MICHIGAN VIRTUAL

Improving Learning. Improving Lives.

MICHIGAN VIRTUAL UNIVERSITY

ANNUAL REPORT: 2016-17

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About *Michigan Virtual*

Michigan Virtual™, formally *Michigan Virtual University®,* is a nonprofit 501(c)(3) organization that supports the growth and development of digital learning in Michigan's K-12 schools. We initially served to demonstrate and document the benefits of online learning. More recently, we have invested significant time and resources to build awareness of and access to effective online learning opportunities for Michigan's K-12 schools and students.

Michigan Virtual provides a three-pronged approach to virtual learning. Since 2000, *Michigan Virtual* has been serving Michigan's K-12 community with online courses for high school and middle school students. As an accredited state virtual school, *Michigan Virtual* has recorded over 233,000 online course enrollments and is expecting to celebrate its 250,000th student enrollment during the 2017-18 school year. Unlike full-time virtual programs or cyber schools where students take 100% of their courses online, *Michigan Virtual* offers a supplemental program where students average less than two online courses per year, most often enrolling because the course was not available in their traditional school.

Michigan Virtual also has a long history of providing professional learning services to Michigan districts through both innovative online courses and face-to-face offerings. In this capacity-building role, *Michigan Virtual* partners with schools to provide educator training, develop and implement blended learning models, and identify and enact best practices in technology integration. Through this role, *Michigan Virtual* is one of the statewide leaders in providing educators with the required professional development hours necessary for renewal of their teaching certificates.

The final prong is *Michigan Virtual*'s long history of working with Michigan's K-12 community and policy leaders to help make Michigan a leader in innovative education and forward-thinking policies. Early on, *Michigan Virtual* served primarily as a change agent when most school leaders and parents were not familiar with online learning. This work continues today with leadership from the *Michigan Virtual Learning Research Institute®* (*MVLRI®*), which was formed in 2012 to expand Michigan's capacity to support new learning models, engage in active research to inform new policies in online and blended learning, and strengthen the state's infrastructures for sharing best practices.

Michigan Virtual recently completed a strategic planning process culminating in the publication of a three-year strategic plan[1]. As part of the strategic planning process, *Michigan Virtual* received feedback from over 400 external stakeholders. The revised mission for the organization is to advance K-12 digital learning and teaching through research, practice, and partnerships. The organization's vision is that every person can use digital learning to reach his or her full potential.

This Annual Report provides highlights of *Michigan Virtual*'s student learning, professional learning, and research activities for the 2016-17 fiscal year.

Student Learning

Student Online Learning in Michigan

Before detailing the impact of the *Michigan Virtual*'s student learning efforts, it may be valuable to provide a statewide snapshot of virtual learning for K-12 students. Based on data[2] from the 2015-16 school year, we know that:

- 570 Michigan public school districts reported at least one virtual enrollment.
- Of the 1,026 schools with virtual enrollments, over half had 100 or more virtual enrollments.
- Almost 91,000 Michigan K-12 students took at least one virtual course in 2015-16, totaling over 450,000 virtual enrollments.
- Schools are disproportionately enrolling students in poverty into online courses. On average, schools tend also to be enrolling students who are struggling academically in their face-to-face courses or for a subject in which a student has failed rather than for advanced coursework or for a subject in which the student is proficient.
- The overall pass rate for virtual courses was 58%; however, over half of the virtual learners — more than 45,000 students — passed every virtual course they took. The pass rate is low because of cases where students are being provided with large numbers of virtual courses without passing any of them. Restricting the number of virtual courses a student can take to one or two at a time until the student demonstrates successful completion might dramatically improve the statewide pass rate.
- Some districts are clearly more effective in using virtual learning than others. Twenty-eight percent of districts with virtual learning had virtual pass rates of 90% to 100%.

From a policy perspective, there are two main drivers of virtual learning in Michigan schools. The first is that Michigan students are required to have an online learning experience in order to graduate from high school. This requirement was adopted in 2006 as part of the Michigan Merit Curriculum (MMC) and was intended to prepare K-12 students for the digital world they will encounter in higher education, their future workplaces, and their personal lives.[3] Schools were provided with flexibility in how they could fulfill the online learning requirement — in part due to the vast difference in technology access and readiness of schools in 2006. The options included:

1. Take an online course.
2. Complete a meaningful online experience of at least 20 hours.
3. Complete the meaningful online experience of at least 20 hours incorporated into the required courses of the MMC.

