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About Business Leaders for Michigan

Business Leaders for Michigan (BLM), the state's business roundtable, is dedicated to making Michigan a "Top Ten" state for job, economic, and personal income growth. The work of BLM is guided by the Plan for a Stronger Michigan, a holistic, fact-based strategy to achieve the organization's "Top Ten" goals. The organization is composed exclusively of the chairpersons, chief executive officers, or most senior executives of Michigan's largest companies and universities. Our members drive 32 percent of the state's economy, provide nearly 375,000 direct jobs in Michigan, generate over \$1 trillion in annual revenue and serve nearly one half of all Michigan public university students. Find out more at www.businessleadersformichigan.com.



Michigan's K–12 performance lags well behind that of most states, even those long known for their poor educational outcomes. Worse yet, Michigan's results continue to stagnate or drop, even as other states move ahead.

With fewer than one in four high school students (23 percent) graduating ready for college or career, Michigan learners are not well prepared to compete with their peers in other states and nations.

This is not just an educational crisis—it's also an economic one. Poor educational attainment correlates with lower earnings, and Michigan stands to get caught in a vicious cycle that harms business and community growth. When the state produces fewer competent, well-trained workers, average earnings will drop, rendering Michigan consumers unable to afford the things businesses produce. Ultimately, the companies themselves will flee.

Rather than figuring out how we got in this situation, the most important question is, "What can be done to fix it?"

Now is the time to look at Michigan's K-12 education system with an eye to making necessary improvements before it is too late.

This report, a third-party review of Michigan's education system, was developed to explore policies and practices that might help raise K–12 performance from the bottom quarter of scores to being a "Top Ten" U.S. state in reading and math across National Assessment of Education Progress (NAEP) categories.

only

Michigan
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Now is the time to look at Michigan's K-12 education system with an eye to making necessary improvements before it is too late.

Best Practices of Successful States

Five similar states were examined to discover initiatives that might be replicated to improve Michigan's K–12 performance. The five — Florida, Indiana, Massachusetts, Minnesota and Tennessee — were comparable to Michigan in student demographics, per capita income, economic base and governance structure.

Our assessment focused on student outcomes in reading and math, as well as graduation rates, and included a review of state reform initiatives, analysis of performance of students over

time, and interviews with hundreds of educators,
policy leaders and stakeholders. The information
we gathered reveals important trends and ideas
capable of re-invigorating our state's public education
system and delivering the results students and
families deserve.



Key Findings

Success will depend on changes in Michigan's overall culture — setting the bar higher, giving students and teachers the support they need, and being determined to see the improvements sought through completion. Many educators that participated in this assessment agree this is critical.

Successful schools (and those showing dramatic gains) have:

High standards and aligned assessments

Effective schools set standards for each grade level that are high and clear, and use assessments that are aligned to them.

Michigan is doing well here. In 2014, the state adopted the Michigan Student Test of Educational Progress (M-STEP), a test aligned to nationally recognized benchmarks for success after high school. Michigan is imperiling its progress, however, by implementing frequent changes to the test — currently proposed adjustments would move the state's assessment goal posts for the third time in six years. These changes make it difficult to measure progress, because the assessments are different. Further, the changes are not aligned with the goal of making Michigan a "Top Ten" education state.

Significant investments in teacher training and development

Our research also showed that states scoring well or improving results on achievement measures consistently invest in teacher development.

Michigan has raised standards for its teachers, with reforms in tenure and certification and more rigorous evaluation. But the investment in teacher training, professional development and access to technology and data in Michigan has lagged.

Accountability measures that are meaningful and easily understood

Accountability is important. Student analytics are one way to measure educational effectiveness, but schools can be measured as well.

Michigan has a Parent Dashboard for School Transparency that provides meaningful information and a percentile rank for how schools perform against others in the state, but it is less clear and requires more interpretation than a simple A–F scoring system.

Corrective action and remediation for schools that are not meeting standards

There must be corrective action and remediation for schools and school leaders that don't meet standards.

Michigan's intervention system is relatively weak and its governance system partisan and political. While Michigan has a framework for accountability in place, it is complex and inconsistently enforced. More positively, the Michigan Department of Education has begun to acknowledge the need for changes to oversight and intervention practices.

Recommendations for moving forward:

- Maintain high college and career readiness standards
- Keep and strengthen the M-STEP
- Prepare and train teachers on Michigan's standards, provide effective opportunities for professional development, and access to technology and data
- Provide leadership training for principals
- Incentivize performance with professional recognition and civic stature
- Make sure classroom funding is adequate and equitable
- Adopt accountability metrics that are easily understood
- Hold school leaders, management and schools accountable for student outcomes

It's important to note that states with improving results also had something that is hard to measure and quantify: a united and sustained effort, backed by stakeholders who were prepared to stick with an initiative and support it. While it is important for Michigan to know where we want to go and the path to get there, being committed to reaching the goal of being a "Top Ten" education state is a must.

That requires a culture that begins to expect excellence and improvement — if we all set high expectations for our students, they will rise to meet them.



business community.

Unfortunately, data on Michigan's K-12 results show that Michigan student outcomes consistently lag those of other states and appear to be worsening. In fact, Michigan students rank in the bottom five states for fourth grade reading results, and 37th in the U.S. for eighth grade math. Fewer than one in four of our high school graduates are able to demonstrate readiness for career and college.

in 8th grade math*

in career and college readiness*

*National Center for Education Statistic (National Assessment of Educational Progress) **ACT College and Career Readiness Benchmarks While our team spent hundreds of hours of research studying the problems underlying the education system in Michigan, this report is not intended to provide a detailed understanding of a system that so many others have accumulated through decades of experience. Countless hours are invested in Michigan's education system every year by the numerous parties involved —

Michigan does not have a culture that demands the highest quality of education at every level in the system. teachers, administrators, state leaders, politicians, special interest groups, parents and others, and there certainly is no shortage of experience or opinions rendered by qualified, caring people.

So, with this substantial investment of time and talent, we were left asking ourselves not only how it is possible that we have a system that underperforms relative to most states, but also how and why does this problem seem to be getting worse?

This report is not intended to address all the issues that could reverse this situation — just the most important ones. Through data analysis, best practice literature reviews, in-person interviews and benchmarking, several themes emerged that we believe have the greatest potential impact on improving Michigan's education outcomes.

There was one theme that rose above the others: Michigan does not have a culture that demands the highest quality of education at every level in the system. As a state, we have grown accustomed to accepting excuses for our K–12 outcomes, rather than holding ourselves 100 percent accountable.

We have talented people spending countless hours trying to fix our education system, but their efforts are rarely coordinated.



Our researchers also were surprised during interviews when the conversations would turn toward how a particular action would impact the adults, with not enough focus on the impact to the students. Regardless of the topic of conversation — education standards, school and teacher evaluations, charter public schools, effectiveness of the Michigan Department of Education and intermediate school districts, budgetary decisions, etc. — the factors determining the course of action have not been properly weighted toward our students' best interests.

We need to change the culture in Michigan from one that hopes for the best to one that insists on it. It must be a fundamental expectation that every person — meaning every parent, teacher,

administrator, politician, employer and special-interest group — involved in education has a sole focus of doing what is best for the students.

