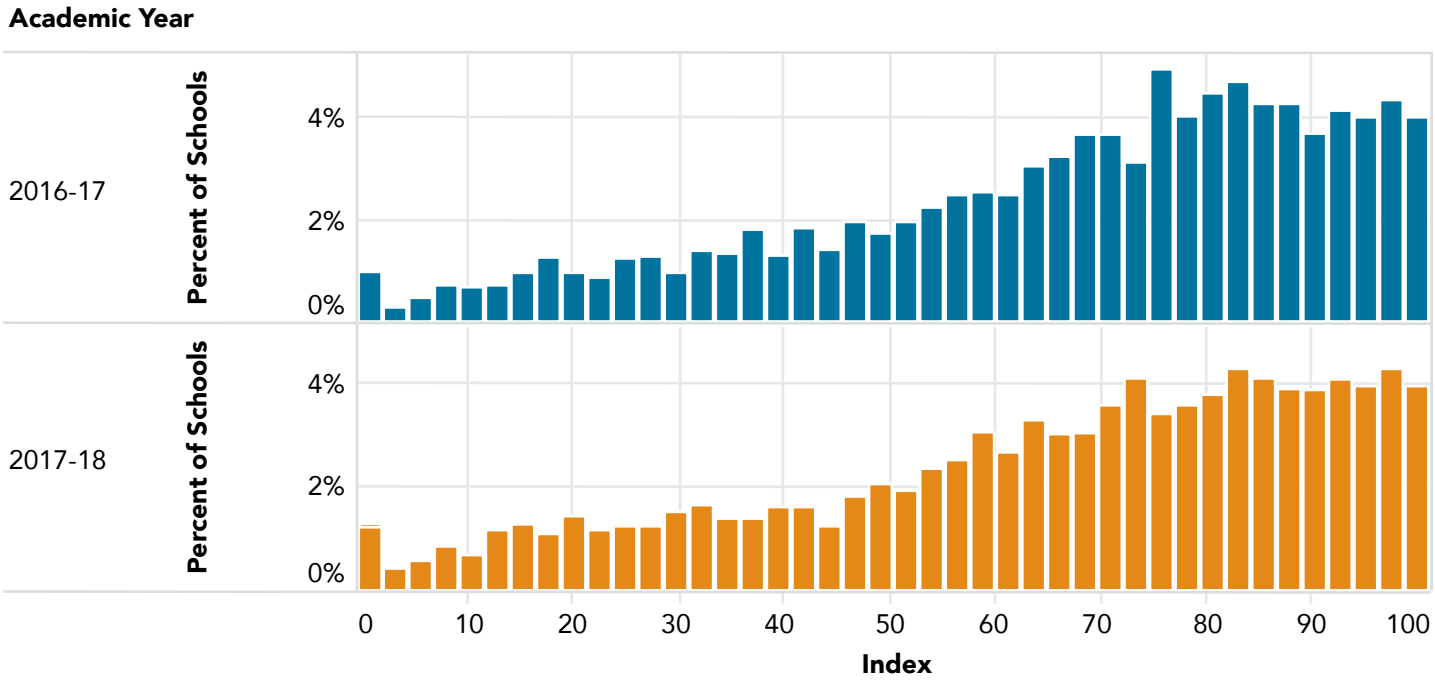
A necessary component to address the issues of low outcomes on exit ready measures and high inequity will be for Michigan to increase its efficacy, through changes in its practice and culture of how systematic supports are understood and best provided to schools. The MDE must rapidly and fully develop its Coordinated Supports effort, of which the Partnership District is only one level. This will require the MDE to increase its ability and practice to provide broader, less intense, and indirect supports, such as developing tools and trainings and identifying and disseminating best practices. At the same time, the MDE must facilitate a change in Michigan's education culture – from the current culture in which schools seek only to surpass the minimum bar of accountability systems, to one where all schools self-identify their specific needs and then locally determine which tools, training, best practices, and supports will be required to meet those needs. Changes of this degree and magnitude will be challenging but necessary for Michigan to meet Top 10 in 10 goals by 2025-2026.