While Michigan was the first state in the country with such a requirement, several other states have since followed suit.[4] These states have adopted more stringent requirements than Michigan, requiring students take an online course rather than have a 20-hour minimum experience.

The second policy driver has been Section 21f the State School Aid Act[5]. Since 2013, Michigan public schools have been required to honor parent or student requests for enrollment in up to two online courses per academic term or more if parents, students, and school leadership agree that more than two are in the best interest of the child. Eligible courses for enrollment include those published in the student's school district's catalog of board-approved courses or from those in a statewide catalog of virtual courses.[6]

Research suggests that despite these two policies existing for some time, Michigan adults are not very informed about them. A survey with 800 Michigan adults in the winter of 2016[7] found that only 22% of those surveyed were aware of Michigan's online learning graduation requirement and less than 40% were aware that middle school and high school students were allowed to take up to two online courses per academic term. Despite the lack of awareness, these same adults tended to hold a favorable view of online learning including 80% indicating that it was either very important (38%) or somewhat important (42%) for students in middle school and high school to have the option of enrolling in an online class at their local district. Seventy-one percent of respondents either strongly agreed (39%) or somewhat agreed (32%) that their local school district should offer more online courses for middle and high school students.

Michigan Virtual Student Learning Fast Facts for 2016-17

- Over 15,000 students benefited from taking an online course through *Michigan Virtual.*
- Over 25,000 student enrollments were delivered to Michigan students.
- On average, students take less than two virtual courses with *Michigan Virtual* during a school year.
- Over half of Michigan LEA Districts used *Michigan Virtual* for student courses.
- Students enrolled in 220 different online courses.
- Students were most likely to take a *Michigan Virtual* course because it was not available locally.
- The pass rate for *Michigan Virtual* courses was 84% — well above the statewide virtual learning pass rate of about 60%.

Students

A total of 15,284 students took online courses with *Michigan Virtual* in 2016-17. About 58% of the students were females. Together, these students accounted for 25,712 course enrollments. Thus, students averaged 1.7 enrollments, a statistic that aligns well with *Michigan Virtual*'s supplementary mission. Fifty-three percent of students using *Michigan Virtual* took only one course.

Districts

Student enrollments came from 391 Michigan districts including 310 local education agency districts (LEA districts), 38 public school academy districts (PSA districts), seven intermediate school districts (ISDs), and 36 nonpublic schools. As a point of comparison, based on data available through the Center for Educational Performance and Information's (CEPI) Educational Entity Master website[8], in November 2017, there were 546 open-active LEA districts, 294 PSA districts, 56 ISDs, and 644 nonpublic schools. Using these counts as estimates for the 2016-17 school year, *Michigan Virtual* served approximately 57% of the LEA districts, 13% of the PSA districts, 13% of the ISDs, and 6% of the nonpublic schools. A complete list of Michigan districts served in 2016-17 is included in Appendix A, Figure 1.

Michigan schools accounted for 23,730 enrollments with the number of enrollments from a school ranging from a single enrollment to 959 enrollments. The average number of enrollments per school was 46. Additionally, *Michigan Virtual* had 1,715 enrollments from Michigan parents or guardians directly enrolling their children in online courses. Students in 77 of Michigan's 83 counties were supported with online learning opportunities through *Michigan Virtual*. For a map of locations where students and schools were served, see Figure 2 of Appendix A.

In addition to serving Michigan students, some non-Michigan students also took courses with *Michigan Virtual*. There were 124 enrollments generated from 14 non-Michigan schools as well as 143 enrollments from non-Michigan parents or guardians for their K-12 children.

Courses

Students enrolled in 220 different online courses with *Michigan Virtual*. These online courses included titles offered during the fall, spring, and summer. The list included core academic courses specifically aligned with the MMC, Advanced Placement® (AP®) courses, credit recovery courses, and summer enrichment experiences for students. These online courses included those developed by *Michigan Virtual* as well as courses and content licensed from nationally-recognized providers. The majority of courses (82%) were offered at the high school level, though 39 online courses were specifically available for middle school students. The full listing of the online courses used by Michigan districts and students during 2016-17 is available in Appendix A, Figure 3.