We must create a culture where all students in Michigan can rely on an education system that will prepare them for successful lives and careers, no matter what path they choose.

We must create a culture where all students in Michigan can rely on an education system that will prepare them for successful lives and careers, no matter what path they choose. Every child needs to have the basic skills necessary to succeed in life and the knowledge of the career opportunities available. If a student wants to be a tradesperson, we need a system that creates competent tradespeople. If a student wants to be an engineer, we need to be able to help prepare quality engineering talent.

We need a culture in which we do not accept anything less than the complete academic and personal preparation of each and every high school graduate.



Scope, Objectives and Approach

The purpose of this report is to provide an objective, third-party view of leading practices that can have a positive influence on K–12 outcomes in Michigan. The research team focused on benchmarking Michigan education results and practices to those of states that have achieved superior performance or impressive gains. Based on this analysis, a set of policy principles were developed to guide the prioritization and development of specific actions.

Scope

The scope of the study was limited to K–12 education in Michigan and other U.S. states and was focused on data, facts and analysis. We gathered information about the classroom policies and practices that high-outcome schools and states employ and then compared them to Michigan's classroom policies and practices. While we recognize the importance of pre-K education and the role of colleges and universities in achieving strong education outcomes, they are not addressed in this report.



Objective

The objective of the study was to identify policies and practices needed to move Michigan's K–12 outcomes from the bottom quartile of U.S. states to the top ten.

Approach

American K–12 education performance has been widely studied by a variety of stakeholders — government agencies, school boards, academics, community groups and educators. Our approach was to combine results of previous studies with input from stakeholders within Michigan. We also spoke with people from the education field in selected comparable states and districts. These conversations helped us to determine the actions Michigan could take to drive performance improvements. The study was executed in four steps:

1. Validation of Performance Gaps

We worked with state and federal student performance data to understand where the gaps are in Michigan's education outcomes, by type of school, racial mix and other factors.

2. Literature Review

We reviewed available research to identify the strategies, policies and education practices other states have demonstrated. We also sought to determine how certain of these actions might lead to improved results in the areas where Michigan's performance lags.

3. In-Depth Interviews

We interviewed government and education professionals, particularly from states with superior education performance, to learn about the strategies, policies and practices they have implemented to improve their state's, district's or classroom's achievement levels.

4. Analysis and Development of Core Elements

We ultimately synthesized data analyses, reviewed available research results and interview findings to identify and prioritize the strategies, policies and practices others have used to successfully address the gaps in outcomes similar to those experienced by Michigan's schools.



Left unaddressed, the consequences of the K–12 education breakdown will be severe. The average education level is a strong predictor of a state's economic performance: per capita income closely follows education attainment. For example, Michigan has declined to 34th among the 50 states in per capita postsecondary degrees and is ranked 31st in per capita income.¹ The poor performance of the state's K–12 students in reading and mathematics suggests that, without an effective intervention, even lower rankings are coming.

To attract and grow the businesses our economy and citizens depend on, Michigan needs a high-quality K-12 education system capable of producing a large pool of prepared, skilled workers.

The correlation between income and education is likely to grow stronger. Capital is increasingly chasing talent, and workforce education attainment levels and the quality of a state's education system are key considerations for businesses choosing investment sites. Thus, the economic prospects for a state without a well-educated populace are likely to decline in a vicious cycle, while those with a well-educated populace will improve. To attract and grow the businesses our economy and citizens depend on, Michigan needs a high-quality K–12 education system capable of producing a large pool of prepared, skilled workers.

Unfortunately, Michigan is underperforming other states when it comes to producing an educated and skilled workforce. Worse still, Michigan is regressing. The National Center for Education Statistics (NCES) publishes authoritative and comprehensive annual state report cards on the performance of all American students. This report card, the NAEP, has been released for all states since 2003 and has tracked Michigan's decline. From 2003 to 2015, Michigan's student rankings have slipped from near the middle to near the bottom of all states.

According to the 2015 NAEP rankings, Michigan's students rank in the bottom two quintiles of the nation's students in nearly every category (reading, mathematics and graduation rate) across student demographics. See Exhibit 1.

Exhibit 1: In 2015, NAEP ranked Michigan K-12 students in the bottom two quintiles in nearly all categories

	4th Reading	4th Math	8th Reading	8th Math	Graduation Rate
All Students	5	5	4	4	4
White Students	5	5	5	5	4
Black Students	5	5	5	5	5
Hispanic Students	4	5	1	3	4
Asian Students	3	3	3	2	3
Urban Students	5	5	4	5	n/a
Suburban Students	4	4	4	5	n/a
Town Students	4	4	1	3	n/a
Rural Students	5	5	4	4	n/a
Charter Students	4	5	5	5	n/a
Non Charter Students	5	4	3	4	n/a
Subsidized Lunch	5	5	4	5	n/a
No Subsidized Lunch	5	5	4	5	n/a

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2015 Assessments.



¹ Bureau of Economic Analysis (Personal Income Table SA5), Bureau of Labor Statistics (CPI Inflation Calculator)

Overall, Michigan has fallen below historically poor-performing states, including Alabama, Mississippi, Louisiana and Arkansas. Today, our students rank at or near the bottom of the NAEP rankings across most categories.

The learning gains of Michigan's K-12 students are even more worrisome. Over the years, the overall performance of the nation's K-12 students has been improving as students face higher standards and expectations. Compared with other states, Michigan's K-12 students are improving more slowly or in many cases not at all. As a result, Michigan's K-12 students are consistently ranked in the NAEP's bottom two performance quintiles in terms of reading and mathematics learning gains in nearly every demographic. See Exhibit 2.

Exhibit 2: NAEP also ranks the learning gains of Michigan's K-12 students in the bottom two quintiles in most categories, with negative growth in one-third of them

	4th Reading	4th Math	8th Reading	8th Math
All Students ¹	5▼	5	5	5
White Students ¹	5▼	5▼	5▼	5▼
Black Students ¹	3	5	4	4
Hispanic Students ¹	4	5	4	5
Asian Students ¹	5	4	n/a	n/a
Urban Students ²	3	2	1	1
Suburban Students ²	5▼	5▼	4	4▼
Town Students ²	5▼	5▼	2	4▼
Rural Students ²	5▼	5▼	3	2

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2015 Assessments.

While Michigan's urban students have made greater learning gains relative to their peers in other states, Exhibit 1 shows these gains still place these students in the bottom two quintiles nationally. Overall, Michigan's students are improving at much lower rates than their peers.