[18] Large gaps, after controlling for poverty, are found in 59% (33 of 56) of Michigan Intermediate School Districts (ISDs). A large gap is defined as 10% or greater gap in Proficiency and Growth Index performance.

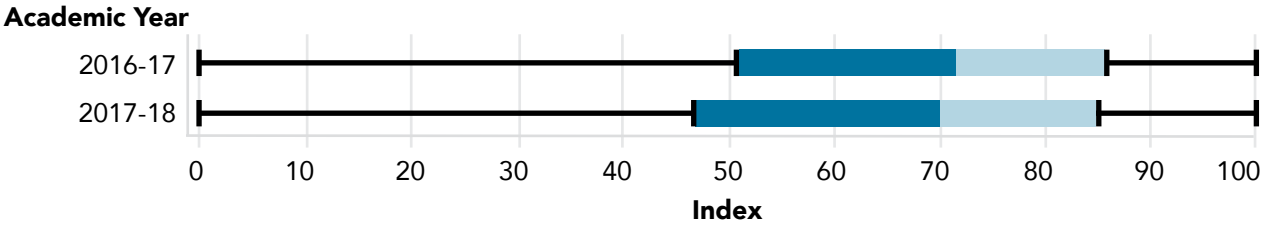
Appendix

Appendix A - Building Overall Index Values

Traditional Distributions of Building Overall Index Values



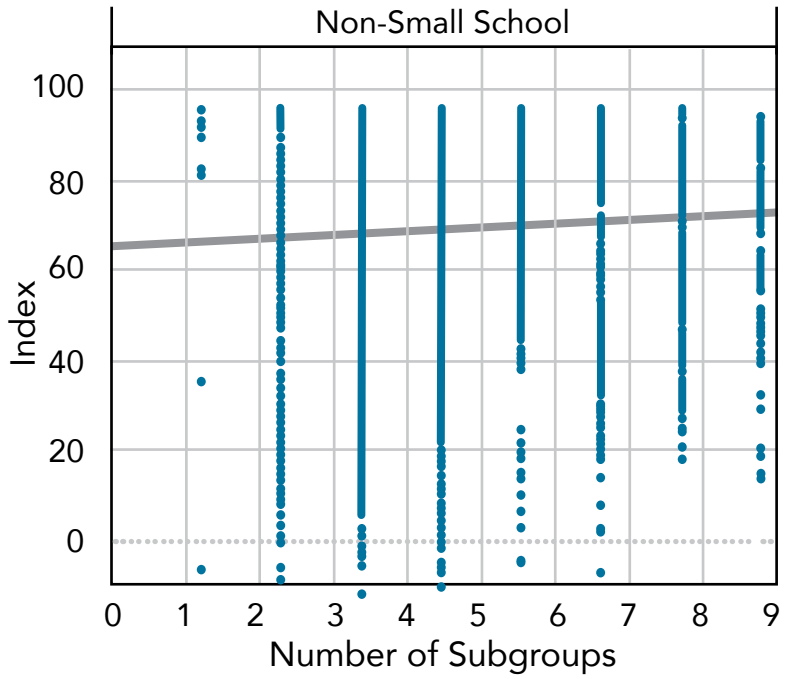
Condensed Distributions (i.e., Box Plots) of Building Overall Index Values