Approximately 45% of enrollments chose "course unavailable at local school" as the reason the student was enrolling in the online course. None of the other enrollment reasons — scheduling conflict, learning preference of the student, credit recovery, or other — accounted for more than 25%. Only three percent of enrollments were identified as credit recovery.

Pass Rates

Michigan Virtual had an 84% pass rate for the year. In calculating the pass rate, enrollments were removed for courses that were not available for credit (enrichment courses) or for cases where credit or a grade were not attempted. This included only 147 enrollments. Of the 25,565 attempted enrollments, 25,226 were from students who finished or remained enrolled in the course through the last day for a 99% completion rate. In terms of course success, 21,566 of the 25,565 enrollments earned 60% or more of the total course points for an overall pass rate of 84%. To put that pass rate into perspective, the statewide pass rate for virtual courses since the 2010-2011 school year has hovered around 60%.

From a subject area perspective, *Michigan Virtual* maintains above an 80% pass rate for each of the four core subject areas:

- English Language and Literature = 81%
- Life and Physical Sciences = 83%
- Mathematics = 83%
- Social Sciences and History = 88%

For comparison purposes, the statewide pass rates[9] for online courses from all providers for each of the four core subjects ranged between 52% to 59%. Appendix A, Figure 4, shows the *Michigan Virtual* pass rate for each subject area. A full list of the 2016-17 *Michigan Virtual* student pass rates by course title is also provided in Figure 3 of Appendix A.

With the exception of credit recovery, the *Michigan Virtual* pass rate remained fairly stable across enrollment reasons. Students taking an online course to resolve a scheduling conflict had the highest pass rate at 89%, followed closely by those enrolling because the course taken was unavailable locally (86%). The enrollment reasons of "learning preference of the student" and those choosing the "other" reason both

had pass rates of 83%. Credit recovery enrollments had a pass rate of 59%. Figure 5 of Appendix A contains a complete list of how pass rates varied by subject area and enrollment reason.

Pass rate also varied by district. Using Michigan LEA districts as an example, 142 of the 310 (46%) districts had a districtwide pass rate of 90% to 100% with *Michigan Virtual* student online courses. An additional 74 districts had pass rates of 80% to 90%. Thus, about seven in 10 LEA districts had a pass rate of 80% or greater when using *Michigan Virtual*. There were 32 districts that had pass rates of less than 60%. Of those, only 11 had double digit enrollments. Fourteen of those 32 districts had pass rates of less than 10% with 12 of the 14 having three or fewer enrollments. Figure 6 of Appendix A includes a chart displaying the distribution of district pass rates.

Current Initiatives

Michigan Virtual is expanding its catalog of student learning opportunities for 2017-18 to better meet the needs of schools and students across the state. A prominent example of this expansion effort can be seen in the collaborative effort between *Michigan Virtual* and St. Clair County RESA. St. Clair County RESA's LearnON[10] initiative is a groundbreaking partnership, coordinated countywide through St. Clair County RESA to connect each of the county's seven public school districts with online learning options powered by *Michigan Virtual*. One of the goals of the program is to increase student engagement and achievement through the implementation of personalized and blended learning strategies. This is achieved through offering *Michigan Virtual* courses to students that are taught by local teachers in the seven St. Clair County school districts. These teachers are provided with professional learning and coaching throughout the year focused on how to engage, motivate, develop relationships, and provide effective feedback to online students while implementing research-based best practices. *Michigan Virtual* is working to identify new partner districts to grow new collaborative models for the 2018-19 school year.

During the 2017-18 school year, *Michigan Virtual* is offering the nationally-recognized EdReady™ program to help students in grades 4-12 to master a range of math concepts. EdReady can be used by individual students or as part of a school-wide program to assess math skills, map strengths and weaknesses, provide personalized instruction that targets knowledge gaps, and prepare students to achieve their college and career aspirations. The program can be used for intervention, in blended classrooms, or to facilitate a student's independent learning. It is an ideal online tool for a Response to Intervention (RTI) model as it allows teachers and intervention specialists to design a personalized study path during Tier 2 (small group) and Tier 3 (individualized) academic intervention sessions in a school's Multi-Tiered System of Supports (MTSS).