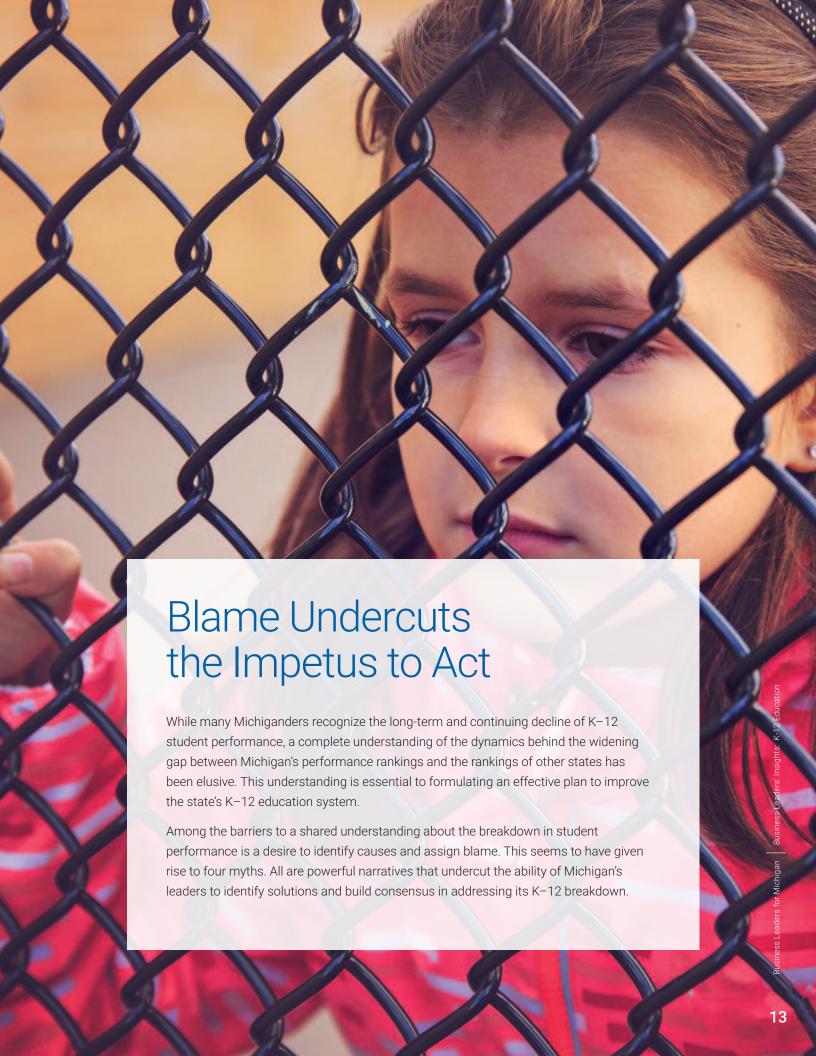
If we do not correct our course, Michigan employers will be forced to either import talent or export jobs, resulting in fewer jobs, lower incomes and a lesser quality of life for Michiganders.

Worse, in more than one-third of NAEP categories, the performance of Michigan's students is declining (see the down arrows in Exhibit 2). In these categories, the academic performance of white, suburban, rural and township students in Michigan is not only falling further behind that of their peers in other states, it is also declining relative to Michigan K-12 students of eight to 12 years ago.

In short, the bar for K-12 student performance is rising nationally, and Michigan's children are becoming less competitive. Other states are making gains in K-12 performance, some of them quite impressively while Michigan continues to lose ground.

Overall, the NAEP rankings provide a harsh reality check: Michigan's K-12 declines hold true for students across race, income and geographic location. The breakdown in Michigan's K-12 education system is stunting the prospects of all of its children and thus the entire state. If we do not correct our course, Michigan employers will be forced to either import talent or export jobs, resulting in fewer jobs, lower incomes and a lesser quality of life for Michiganders.

Growth based on performance difference between 2003 to 2015 ² Growth based on performance difference between 2007 to 2015



Perception v. Reality

Myth No. 1

Detroit is singlehandedly dragging down the performance rankings of the entire state.

There is no question that Detroit's schools have struggled through an extended period of emergency management and disappointing performance. Its student proficiency levels remain well below the level desired by its officials and families. But, as the NAEP data show, Detroit is not alone within Michigan.

The performance of nearly every demographic category of Michigan students is substantially lagging the other states. White, black and Hispanic students lag their peers nationally. Urban, suburban, rural and town students are lagging. Charter and non-charter school students are lagging. In short, what can be said about Detroit can be said about almost every other community in the state: all must substantially improve K-12 student performance.

Myth No. 2

Michigan is falling behind other states because it doesn't spend enough on K-12 education.

Michigan spends just over \$11,000 per pupil per year for K-12 education.² That is slightly above average among the states.

When we analyze NAEP rankings as a function of K-12 funding, we find: 1) there are states that spend a comparable amount less than Michigan and achieve superior results, and 2) there are states that spend more than Michigan and achieve inferior student results.

This isn't meant to imply that funding isn't a critical factor or that all K-12 funding reaches students. There are many ancillary costs related to K-12 education, including those related to administration, infrastructure and pensions, and the formula to determine whether any state's education system is adequately funded is complex. The complicating factors come from where the funding goes within the system and how much of it reaches classrooms. But funding alone isn't driving Michigan's outcomes.

Myth No. 3

The problem isn't K-12 education at all — it's poverty.

It is widely accepted that there is a strong correlation between poverty and education outcomes in the U.S. The scholastic performance of low-income students is likely to lag that of their middle-income and high-income peers, even when normalized for race and locale. But correlation is not causation.

A growing number of traditional public and charter public schools that serve low-income students achieve performance outcomes as good as or better than more affluent suburban schools. In Boston, the Brooke Charter Schools, which serve traditionally high-risk students, have some of the highest standardized test scores in Massachusetts, which has the country's highest NAEP rankings. In fact, for the last three years, all Brooke campuses have been in the top ten highest performing K–8 schools on standardized tests in math and English language arts.³

Myth No. 4

Charter public schools are responsible for declining results.

Like traditional public schools in Michigan, charter public schools have produced varying student outcomes. When charter public schools create significant excess capacity or are not operated effectively, they can be detrimental to the traditional public education system; however, they also have demonstrated that they can be highly effective, especially in impoverished communities.

However, representing only nine percent of Michigan's total public school enrollment, Michigan's charter school sector is simply not large enough to be fully responsible for Michigan's K–12 results. To blame charter public schools for failing traditional public schools is to ignore many other obvious problems.



If none of the above theories explain the breakdown in Michigan's K-12 education system, what does?

In this report, we do not assign blame. We strive to recommend steps Michigan should take going forward based on leading education reform practices that have proved effective in boosting student achievement.

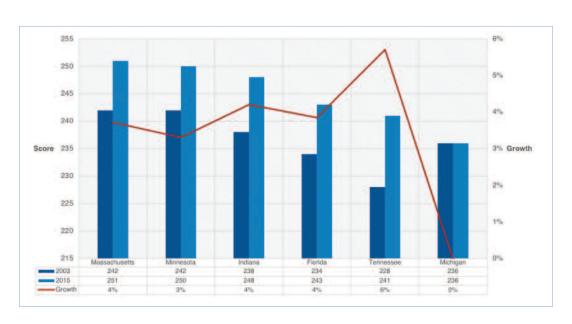
³ "Achievement." Brooke Charter Schools, www.ebrooke.org/achievement/.

Benchmarking Michigan Student Achievement Against Top Performing States

To establish our benchmark, we canvassed K–12 education systems across the U.S. to identify a group of states with higher or improving NAEP rankings relative to Michigan that have undertaken major K–12 reform initiatives.