Appendix B - Student Group Correlations

Subgroup Correlation to Building Overall Index

Number of Student Subgroups vs Building Overall Index

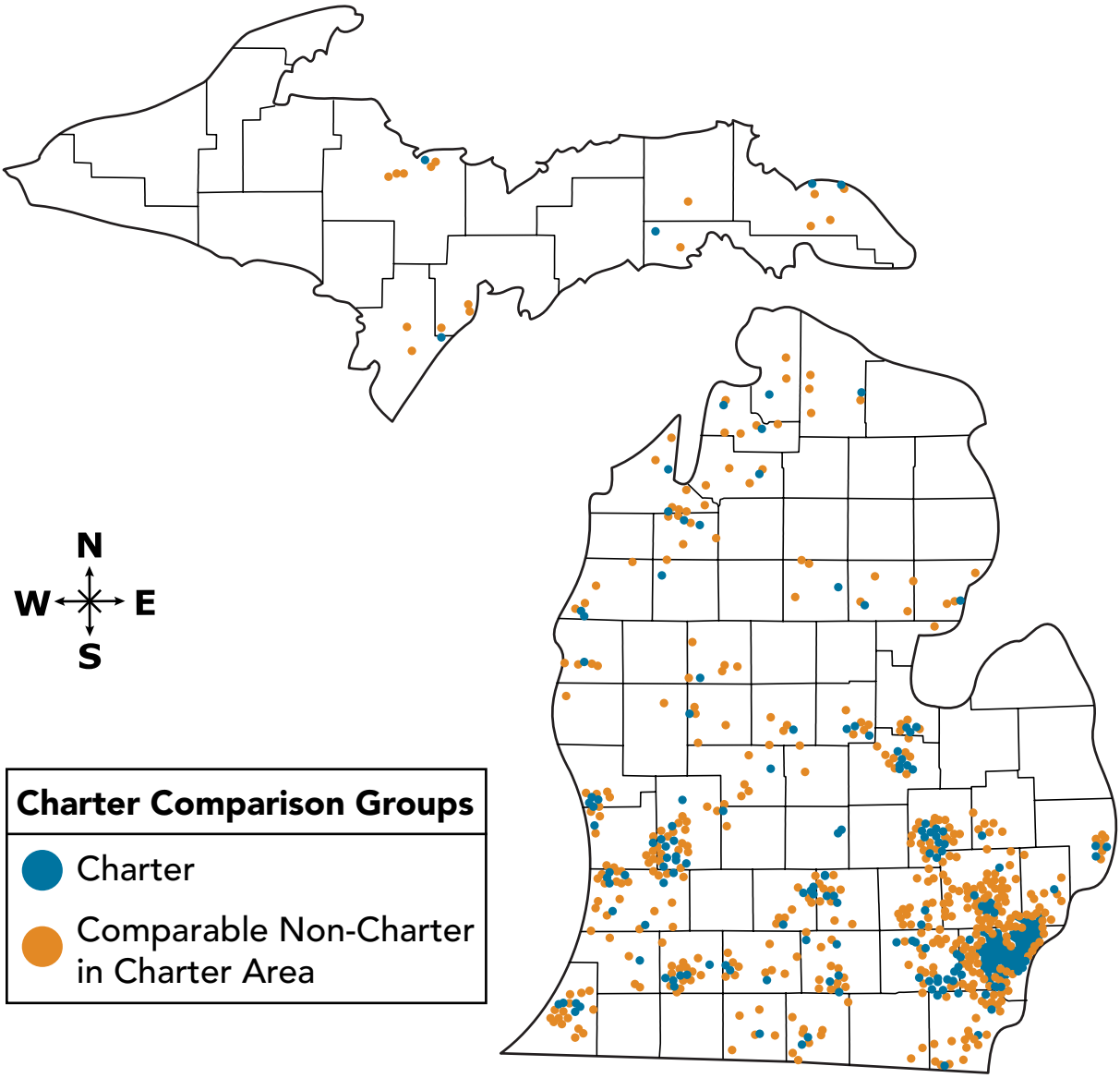


R-Squared: 0.0037

Average Index by Number of Student Subgroups

	Non-Small School	
Number of Subgroups	**Number of Schools**	**Average Index (copy)**
8	119	75
7	207	70
6	338	67
5	437	69
4	577	69
3	1,050	67
2	231	65
1	9	79
Grand Total	2,968	68

Appendix C - State Map of Michigan Charter Schools and Nearby Public Schools



Appendix D - School Typologies

Michigan has a large variety of school typologies, and they display highly divergent Index performance. The differences in typologies and resulting performance suggest that policymakers should not only examine overall Index performance in context of Top 10 in 10 objectives, but also examine individual typologies, as challenges and prescriptions for success may differ. Flexible approaches may serve these school typologies well.