After piloting a credit recovery solution in the 2016-17 school year, *Michigan Virtual* is offering 27 foundational courses that meet Michigan high school standards and content expectations and are targeted at increasing the likelihood that students will successfully recover credits required to graduate high school. Unlike most credit recovery products, *Michigan Virtual*'s courses include Michigan-certified, highly-qualified online teachers, endorsed in the subject area and grade level. The courses also include comprehensive student orientation modules structured to ensure that students understand how to navigate the online environment, communicate effectively with their online instructors and set individualized pacing goals. Mentor training is also provided at no additional cost.

Also new for the 2017-18 school year are middle school bundled short courses. In total, there are over 50 short courses available, offering units of study that last between one and eight weeks. Schools can select

among these courses within five bundled paths that meet their six-, nine-, 12- or 18-week term needs. The five bundled paths include Positive Behavior Intervention & Supports (PBIS), Literacy Skills & Literature, Honors Literacy Skills & Literature, Success Skills for the Real World, and Digital Literacy & Programming. These bundles provide flexible options to personalize school's offerings to meet both content and scheduling needs for middle school exploratory ("specials," or "electives") learning rotations or for embedded online, digital, 21st-century learning experiences within regular courses.

Professional Learning

Online Professional Learning in Michigan

Just as Michigan K-12 students are benefiting from online learning, so too, are Michigan K-12 educators and school personnel. Districts throughout Michigan find themselves challenged with crafting professional learning opportunities specific to the needs of their individual teachers and their student populations while simultaneously dealing with little release time for teachers, a shortage of substitutes, shrinking budgets to pay such professional learning expenses, and increasing expectations for student achievement. These realities have leaders looking for opportunities that accelerate and increase the effectiveness of professional learning throughout their building, district, or ISD/RESA. Online and blended solutions are one of the opportunities leaders are leveraging to accomplish their goals.

In addition to district-level professional learning efforts, statewide initiatives are also using online learning to rapidly transform teaching and learning in Michigan. An example is the state's Early Literacy work. To address Michigan's third grade reading proficiency rates, a collaborative taskforce has committed to creating resources aimed at improving the literacy skills of Michigan students. Through literacy coaches, web-based resources, and online professional learning modules, Michigan Pre-K-3 educators will gain knowledge and skills in 10 research-based literacy essential practices. By leveraging online resources and training, the state can more quickly, and with greater fidelity, train the over 30,000 Michigan educators serving Pre-K-3 students in these practices and turnaround the literacy rates for students.

Barriers and Opportunities for Professional Development

While online and blended solutions present opportunities for high-quality training at scale, they also present some challenges. The trend of decreased reliance on State Continuing Education Clock Hours (SCECHs) as the primary record of professional development continued through the 2016-2017 school year. Educators are receiving the majority of their formal professional learning through district or ISD/RESA supported learning opportunities rather than seeking out their own supplemental learning opportunities. There are advantages to this model, as school districts are able to guide professional learning that is intentionally aligned to the goal-driven needs outlined in their school improvement plans. As a direct result, educational leaders are finding themselves looking for professional learning experiences that are aligned to their team needs. Districts have begun to explore the use of digital learning to make these experiences more meaningful and have a greater impact on the learning of all adults within their system.

While alignment with district needs is essential, educators and school leaders are also driven by their own personal learning goals and by the needs of the students with whom they are working directly. Balancing the needs of an entire district while also providing personalized learning options for every teacher is an exciting and ongoing challenge for the current system. Many educators are seeking ways they can learn in a more individualized and personalized manner, and digital learning options can provide this to teachers

within a district. Using digital systems, like a learning management system for professional learning, teachers are able to make their own learning reach beyond the staff meeting, professional development day, or conference experience. While teacher evaluation systems are a sensitive topic, the attention to specific and individual goals have driven educators to press for individual learning experiences as well.

The attention to goal-driven professional learning has many districts turning their attention to reducing the amount of "sit and get" and "one-size-fits-all" professional learning. As school leaders realize the power of personalized learning for students, there is growing recognition that adult learning within a district should also be personalized to fit the needs of each educator. This realization is driving conversations about 24/7 learning tools that can provide flexible access to multiple learning experiences throughout the district. Some districts and educators are getting involved in online professional learning communities (PLCs). Opportunities like these are providing districts with ways to provide professional learning effectively at scale while increasing the transfer of learning to classroom practice. New learning opportunities are being considered and designed to formalize educators' informal learning around their own self-developed goals and ask for evidence of learning as part of the process.