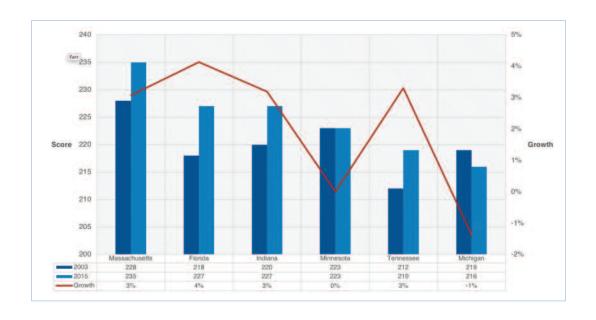
The focus was on states comparable to Michigan in terms of student demographics, per capita income, economic base and education governance. The five states selected were Florida, Indiana, Massachusetts, Minnesota and Tennessee. By selecting these states, we do not mean to suggest that they have the complete formula for success figured out. However, there are lessons to be learned from each of their journeys. Each of these states faces its own set of challenges in particular areas and even among these five, there are gaps and lessons still being addressed.

Michigan's 4th Grade Math Outcomes Have Stalled While Benchmark States Continue to Improve

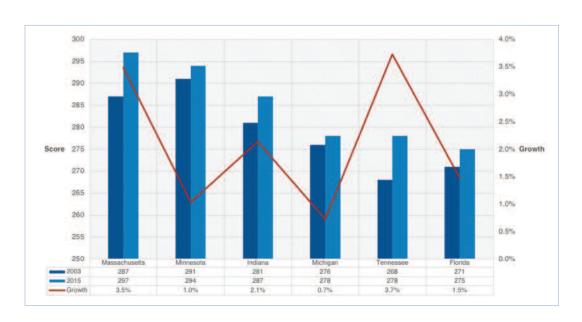


Source: US DOE, National Center for Education Statistics, All Students

Michigan's 4th Grade Reading Outcomes are Down While Most Benchmark States Have Improved

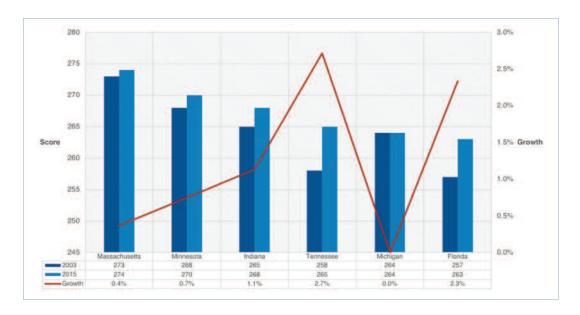


Michigan's 8th Grade Math Outcomes Have Improved Similar to Benchmark States



Source: US DOE, National Center for Education Statistics, All Students

Michigan's 8th Grade Reading Outcomes Have Stalled While Benchmark States Continue to Improve



Source: US DOE, National Center for Education Statistics, All Students

For this study, we analyzed the K–12 education performance of each of these five states. We assessed state reform initiatives, analyzed the performance of students over time and interviewed stakeholders throughout the states' education systems. We also assessed how each of these states started their journey of education reform.

In the past, conflict, blame, and deeply entrenched interests have made it difficult for state leaders to adopt the forward-thinking changes needed to deliver optimal student outcomes and sustain these changes over time.

A key element we found from this review was the important role of leadership. In making the case for the changes their states needed, for example, both Massachusetts and Tennessee began by engaging all stakeholders from government, business, philanthropy and the parent community in a reality check of student performance compared to expectations. While there was no unanimous agreement around key strategies for change, in both cases strong leadership drove a set of reforms and made adjustments based on feedback from the stakeholder community along the way. These leaders persisted in driving reforms that raised standards, increased the rigor of assessments and drove continuous support and improvement for educators, despite encountering opposition, entrenched interests and other roadblocks.

There are lessons for Michigan here. Our journey toward K–12 education reform often has been diminished by a lack of political will. Conflict, blame, and deeply entrenched interests have made it difficult for state

leaders to adopt the forward-thinking changes needed to deliver optimal student outcomes and sustain these changes over time. Champions are needed to make sure strong K-12 policy ideas are brought to fruition.

We also found through the analysis of the benchmark states' leading practices that there are a few foundational elements that lie at the core of their education systems. These elements together do not represent an ideal, or perhaps even an optimal, K-12 education system. They do, however, represent practices with specific state-led reforms, based on real-world K-12 education excellence. We believe the practices can improve the performance of Michigan's K-12 public school students and are reproducible within the parameters of Michigan's education governance environment — but only if certain cultural improvements are made.

Finally, we found that Michigan has adopted or tried to adopt some elements of the best practices but has often been unable to sustain their implementation or not complemented them with other key elements that would maximize their impact.







High Student Standards and Aligned Assessments

Leading educational states have jump-started their reforms by implementing rigorous college and career readiness standards with aligned assessments. Setting high and clear standards for each grade level sets distinct expectations for educators and administrators. Accompanying high standards with an aligned assessment system provides critical and consistent feedback to educators and parents on student progress and achievement. Aligned assessments also provide a mechanism to ensure students, even those who are most vulnerable, are measured against the same high standards and given the support they need to succeed.

Successful benchmark states have recognized the need to raise and maintain high college and career readiness performance standards as a mechanism that drives the entire education value chain to evolve in pursuit of improved student outcomes — even in the face of initially poor student performance.

As an area of strength, Michigan has already formulated and adopted high standards and aligned assessments. Michigan's Career & College Ready academic standards assess students' skill sets against four pillars necessary to earn a self-sustaining wage and participate in postsecondary opportunities: (1) their abilities to use technology and tools strategically in learning and communicating; (2) their uses of argument and reasoning to do research, construct arguments, and critique the reasoning of others; (3) their abilities to communicate and collaborate effectively with a variety of audiences; and (4) their abilities to solve problems, construct explanations and design solutions. These standards were developed with input from a variety of education professionals and they raise performance expectations to a level consistent with other states that are highly ranked by NAEP.

In 2014, the Michigan Department of Education (MDE) instituted the Michigan Student Test of Educational Progress (M-STEP), which was an improvement over its predecessor, the Michigan Education Assessment Program (MEAP) and its generally lower thresholds for proficiency. The 2014 M-STEP assessment was appropriately aligned to nationally benchmarked Career & College Ready Standards and met the level of rigor necessary to measure the level of a student's readiness to succeed after the 12th grade via either college or career.

However, Michigan has not sustained this progress. Recent language in the state budget required Michigan to change assessments for the third time in six years.⁴ In its 2017–2018 Guide to State Assessments, MDE has put forth a series of changes in the M-STEP that change the years in which science will be assessed and remove portions of the assessment related to math and writing that focus on problem solving and critical thinking.

These changes will create disruption for teachers and students and make data less reliable for parents and policymakers. Additionally, these changes are not aligned with the goal of making Michigan a "Top Ten" education state. A commitment must be made to stay the course in continuing to increase the rigor of assessments rather than roll them back.

⁴ Michigan's Approach to the Every Student Succeeds Act, Michigan Department of Education, 3 Apr. 2017. www.michigan.gov/documents/mde/Michigan-ESSA-Consolidated-Plan-Overview_558371_7.pdf



High-Quality Learning

Research has shown that states with high-performing education systems recognize the critical importance of continually building and investing in an education system's primary asset, its teachers. As other states increased their expectations in the classroom, they equally invested in professional development and continuing education for their teachers. Their aim? To ensure all educators remain current on the most recent teaching methodologies and are fully versed in the subjects they are instructing. Additionally, systems that provide teachers regular feedback on their performance, enabling them to focus on identified areas for improvement and cross-train others in identified areas of strength, have resulted in better instruction for students.