Alternative Schools

Alternative schools—which for accountability purposes are those schools where 90 percent or more of enrolled students are in alternative education programs and where the districts have chosen alternative education as a school emphasis—provide added flexibility and alternative instructional models for students who have specific needs and are often at risk of not graduating. Alternative schools are mostly high schools and are heavily focused on retaining and graduating students. The Index performance of alternative schools, with their focus on preparing learners to successfully exit the PK-12 system, may also provide insight on whether the state is making progress in the Top 10 in 10 Exit Ready metric.

Alternative Schools vs Non-Alternative Schools
Average Overall Building Index

School Type	2016-17			2017-18		
	Number of Buildings	Percent of Buildings	Average Index	Number of Buildings	Percent of Buildings	Average Index
Alternative School	210	6%	25	220	6%	22
Non-Alternative School	3,225	94%	69	3,185	94%	67
Grand Total	**3,435**	**100%**	**66**	**3,405**	**100%**	**64**

The average overall School Index value for alternative schools was 25 in 2016-17 and 22 in 2017-18. In contrast, the average overall School Index value for non-alternative schools in 2016-17 was 69 and 67 in 2017-18. Alternative schools are a relatively small share of the state's overall building count, representing roughly 6.1 percent of schools in 2016-17 and 6.5 percent of schools in 2017-18. Also, many alternative schools are small schools, with fewer than 30 tested students, meaning it is difficult to conclude whether low outcomes are tied to building programs or to specific students or cohorts of students. While these schools serve a decidedly different population with unique and increased challenges, ideally, with the proper supports these students should also be expected to have the same rigorous outcomes expected for all other students. At this point, however, it does not appear that alternative schools are displaying Index performance that indicates progress for the Top 10 in 10 Exit Ready metric.

Charter Schools

Public charter schools represent a significant share of schools in the Index system. Their overall Index performance may provide a window into whether Michigan is ensuring equitable opportunities for learning for all school typologies as indicated in the Top 10 in 10 Equity metric. Public charter

schools are distributed throughout most corners of the state, most heavily concentrated in major metropolitan areas, especially in the core parts of Metro Detroit[19]. In 2016-17, there were 370 public charter schools in the Index system, representing 11 percent of overall schools; in 2017-18, there were 361 schools in the Index system, again representing 11 percent of overall schools.

Charter vs Non-Charter
Average Overall Building Index

School Type	2016-17			2017-18		
	Number of Buildings	Percent of Buildings	Average Index	Number of Buildings	Percent of Buildings	Average Index
Charter	370	11%	51	361	11%	49
Non-Charter in Charter Area	1,106	32%	61	1,091	32%	59
Non-Charter in Non-Charter Area	1,959	57%	72	1,953	57%	70
Grand Total	**3,435**	**100%**	**66**	**3,405**	**100%**	**64**

Public charter schools displayed slight overall declines in average building Index values, with an overall decline from 51 in 2016-17 to 49 in 2017-18. Traditional public schools in proximity to public charter schools represented nearly a third of buildings in both Index years, or roughly 1,100 schools. These schools had an average overall Index value of 61 in 2016-17 and 59 in 2017-18. Traditional public schools not in proximity to public charter schools represented 57 percent of buildings in both Index years, or roughly 1,950 schools. These schools had an overall average Index value of 72 in 2016-17 and 70 in 2017-18, which is significantly higher than public charter schools or traditional public schools located in proximity to public charter schools. This disparity between traditional public schools and public charter schools might suggest that public charter schools are concentrated in localities where traditional public schools have or are perceived to have more challenges with performance outcomes. Given that only select areas of the state are well served by charter schools, it plausibly makes more sense to compare traditional schools in areas well served by charters to nearby traditional public schools, as opposed to comparing public charter schools to statewide traditional public schools.