In addition to the benefits of personalized and individual learning experiences for educators, online learning is helping some districts overcome the additional challenge of releasing teachers from their classrooms to attend professional development. The significant shortage of substitutes in Michigan leaves schools reaching out for alternative learning opportunities in order to keep teachers in their classrooms. This has been a key driver for the districtwide use of online systems for formal learning experiences and also for informal learning, such as PLCs.

A final challenge currently facing Michigan also plays out in the national conversation around professional learning, funding, and systemic support for educators. The proposed cuts to the Every Student Succeeds Act (ESSA) and Title II funding has had a significant impact on district decisions regarding professional learning. One of the strengths of ESSA is the authorization of professional learning by aligning Title II funding to evidence-based requirements and more rigorous definitions of professional development. This pairing has the potential of a positive impact on the quality of professional learning experiences that districts offer. Any additional cuts to Title II, specifically Title II, Part A, would cripple Michigan's implementation of ESSA. Title II, Part A provides critical funding to states for the purposes of preparing, training, recruiting, and retaining high-quality teachers, principals, assistant principals, and other school leaders[11]. Reduction in Title II funding would greatly reduce the amount of support for professional learning processes throughout Michigan, having a direct impact on additional adoption of personalized and blended learning strategies and pedagogy. A fully supported ESSA and Title II address the significant need for effective professional development, which is intensive, ongoing, and aligned with school improvement goals.

Michigan Virtual Professional Learning Fast Facts for 2016-17

- *Michigan Virtual* delivered enrollments in over 300 online courses through its Professional Learning Portal by September 1, 2017.
- There were over 26,600 online enrollments from those 300 online courses.
- Online professional learning enrollments represented close to 73,000 completed SCECH hours and over 15,000 completed non-SCECH hours of online professional learning.

- Use of *Michigan Virtual*'s online professional learning offerings was widespread. Educators enrolled from 96% of the state's ISDs, 72% of the LEA districts, 53% of the PSA districts, and 33% of the nonpublic schools.
- Over 2,000 attendees representing Michigan educators, school personnel, and school board members participated in face-to-face learning events put on by *Michigan Virtual* through the year.
- Over 20 ISD/regional trainings on effective online and blended learning practices were delivered throughout the state this fiscal year.
- Seven Mentor Site Institutes as well as multiple ISD trainings were facilitated to deepen the professional role of the mentors of online learners.
- Four partner school districts continue to collaborate with *Michigan Virtual* on successful district-wide implementation of blended learning for all students.

Professional Learning Activities

Through *Michigan Virtual's* Professional Learning Portal, Michigan educators, school personnel, and school board members accessed over 300 high-quality courses from Michigan-based or national leaders in specific content areas or learning methodologies. Course titles range from non-SCECH courses on the dangers of bloodborne pathogens or basic first aid to SCECH courses on implementing effective instruction or teaching in the blended and online classroom. Across these courses, *Michigan Virtual* had over 26,600 enrollments and delivered close to 73,000 SCECH hours of professional learning and over 15,000 non-SCECH hours of learning. A list of course offerings with enrollment counts is presented in Figure 1 of Appendix B.

These online professional learning enrollments came from people who reported being affiliated with 54 ISDs, 393 LEA districts, 156 PSA districts, and 212 nonpublic schools. These data points suggest *Michigan Virtual* served approximately 96% of ISDs, 72% of the LEA districts, 53% of the PSA districts, and 33% of the nonpublic schools. A complete list of Michigan districts served in 2016-17 is included in Figure 2 of Appendix B. A map showing the locations of these districts is provided in Figure 3 of Appendix B.

An example of a new online offering for this past year can be seen in the *Teaching with Poverty in Mind* book study courses. The book study was a collaborative project with the General Education Leadership Network (GELN), Michigan ASCD, MDE, and school improvement experts throughout Michigan. Through the online environment, schools were able to coordinate and collaborate as they read and engaged in deeper study of Eric Jensen's book on poverty. *Michigan Virtual* has since provided the book study to school districts who have requested the opportunity to host their own sections. The course now has facilitator guides to help district leaders as they facilitate the learning and is coupled with the systems and support necessary to create a meaningful learning engagement for all.