As other states increased their expectations in the classroom, they equally invested in professional development and continuing education for their teachers.

Michigan's teachers and education administrators are the backbone of the K-12 public education system. The role of educators and their competency in delivering educational curriculum remain crucial to affecting student outcomes. Michigan has recognized this by implementing several policies aimed at strengthening teacher quality:

- 1. **Tenure reform.** Michigan extended the minimum eligibility for tenure from three years to five years in 2011. Additionally, teachers must earn at least three years of effective or highly effective performance ratings to be eligible for tenure.
- 2. Certification reform. In 2013, Michigan redesigned and strengthened its certification examination requirements, putting a greater emphasis on content and practicum mastery.
- 3. Teacher and administrator evaluation. Michigan enacted more rigorous requirements for teacher and principal evaluations under Public Act 173 of 2015, which required the state's development of aligned data systems to inform educator feedback, among other tools and supports for improvement. However, the new system — inspired by Tennessee's system — has not been fully implemented.

These changes are intended to elevate the quality of the teachers in Michigan's classrooms and more closely align teachers' professional development incentives with student achievement. However, as the demands on teacher performance have gone up, there hasn't been a corresponding increase in support for teacher preparation and continuing development.

Currently, Michigan and most other states leave professional development up to individual educators or sometimes the local intermediate school districts. Teachers work to secure a provisional teaching certificate and then, after several years of satisfactory work, earn a professional teaching certificate. In addition to professional certification, teachers receive differential compensation for advanced degrees, typically \$3,000 to \$5,000 per year for a master's degree.





In contrast, Tennessee established a multi-pronged, comprehensive capacity-building strategy so teachers could gain a deep understanding of college and career readiness standards and how to implement them into their classroom instruction. One aspect of their strategy was their teacher training model. Their training model helped jump-start their education reforms which, from 2007 to 2013, ensured Tennessee could achieve a middle-of-the-pack NAEP rating, after many years of ranking near the bottom. Tennessee remained in the top quartile for student growth in three out of four NAEP categories in 2015.

While the training model was merely one component of Tennessee's robust human capital strategy, it serves as an important part of any education evaluation and support system.

The state selected 700 "core coaches," from 1,250 teachers who applied, based on their record of classroom success and a round of interviews. These teachers received extensive training from the state and outside experts in the critical aspects of its new standards and education requirements. That core group of teachers then trained an additional 70,000 teachers who, in turn, cascaded the training throughout the entire teacher workforce over the next three years.⁵

⁵ Lauren Camera, "Tennessee on Dogged Path to Race to Top Finish," Education Week, July 8, 2014.



Tennessee's education leaders cite this training program as a key reason for their student performance improvements. The Tennessee Department of Education did an evaluation of the training and determined that the quality of the teacher's questions, the feedback they gave to students, and the instruction they gave in problem-solving techniques all improved, based on observer rating. Also, student test scores rose more quickly in participants' classrooms compared to those of non-participants.⁶

Michigan should provide effective supplemental professional development opportunities for teachers to improve their craft. The goals of these opportunities should include deepening content knowledge, improving classroom management techniques, learning advanced pedagogical methodologies and aligning curriculum with state standards. These areas of professional development are critically important to achieving meaningful improvements in student outcomes.

To support the revitalization of K–12 education in Michigan, its teachers need access to proven, high-quality curricula that align with the state's standards. Moreover, they need access to the tools and aids required to support expected learning objectives. They need opportunities to work together in teams to learn from each other and from more experienced

Educators deserve and need greater support and training in order to improve their practice. educators. They also need access to technology and tools that allow them to assess student performance data throughout the course of the year, so they can assess student progress and make midyear course corrections. Finally, they need leaders in their schools who can create and maintain a work culture and environment that is conducive to learning.

Full implementation of the statewide educator evaluation and support system will be necessary to ensure all principals and teachers are held accountable for their instructional effectiveness and professional performance. Additionally, educators deserve and need greater support and training in order to improve their practice to meet new teaching standards — specifically around implementing college and career readiness standards and instructional strategies.

Teaching is a difficult profession, and Michigan must pursue strategies and policies that elevate the status of its education professionals and better support them. If Michigan can do this, it will be able to recruit and retain the best and brightest educators in the region.

⁶ Tennessee Trains 30,000 Teachers in the Common Core State Standards, U.S. Department of Education, sites.ed.gov/progress/2013/12/tennessee-trains-more-than-30000-teachers-in-the-common-core-state-standards/.



Adequate, Equitable and Sustained **Classroom Funding**

Education funding is complicated. An overwhelming amount of school funding studies and data is available, and there is a great deal of emotion associated with it as well. In this report, we do not answer the question of what the proper funding levels for Michigan's K-12 public education system should be, but we recognize funding is a primary element that must be addressed to achieve the success we seek.

The correlation between the total amount of money spent on education and the results obtained is generally weak. For example, in 2015, Massachusetts spent \$15,592 per student. In the same year, Minnesota spent \$11,949, Michigan spent \$11,482, Indiana spent \$9,687, Florida spent \$8,881, and Tennessee spent \$8,726 per student.7

The cost to educate students varies considerably, based on their specific background and needs, and this results in the cost structure being unique for every state. Factors such as demographics, overhead structure, facility costs, cost of living, legacy costs (e.g., pensions), number of students requiring special education, transportation considerations, and free lunch programs, among others, must be assessed.

These factors vary not only by state, but by district, school and student. In order to create an equitable K-12 public education system for every student, the state must determine this cost and then perform an assessment of the effectiveness of its current spending. There is not a proven correlation to the total amount of dollars in the system and performance results.

In addition, what should be spent on education cannot be properly calculated until there is agreement on the desired level of student outcomes or performance. For example, aspiring to achieve top ten educational performance levels will likely cost more than average ones.

With this in mind, it would be irresponsible to assume that Michigan will see improved results by simply spending more money on education. Instead, the following steps should first be taken:

1. Utilize the Michigan Adequacy Study⁸ published in January 2018 as a starting point to understand the approximate range of costs to educate Michigan K-12 students.

Failure to acknowledge that the cost to educate students varies considerably based on each learner's specific background and needs will result in an inequitable system and not move the state forward on the goal of improving the K-12 public education system. The study has identified a base cost of \$9,590 per student, but this number needs further vetting to translate it to actual districts, schools and students across Michigan. The findings must also be expanded upon to understand how different cost drivers are factored in, including administrative costs, facilities, legacy costs, etc. The state must better plan for how the funds are allocated. Simply putting more money into the system without a clearly defined strategy on how the money will be spent will likely lead to waste and inefficiency and not have the maximum benefit to student outcomes.

U.S. Census Bureau, 2015 Annual Survey of School System Finances

⁸ Costing Out the Resources Needed to Meet Michigan's Standards and Assessments, School Finance Research Collaborative, www.fundmischools.org

It is important to note that there are two funding numbers referenced in this report. The first reference is to the \$11,482 per pupil that Michigan spent in FY15. The second is to the \$9,590 per pupil recommended by the Michigan Adequacy Study in the preceding paragraph. While the natural inclination is to compare the two numbers and conclude that a decrease in funding is being recommended, the two figures have underlying cost assumptions that are inconsistent. Further reconciliation is required in order to draw conclusions from the comparison of the two numbers. The below chart illustrates what is embedded in each figure and what it represents.