[19] See Appendix C for statewide map of charters and nearby non-charter schools.

Small Schools

Small schools, defined as those with fewer than 30 tested students in the entire building, represent roughly 15 percent of buildings statewide, or slightly over 500 schools out of nearly 3,000 schools. Small schools had an average overall building Index value of 47 in 2016-17 and 45 in 2017-18. In contrast, non-small schools had an average overall building Index value of 70 in 2016-17 and 68 in 2017-18. The low index values suggest that small schools might have particularly significant unmet needs. Small schools might have less stable year-over-year data due to the outsized impact of individual students on overall Index performance related to the school's low enrollment numbers.

Small School vs Non-Small School
Average Overall Building Index

Component	School Type	2016-17			2017-18		
		Number of Buildings	Percent of Buildings	Average Index	Number of Buildings	Percent of Buildings	Average Index
Overall	Small School	522	15%	47	528	16%	45
	Non-Small School	2,913	85%	70	2,877	84%	68
Grand Total		**3,435**	**100%**	**66**	**3,405**	**100%**	**64**

Index results differ between certain types of alternative or small schools. There appears to be little difference in the performance between small alternative schools and non-small alternative schools, but a significant difference in performance between small non-alternative schools and non-small, non-alternative schools. A large portion of small schools are alternative schools—30 percent of small schools are alternative schools (average Index value of 22), while small schools that aren't alternative schools have an average overall building Index value of 53. Looking at non-alternative small schools vs. non-alternative schools that aren't small schools, non-alternative small schools had an average overall building Index value of 55 in 2016-17 and 53 in 2017-18, while non-alternative schools that aren't small schools had an overall building Index value of 71 in 2016-17 and 69 in 2017-18. Looking at small alternative schools vs. alternative schools that aren't small schools, alternative small schools had an average overall building Index value of 26 in 2016-17 and 22 in 2017-18, while alternative schools that aren't small schools had an overall building Index value of 24 in 2016-17 and 23 in 2017-18.

Small Schools Additional Considerations
Alternative Small Schools

School Type	School Type	2016-17			2017-18		
		Number of Buildings	Percent of Buildings	Average Index	Number of Buildings	Percent of Buildings	Average Index
Non-Alternative School	Small School	385	11%	55	388	11%	53
	Non-Small School	2,840	83%	71	2,797	82%	69
Alternative School	Small School	137	4%	26	140	4%	22
	Non-Small School	73	2%	24	80	2%	23
Grand Total		**3,435**	**100%**	**66**	**3,405**	**100%**	**64**

Special Education Centers

For Index purposes, Special Education Centers are defined as schools in which all tested students are in the Students with Disabilities student group. Special Education Centers compose a relatively small share of the state's overall school building count, representing roughly 3 percent of Michigan schools receiving a School Index value. Special Education Centers are specialized programs operated by a district or intermediate school district to provide special education services for students across multiple school districts. Such centers had an average Index value of 58 in 2016-17 and 54 in 2017-18. This contrasts with non-Special Education Centers, which had an average Index value of 67 in 2016-17 and 64 in 2017-18.

Special Education Center vs Non-Special Education Center
Average Overall Building Index

Component	School Type	2016-17			2017-18		
		Number of Buildings	Percent of Buildings	Average Index	Number of Buildings	Percent of Buildings	Average Index
Overall	Special Education	111	3%	58	111	3%	54
	Non-Special Education	3,324	97%	67	3,294	97%	64
Grand Total		**3,435**	**100%**	**66**	**3,405**	**100%**	**64**

It is not surprising that Special Education Centers have significantly lower Index performance, due to the student populations served by these programs. These results indicate such schools need attention, either through more traditional supports, or through accountability and reporting more focused on the unique characteristics of these programs and the students they serve rather than through an accountability and reporting system developed to include all schools. At the same time, Special Education