Building on the popularity of this book study, *Michigan Virtual* has engaged in the development of additional online book studies. Districts can deploy these book study resources for their teachers throughout multiple buildings and grade levels as a way to create a flexible but organized learning opportunity around a topic. Feedback from district leaders suggests they are enjoying the manner in which this creates a safe space for collaboration and discussion without requiring the face-to-face time that makes professional development activities difficult for teachers to attend.

Another way *Michigan Virtual* is delivering innovative online professional development is with MyPD. MyPD is a formal way to honor the informal learning that educators embark on every year. School districts

can deploy MyPD for the entire district as a way to structure informal learning, support teachers in their learning, and provide feedback on submitted evidence of learning. Soon, individual teachers throughout the state will be able to use MyPD on a personal basis to gain SCECHs as *Michigan Virtual* is collaborating with MDE to make the structure fit inside current SCECH policies and regulations.

The MyPD program is a small step in the journey toward implementing a professional learning system in Michigan that values competency-based professional learning, including micro-credentials. Micro-credentials provide educators with formal recognition for the attainment of concrete instructional and educational competencies through job-embedded professional learning in the form of digital transcripts and badges and are a tool to shine a light on educators' earned and vetted competencies. What make these learning experiences micro is that they tend to take a fraction of the time to obtain compared to a traditional credential because they are certifying a specific competency or small subset of competencies rather than an entire domain of competencies. This past year, *Michigan Virtual* partnered with the Michigan Association of School Administrators (MASA) to build their first micro-credential course on Crisis Communication for central office administrators. Work to develop a micro-credentialed, competency-based, professional development with the Michigan Association for Computer Users in Learning (MACUL), Michigan Association of Secondary School Principals (MASSP), Michigan Assessment Consortium (MAC), and the Early Literacy project also began during this last year and is ongoing.

In addition to online professional learning work, *Michigan Virtual* engages with school districts, ISD/RESAs, and individual educators as they work to implement technology more effectively for their students. This work includes the support provided to mentors of online learners throughout the state, support for blended learning implementation plans at the district or school leadership level, and classroom teacher support for effective classroom implementation of technology. *Michigan Virtual* supported an online PLC for online mentors, hosted immersive events at school districts to showcase best practices in action, supported regional online mentors to build awareness and outreach capacity throughout the state, and served as a research and support engine for best practices in online mentoring and successful support programs for online learners. Regional mentor leaders were engaged to provide on-site training opportunities for mentors to see a variety of online programs, from credit recovery, supplemental, and alternative education, in action. Seven Mentor Site Institutes and four ISD trainings were held across the state to deepen understanding of the professional role of mentors for online learners.

Michigan Virtual also hosted over 20 additional regional training events at locations such as ISDs on the topic of blended learning implementation. *Michigan Virtual* coaches also worked with educators from all grade levels on how to use technology effectively to meet the needs of every student. As an example, *Michigan Virtual* hosted its third annual Day Camp[12] in July, with a focus on how teachers can utilize technology to support the students that need it the most (i.e., those in poverty, struggling with literacy). Speakers included exemplary blended teachers as well as well-known technology and literacy advocate Pernille Ripp. Over 130 educators attended the event.

Michigan Virtual has also made a significant commitment to coaching school leaders and educators on how to use technology to personalize and differentiate instruction for improved educational outcomes of all students. This professional learning prioritized locally-created or locally-controlled content and program development. *Michigan Virtual* closely partnered with four school districts in an embedded and collaborative manner to create and enact school and district-wide blended learning implementations. This

work led to lessons learned about whole-district change and the impact that a well-developed professional learning program can have on teaching and learning throughout a system.

Other Current Initiatives

Beginning in December 2016, *Michigan Virtual* forged a collaborative partnership with the MDE focused on identifying and developing innovative, scalable, and sustainable online professional development opportunities for Michigan educators. Examples of opportunities identified for this year include Michigan assessment training modules for state assessment facilitators, professional learning modules on the use of seclusion and restraint in Michigan schools, formative assessment modules to introduce key assessment concepts to all Michigan educators, and social/emotional learning modules for educators.