Comparison of Michigan's Current Spending to Recommended Costs in the Michigan Adequacy Study

	Current MI Spending	Recommended Base	Creates an Additional Cost Above Recommended Base?
	\$11,482	\$9.590	
Additional Geographic Isolation Costs	X		Yes
Administrative Costs	X	X	No
Adult Education			No
Major Capital Outlays			Yes
English-language Learner Spending	X		Yes
Employee Benefits	X	X	Not Specified *
Non-elementary-Secondary Programs			No
Poverty Student Spending	Х		Yes
Special Ed Spending	Х		Yes
Teacher Salaries & Wages	X	Х	No
Transportation Costs			Yes

^{*} Study assumes 4.6% pension cost. FY15 Census Data only provides an aggregate amount of "benefits" and does not specify the percentage used to calculate pensions.

2. At the same time, a study on the effectiveness of the current spending must be conducted to ensure that the return on investment is sufficient.

A separate effectiveness study will not only help identify waste in the system, but also can help drive strategic decisions around other areas, such as administrative support.

When sufficient data from these two studies are known, the conversation on how, and how much, to fund the system can begin. Arguing to increase funding to the system before these two questions are answered is unlikely to result in an optimal outcome.



Accountability

There are many levels of accountability throughout the K–12 education system. Effective accountability in education occurs at all levels throughout the system, establishing clear expectations. However, as in any case where expectations are not met, accountability starts at the top in this case with state leaders. As the maxim goes, what gets measured gets done. The benchmark states we studied, implemented a portfolio of changes designed to drive and maintain accountability for a set of high, focused standards.

Leading practices vest leadership for the quality of K–12 education in state government but primary responsibility for the delivery of education to the local and district levels. High-performing states leverage their state education agencies to set standards, enforce compliance and assist in implementation. The most common areas of implementation support include

High-performing states evaluate every K–12 school based on the academic improvement and achievement of its students.

teacher training, principal development and student performance analytics. The most common areas of enforcement include educator evaluation standards and the tracking and publication of school performance data.

High-performing states evaluate every K-12 school based on the academic improvement and achievement of its students. They identify poor-performing schools and intervene on a timely basis to help them improve and hold them accountable. If K-12 schools cannot get their students to a minimal level of proficiency over a period of three or more years, new leadership and, possibly, a new model for educating students is put in place.

Typically, school accountability includes four elements: a school grade, a timeframe to improve, improvement assistance and state takeover. While Michigan has made strides in some aspects, there is room for improvement.

Florida established a leading practice as it relates to measuring school performance. Within the state, every school gets an A–F grade based on student achievement and proficiency. The system, which is easy to understand and transparent, also assigns numerical scores to the subcategories that make up the school's overall rating, including mathematics achievement and language arts achievement, among others. This system allows the state to focus resources and oversight to the schools that need it most.

Michigan has recently introduced the "Parent Dashboard for School Transparency."

Maintaining, improving and publicly advertising the newly introduced dashboard will be critical to its effectiveness. Early indications are the dashboard gives meaningful information and a good demonstration of how specific schools perform against others in the state. Consideration needs to be given about whether the dashboard should give parents information about how Michigan schools rank against others outside of Michigan. Only looking at how schools within Michigan compare to other Michigan schools is omitting an important measure of how

^{9 &}quot;2016-17 School Grades and School Improvement Ratings." 2016-17 School Grades and School Improvement Ratings, Florida Department of Education, Nov. 2017. www.fldoe.org/core/fileparse.php/18534/urlt/SchoolGradesResultPacket17.pdf

Michigan schools more broadly compare to others in the U.S. Additionally, the dashboards need to more clearly define for users what the meaning is behind the percentile ranks. For example, it is difficult for a user to assess whether a school that has 65 percent of its students proficient in a subject is a good, average or poor performance, even if that ranks above the state average. Adding a letter grade to the percentile ranks would be immensely helpful, as is presently done in Florida. Focusing on percentile ranking rather than overall education quality can instill a culture of complacency for schools that have better results than others, but still have room to improve.

The next step, after assessing school performance, is for the state's K–12 governing body to take action when the standards are not being met. Massachusetts has a particularly strong system to take corrective action that has allowed the state to lead the nation in school accountability and turnaround. Massachusetts has spent years researching and evaluating its own school improvement and turnaround efforts and developing a body of professional expertise around this type of work. By building the state's capacity to effectively intervene and actually support the improvement of chronically low performing schools first, Massachusetts has been one of the very few states that has had some success in school improvement and turnaround efforts.





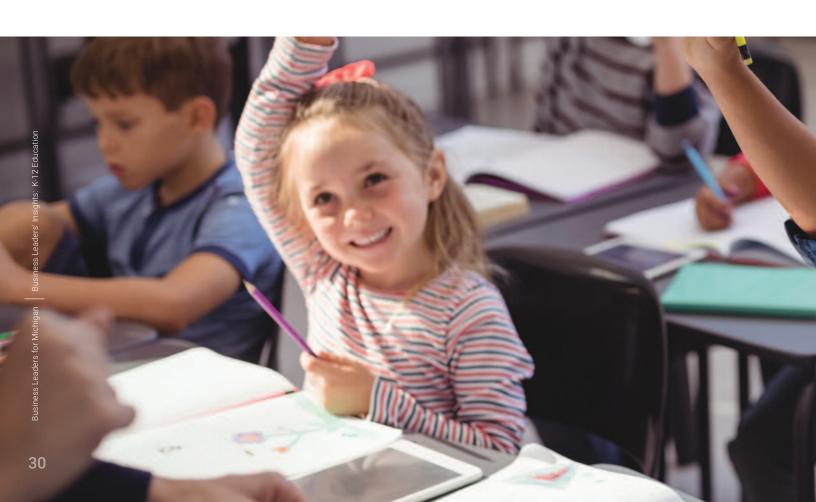
Michigan, by comparison, has a system of intervention that is weak. As a result, poorperforming schools are allowed to persist and educators do not have the tools to improve them.

Michigan's Department of Education (MDE) serves as the K-12 governance system in place at the state level. However, the current structure of MDE creates disconnect with the executive branch of state government which complicates its ability to effectively execute its responsibility.

Michigan is one of five states (along with Colorado, Kansas, Nebraska and Utah) where State Board of Education board members are elected in a partisan vote for eight-year terms. That board appoints the State Superintendent of Public Instruction, who advises the Legislature on education policy and funding needs, is responsible for implementation of bills passed by the Legislature and policies established by the State Board of Education, and serves as the primary liaison to the United States Department of Education and other federal agencies. 10 While the Governor is an ex-officio member of the education board, the position has no authority to direct or implement policies or processes, except through a financial emergency manager when called for at a district level.