Centers' relative underperformance is arguably less expected. The largest impediment to the performance of Special Education Centers in the School Index is the graduation rate, with an average Index value of 3, compared to 77 for non-Special Education Centers. Most Special Education Center students are not on a path to graduation and are more likely to receive a certificate of completion rather than a diploma. Special Education Centers have higher Index Proficiency values than non-Special Education Centers (69 and 59, respectively), but have lower Index Growth values (45 and 59, respectively). This shows that when given an appropriate test, students at Special Education Centers can demonstrate levels of proficiency comparable to other students. The differing growth values may be explained by the fact that these students take an alternate assessment for which Michigan is not currently able to calculate growth[20]. Only 63 percent of Special Education Centers have growth data included in their Index results, and Special Education Centers' growth index values only measure a portion of their student population.

Special Education Centers have very different results for the Percent Not Chronically Absent subcomponent. The average subcomponent Index value for Special Education Centers – Percent Not Chronically Absent was 61 in 2016-17 and 56 in 2017-18. In contrast, the average subcomponent Index value for Non-Special Education Centers – Percent Not Chronically Absent was 85 in 2016-17 and 80 in 2017-18. The greater issues with chronic absenteeism may be explained by many students in such centers having medical needs that might cause or require them to miss more than 10 percent of scheduled days.

Special Education Center vs Non Special Education Center
Not Chronically Absent Subcomponent

Subcomponent	School Type	2016-17			2017-18		
		Number of Buildings	Percent of Buildings	Average Index	Number of Buildings	Percent of Buildings	Average Index
Pct Not Chronically Absent	Special Education	95	3%	61	95	3%	56
	Non-Special Education	3,217	97%	85	3,185	97%	80
Grand Total		**3,312**	**100%**	**84**	**3,280**	**100%**	**80**

[20] All or almost all students in Special Education Centers take the MI-Access, Michigan's alternate assessment that encompasses the Functional Independence (FI), Supported Independence (SI) and Participation (P) assessments. Currently, growth data is available only for FI. The limited growth data may suggest a need for increased state support and review. Further analysis of MI-Access FI Growth data for Special Education Centers vs. Non-Special Education Center may provide a better sense of comparability.

Access to Librarians/Media Specialists

The Access to Librarians/Media Specialists metric—a measure to incorporate a concept of student access to library or media center services by determining a ratio of students to qualifying staff within a school—was found to lack a wide range of variation within the metric's individual results. Additionally, and not surprisingly due to its low weight in the larger overall school index, the progress toward a target in this area has a low impact on the school index on the whole. For the K-8 Access to Librarians/Media Specialists metric, 79 percent of K-8 schools had an Index value of 0, and the remaining 21 percent had an Index value of 100. This metric accounts for only 1 percent of a building's overall Index score, but has been an outsized point of discussion and energy.

K-8 Access to Librarian/Media Specialist
Average Overall Building Index by Zero and Non-Zero Index

		2016-17			2017-18		
		Number of Buildings	Percent of Buildings	Average Index	Number of Buildings	Percent of Buildings	Average Index
K-8 Access: Librarian	Has Zero Index	1,964	79%	0	1,950	79%	0
	Has Non-Zero Index	530	21%	100	525	21%	100
Grand Total		**2,494**	**100%**	**21**	**2,475**	**100%**	**21**

Districts have provided the MDE with feedback that the inclusion of this metric in the School Index system is potentially distracting from school turnaround and improvement efforts. This metric may be a candidate for reconsideration within the Index system, as to whether the underlying business rules need to be refined, or the metric needs to be removed, to better align with Top 10 in 10 goals.

Appendix E - Summary of Identification Results

The federal Every Student Succeeds Act (ESSA) requires the identification of schools in need of additional support. In Michigan, these schools fall into three categories: Comprehensive Support and Improvement (CSI) schools, Targeted Support and Improvement (TSI) schools, and Additional Targeted Support (ATS) schools. CSI schools are schools in the bottom 5 percent of overall Index performance and those with a four-year graduation rate below 67 percent. TSI schools are those schools having one or more student groups performing in the bottom 25 percent within each applicable Index component. ATS schools are those schools that meet the TSI rules for identification and have any student group(s) performing overall at or below the lowest performing 5 percent of schools statewide. In 2016-17, all three categories were identified in the Index, while in 2017-18, only TSI and ATS schools were identified. The frequency of identification of the different categories is prescribed by federal requirements.

One of the primary purposes of the School Index system is to identify schools in need of additional supports. Michigan has steadily improved in reducing the number of identifications, which helps focus state resources on the schools most in need of assistance. The MDE has engaged with the United States Department of Education, other State Education Agencies, and relevant stakeholders to deliver a better statewide system of identification. Under the Michigan School Index system, schools are no longer identified due to narrowly focused, individual issues with underperformance; instead, there has been a shift towards using a percentage of target met measurement, moving identification to schools with especially broad or deep unmet needs within at least one student group. Among the many changes under ESSA, the identification framework has shifted from math and reading scores as defining a school's relative success or failure to a new approach, where school quality is measured by a broader, more flexible set of indicators and schools are identified for support and assistance.

Count of Buildings Identified for Further Supports
by Academic Year and System

Academic Year	Accountability System	Support Categories	Number of Schools Identified for Supports
2017-18	School Index	ATS or TSI	123
2016-17	School Index	CSI, ATS, or TSI	295
2015-16	No Identifications by MDE		
2014-15	No Identifications by MDE		
2013-14	Top-to-Bottom	Priority or Focus	484
2012-13	Top-to-Bottom	Priority or Focus	486
2011-12	AYP & Top-to-Bottom	Not Met AYP, Priority or Focus	966
2010-11	AYP	Not Met AYP	1,299

There was a steep drop in the number of schools identified in the first two years of the School Index system, from 295 schools identified in 2016-17, to 123 schools identified in 2017-18. This drop is the result of it no longer being necessary to identify all three federally required categories every year. Both Index years, however, represent steep drops in low-performing school identification from previous accountability systems. Under the Top-to-Bottom accountability system in use from the 2012 to 2014 school years, which ranked schools against each other, there were 486 identifications (Priority or Focus) in 2012-13 and 484 identifications (Priority or Focus) in 2013-14. In earlier years (2010-2012), under the No Child Left Behind (NCLB) Adequate Yearly Progress (AYP) system, there were 1,299 identifications (Not Made AYP) in 2010-11 and 966 identifications (Not Met AYP, Priority, or Focus) in 2011-12.

In the 2017-18 school year, 63 schools were designated as Targeted Support and Improvement (TSI) (i.e., at least one broadly underperforming student group), which represents 2 percent of schools in the School Index system; 60 schools were identified as Additional Targeted Support (ATS) (i.e., at least one deeply underperforming student group), which also represents 2 percent of schools in the Index system. Among the TSI schools, 35 underperformed in the Students with Disabilities student group, 18 underperformed in the Economically Disadvantaged student group, and 14 schools underperformed in the Black or African American student group. Among the ATS schools, 36 underperformed in the Students with Disabilities student group, 35 underperformed in the Black or African American student group, and 32 schools underperformed in the Economically Disadvantaged student group.

Count and Percent of Schools in Each Support Category

Academic Year	Support Category	Support Reason	Number of Schools	Percent of Schools
2017-18	General Support	Not Identified for Further Supports	3,129	92%
	Targeted Support and Improvement	Broadly Underperforming Subgroup	63	2%
	Additional Targeted Support	Deeply Underperforming Subgroup	60	2%
	Comprehensive Support and Improvement (Carried Forward)	Low Index	87	3%
		Low Grad Rate	24	1%
		Both Low Index and Low Grad Rate	42	1%
Grand Total			**3,405**	**100%**

Of the pre-existing Comprehensive Support and Improvement (CSI) schools (from 2016-17), 87 were identified for low overall index, representing 3 percent of schools in the School Index system; 24 were identified for low graduation rate, representing 1 percent of schools in the School Index system; and 42 were identified for both low overall index and low graduation rate, representing 1 percent of schools in the School Index system.