Even MDE's bylaws indicate a difference in mission as compared to Massachusetts, which we noted has a particularly strong system of accountability. MDE's directive is to "serve as the general planning and coordinating body for all public education, including higher education, and shall advise the legislature as to the financial requirements in connection therewith."11 In contrast, the Massachusetts Department of Education defines its work as "helping districts

Michigan Department of Education, www.michigan.gov/mde/0,4615,7-140-5373_6526—,00.html.
 State Board of Education By-Laws, Michigan Department of Education, 14 Feb. 2017. www.michigan.gov/documents/bylaws_119443_7.pdf.



implement learning standards, overseeing statewide standardized tests, monitoring schools and districts, and convening districts and individuals to share best practices. In addition, we collect data to inform state and local decisions."¹² This wording highlights an important difference in the accountability and oversight of the governing body between the two states.

There is a legislative framework for accountability in place for Michigan's traditional public schools, but it is complex and inconsistently enforced. The state superintendent has historically been unwilling to take over chronically underperforming schools. The School Reform Office, which was created in 2010 and assists struggling schools with a broad range of issues, was moved from MDE and placed under the control of the Department of Technology, Management and Budget, a department the Governor oversees, in 2015, in an effort to enforce school accountability. However, in 2017, Governor Snyder signed an executive order to return it to MDE.¹³ A study by Steven Hemelt of the University of North Carolina and Brian Jacob of the University of Michigan in August 2016 showed no consistent improvement of reading, math, social studies, or science test scores for schools that were put under the management of the School Reform Office.¹⁴

Like traditional public schools, charter public schools in Michigan are subject to the same academic standards, accountability measures, and educator certification standards and educator evaluation requirements and receive per pupil state funding for their operations. Under the law, charters can be established, or authorized, by any public education institution, traditional public school district or intermediate school district.

12 About the Department, Massachusetts Department of Elementary and Secondary Education, www.doe.mass.edu/About.html.

13 Eggert, David. "Snyder Returns School Reform Office to Education Department." US News, 30 June 2017, www.usnews.com/news/best-states/michigan/articles/2017-06-30/in-reversal-snyder-returns-school-reform-office-to-agency.





There are currently approximately 40 active authorizers in the state. Like all traditional public schools, charters and their authorizers have varying records of performance; so, like all traditional public schools, both charters and their authorizers should be held accountable.

To its credit, MDE has begun to acknowledge the need for systemic changes to its oversight and intervention practices. It has established a partnership model, whereby it partners with school districts and ISDs to come up with goals, strategies and activities to support the needs of the district. According to the MDE 2016-2017 Annual Review, the partnership agreements call for districts to take the lead in developing, implementing and evaluating the goals, benchmarks, strategies and activities included in their agreements. Districts will provide progress reports at 18 months on intermediate measures; then, at 36 months, they will demonstrate improved academic outcomes and improved outcomes on other measures. MDE liaisons and cross-office experts provide support as needed to help ensure district success.¹⁵

ISDs, which were established in 1962, are structured as separate taxing units to provide various administrative and instructional services to local school districts. All Michigan ISDs have elected board members. However, unlike school board members in local school districts who are elected by the residents of a given school district, many ISD boards of education are chosen by the board members of each local school district within its borders. Each ISD has a superintendent who is hired by the board of education. ISDs typically provide services in accounting and auditing of student numbers for each district, oversight of special education for local school districts and career technical education and career preparatory programs. 16

While having a function like ISDs is not unusual when looking at other states' education systems, the way in which Michigan's ISDs operate is unique. Michigan has 56 ISDs, whereas Minnesota has six Regional Centers of Excellence, Tennessee has eight Centers of Regional Excellence (CORE) offices, and Florida has four regional teams of school improvement specialists.

There are two main ways where Michigan's ISDs differ when compared to the other states. First, ISD responsibilities vary and their statutory role is broadly defined. While there are certain things that all ISDs do, the breadth of services ISDs perform is not uniform. For example, the Kent County ISD in Grand Rapids provides general education services in professional development activities for administrators, teachers and staff, and various advisory committees help determine district needs. The Bay-Arenac ISD, on the other hand, offers career technical education, professional development activities, curriculum development assistance, grant writing expertise, and pupil accounting.¹⁷ The variability in work performed, which is a function of the number of ISDs and the way they are structured, makes it harder to share best practices and provide the most value to students. The other states have a smaller number of offices that work as an extension of their state's department of education with a more focused objective.

¹⁴ Hemelt, Steven W, and Brian A. Jacob. Differentiated Accountability and Education Production: Evidence from NCLB Waivers. Aug. 2016, inequality.hks.harvard.edu/files/inequality/files/jacob16.pdf

¹⁵ Michigan Department of Education Annual Review. www.michigan.gov/documents/mde/2016-2017_MDE_Annual_Review_580431_7.pdf.

Brouillette, Matthew J. What Are Intermediate School Districts? Mackinac Center for Public Policy, 10 Feb. 2000, www.mackinac.org/2709.
 Brouillette, Matthew J. What Are Intermediate School Districts? Mackinac Center for Public Policy, 10 Feb. 2000, www.mackinac.org/2709.

¹⁸ DeGrow, Ben. How School Funding Works in Michigan. Mackinac Center for Public Policy. 19, July 2017, https://www.mackinac.org/23785

The second area is the cost of the ISDs. ISD revenues in 2016 totaled \$2.77 billion¹⁸ with no clear understanding of how those costs impact classroom learning. With 56 offices that have various scopes of work, it is extremely difficult to measure the effectiveness of this category of

Everyone in the system should be accountable in fulfilling the responsibilities they have been given, which is to provide a high-quality education to all students.

funding. For the partnership model established by the MDE to be beneficial, it is imperative that efficient action plans are put into place and that the results are measured.

In order for a system of accountability to be effective, it needs to include all stakeholders in the system, including leadership, ISDs, traditional public and charter public schools, and charter public school authorizers, among others. Everyone in the system should be accountable in fulfilling the responsibilities they have been given, which is to provide a high-quality education to all students. To improve school accountability, Michigan should ensure that both traditional public and charter public schools be evaluated on their ability to educate their students to exceed the minimum level of proficiency, and actions must be taken when the standards are not being met. The grading and intervention should be simple,

honest and unambiguous. Likewise, an evaluation should be conducted of how money is being spent in Michigan's complex education system to determine whether more money can be directed to the classroom and strengthen accountability at all levels for delivering results.





In many areas, Michigan has made substantial progress putting in place these core capabilities of K-12 education excellence.

Over the past several years, Michigan has enacted significant reforms that address state standards, teaching requirements, tenure requirements, professional evaluation, school accountability and a longer school year. Most of Michigan's recent K–12 reform legislation is consistent with the core elements of an education excellence model. But student performance continues to decline

Why is this? The answer lies not in what Michigan has already put in place, but in the issues that remain unaddressed. Based on an assessment of current education reform literature, interviews of Michigan's education stakeholders and benchmark analysis of America's leading education states, we have identified a set of policy principles that can be used to guide the prioritization and development of high-impact actions that Michigan's education leadership can use to address student achievement gaps. They are organized in the same four categories as the model of core elements for education excellence.



High Student Standards and Aligned Assessments

High standards are the cornerstone of performance improvement. In 2014, Michigan replaced its MEAP test with the M-STEP assessment. The M-STEP is based on the K-12 standards developed by a nationwide committee of America's foremost education professionals and mirrors the standards used by America's most successful states, as measured by the NCES. Based on feedback from our interviews, within Michigan and from other benchmark states, the Career & College Ready standards are an excellent set of standards for Michigan's students and should be maintained. But Michigan is not finished:

Potential Action

Keep and strengthen the M-STEP

Michigan Department of Education plans to change to a different assessment in 2018. This is a step backward for three reasons:

- The move would mean more change for students and teachers
- Michigan loses the ability to track performance changes from year-to-year when the assessment test changes, and
- The M-STEP was already designed to be the highest quality assessment, consistent
 with best practices from around the country. Michigan would lose the ability to compare
 across states that use similar assessments. Changing assessments, particularly by
 moving away from a recognized good assessment, does not benefit Michigan's students.



High-Quality Learning

Transforming an organization starts by focusing on the quality of the end product. In education, the end product is student learning, and that happens in the classroom. To that end, we suggest Michigan's education stakeholders focus on the following to improve learning outcomes in the classroom:

Potential Actions

Effectively train teachers on Michigan's standards

Teachers are the linchpin in our education delivery model. It is imperative that Michigan's teachers understand Michigan's standards and align their curricula to support student's mastery of content consistent with these standards. They cannot do this on their own. They will need effective professional training and support from their districts and from the state.

Empower professional development

It bears repeating: teachers are the linchpin in our education delivery model. The state and the districts owe it to these professionals to use the evaluation process as a professional development tool, not a means to punish unsatisfying outcomes. Performance evaluations should be used to identify any areas for improvement and drive continuous growth and development. No matter how good an employee is, he or she can continue their development in mastering their craft.

Improve access to technology and data

To effectively manage a problem, tools need to be in place to measure it. Teachers need a consistent data system that will allow them to analyze and assess student progress on a regular basis and make midyear course corrections as the need arises.

Provide leadership training for principals

Leadership is second only to classroom instruction among all school-related factors that contribute to what students learn at school. Principals need to be provided training opportunities to attain the right set of skills to be effective instructional leaders. This is imperative to ensuring they are fully equipped to provide teachers the support and opportunities they need to improve.

Recognize performance

Recognition is a powerful way to get everyone in an organization pulling in the same direction. There are several ways to do this: professional recognition, civic stature, etc. The goal is improved student outcomes. Michigan should elevate and publicly celebrate professional recognition for teachers, principals and schools that achieve outstanding student improvement.

Implement teaming culture

Few, if any organizations, achieve sustained success without pervasive teamwork. Education is not an exception. The best private, traditional public and charter public schools all utilize educator teaming to accelerate professional development and improve instructional quality for the benefit of their students. Michigan should adopt the best practices related to educator teaming, and support rollout of these practices across Michigan's districts.



Adequate, Equitable and Sustained Classroom Funding

Adequate funding is essential for any organization to accomplish its mission. Education is no exception. Michigan currently funds education at approximately the national average on a per pupil basis. Michigan also funds its schools principally from state resources, decoupling school funding from the more common and highly inequitable practice of tying school budgets to local real estate taxes. These two facts suggest that Michigan's students should be getting the resources needed to achieve at least average levels of performance. But that is not happening.

Potential Actions

We advocate a two-pronged approach:

Re-assess costs to educate Michigan students

Michigan's students, parents and citizens deserve to know how much money is needed to properly educate the full spectrum of Michigan's students; rural, urban, gifted and special needs, to name a few. A study commissioned by the School Finance Research Collaborative has been recently completed and indicated a base cost of \$9,590. However, this number is meant to be directional and will need to be further translated to be applicable directly to the current state within Michigan schools. By doing this, even if by use of limited case studies, the state will have a firmer grasp on the cost to implement a new funding model.

Make the most of current funds

The state should undertake a comprehensive study of education expenditures to determine where districts and schools can look to redirect more resources into classroom and direct student learning functions. With such a large and complex education delivery system, it stands to reason that there are opportunities to consolidate services and reduce overhead costs making more funding available for additional classroom investments.



Accountability

Accountability for outcomes is critically important. Michigan has put in place some elements of accountability, such as educator evaluation requirements, teacher certification requirements and school performance report cards. But these have not turned around the performance of Michigan's schools. There are additional levels of accountability that Michigan still needs to address in an integrated manner:

Potential Action

Support and maintain a uniform set of performance and accountability standards for all stakeholders in the K-12 education system

All levels of authority need to be held accountable for delivering results. It is important to establish clear lines of responsibility from the Governor and legislature to the MDE, ISDs, charter school authorizers, districts and schools. In order to be able to assess performance, there should be clear and transparent reporting of results (i.e., report card) for each level of authority.



A sustained effort. Debate continues to swirl among Michigan stakeholders about the validity of standards, accountability of schools, teacher evaluations, role of choice and other topics. These dissonant forces confuse the public and prevent Michigan's stakeholders from coalescing and getting on with the urgent task of educating Michigan's students.

There are a multitude of stakeholders, including teachers, school boards, parents, administrators, business leaders, superintendents, elected officials, taxpayers, collective bargaining agents, suppliers, philanthropic leaders, federal government representatives, etc. And of course, there are the most important stakeholders — the only stakeholders who do not have a direct voice in this enterprise — the students. Each stakeholder group sees the K–12 education crisis from different, and sometimes, conflicting, perspectives.

Many of these stakeholder arguments have merit, especially when they are evaluated in isolation from the whole. However, the fact remains that the elements — as implemented by other states — have successfully improved student performance statewide and across racial and socio-economic groups. If Michigan is going to address its K–12 education crisis, a large majority of its stakeholders must unite in support and bring with them all of the resources at their command.

As the leaders in the states that have raised their K–12 student performance rankings have pointed out, with great clarity reform is hard. Michigan needs to be prepared to stick with an initiative because it takes several years to see results.

Conclusion

Before Michigan can revitalize its K-12 education system, it needs a destination — a benchmark for K-12 excellence and accountability.

The intent of this study is to look forward and find a path to a better future for Michigan and its children. It seeks to determine not only how to repair the state's K–12 education system, but also how to raise it to new heights. To reclaim its heritage as an innovative and vibrant economic hub, Michigan can't be satisfied with fixing cracks in its K–12 education system; it must rebuild the system in a way that produces a culture of educational excellence and ensures that every child will be prepared for a successful life and career.

Resources

Research and analysis for this report was conducted by PwC in collaboration with Business Leaders for Michigan. The data presented in this report come from several sources, most of which is publicly available.

- Bill & Melinda Gates Foundation
- Bridge Magazine
- Brooke Charter Schools
- The Brookings Institution
- Center for Reinventing Public Education
- The Center on School Turnaround at WestEd
- Detroit Regional Chamber
- Education Development Center
- Education Policy Analysis Archives
- The Education Trust Midwest
- Education Week
- Fastback 276
- Florida Department of Education
- Hemelt, Steven W, and Brian A. Jacob
- The International Academy of Education
- K-Connect
- Mackinac Center for Public Policy
- Massachusetts Department of Education
- Michigan 21st Century Education Commission
- Michigan Department of Education
- National Center for Education Statistics
- National Center on Education and the Economy
- National Comprehensive Center for Teacher Quality
- National Conference of State Legislatures:
- National Governors Association
- RAND Corporation
- Talent 2025
- U.S. Census Bureau
- US Department of Education
- U.S. News and World Report