To further the reach of innovative blended professional learning opportunities for Michigan educators, *Michigan Virtual* partnered or is in the process of finalizing partnerships with key Michigan educational organizations. These organizations include the MAC, Michigan Association of Intermediate School Administrators (MAISA), MASA, Michigan ASCD, MASSP, Michigan Education Association (MEA), Michigan Association of College Admissions Counseling, Michigan's Integrated Behavior and Learning Support Initiative, and Michigan Elementary and Middle School Principals Association (MEMSPA). As partnerships with Michigan educational organizations grow, *Michigan Virtual* works to consistently build a system of support that develops coherency among the educational organizations and brings additional value to educators throughout Michigan.

The collaborative projects with these educational organizations are focused on helping deliver professional learning at a larger scale while also minding the often limited capacity to deliver traditional learning directly to an educator. Some organizations are hoping to build opportunities to deliver extra value to their memberships, while others are attempting to deliver their current offerings in a more sustainable manner. *Michigan Virtual* is a partner in these discussions and works to create a vision for the future and potential solutions to help each educational organization meet their goals. As a result, the statewide projects in development for these educational organizations vary in scope and direction, and many are at different levels of development. Some project highlights include the following:

- MAISA: *Michigan Virtual* is partnering with MAISA on the statewide Early Literacy Grant and co-created the online book study around *Teaching with Poverty in Mind*, by author and researcher Eric Jensen.
- MASA: *Michigan Virtual* is contributing instructional design assistance to allow the MASA leadership certification course to include a blended learning experience for participants, with plans to establish micro-credentialing courses for credential enhancements.
- MASSP: *Michigan Virtual* provides hosting and ongoing technical support for the MASSP Path to Leadership courses. In addition, staff from both organizations are collaboratively developing scenario-based online learning modules for building administrators and leadership teams.
- MEMSPA: This collaborative partnership has been dedicated to the development of innovative and competency-based professional development opportunities using a micro-credentialing implementation framework. To date, three modules/micro-credentials have been developed: Collaborative Goal Setting with Teachers, Development of Leadership Mission, and Development of Leadership Vision. The goal is to develop a total of eight online micro-credential courses.

- MEA: *Michigan Virtual* and the MEA are transferring MEA professional learning courses to the Professional Learning Portal, with the goal of providing all MEA members with online professional learning opportunities as a membership benefit.
- Michigan ASCD: *Michigan Virtual* hosts and supports the Michigan ASCD Leadership Institute courses, which are delivered in a blended format.
- MAC: *Michigan Virtual* is collaboratively building and housing online learning modules for educators in the area of balanced assessment.

MDE, *Michigan Virtual*, MACUL, MEMSPA, MASSP, and MASA have also joined together to form a coalition to push professional learning toward a competency-based model in Michigan, focused on the development of a statewide plan for implementation of educator micro-credentials. This collaborative is in a nascent phase and will likely attract additional involvement from other educational stakeholder groups. The goals of this initiative include, but are not limited to, creating a statewide framework for micro-credentialed professional learning, defining how micro-credentials will meet the continuing professional learning requirements for educators, developing a vetted and approved process for evaluating evidence of learning to award micro-credentials, and constructing an action plan to determine the technical infrastructure that supports the portability and recognition of micro-credentials across systems.

Related to districtwide blended learning implementation efforts, *Michigan Virtual* has partnered with Heather Staker, a nationally-recognized expert, to offer Blended Learning Live! Blended Learning Live! addresses a district's desire to push forward with blended, online, and personalized learning in their district without knowing all of the details on how to start. Often a school leader wants a formula for the correct implementation and rollout of 1:1, blended learning, and more tech integration in their district. Through this program, a team of district or school leaders receive scaffolded support to develop a blended learning implementation plan. In true blended fashion, the two-day, face-to-face event is enhanced by online opportunities before and after the face-to-face learning experience.

In addition to the Blended Learning Live! program, *Michigan Virtual* is developing a year-long blended immersion program for teachers to experience and learn about blended learning in their classroom. This *Michigan Virtual*-developed learning experience is an ongoing, blended approach to professional learning. Developed by blended learning coaches and former teachers, this learning experience is designed to explore and implement best practices in the blended classroom through meaningful, collaborative, and personalized professional learning. Participants will begin by reflecting on their own classrooms, student data, and learning outcomes. Throughout the cohort, learners will be supported through a collaborative and interactive process to help them design an innovative learning environment that will best fit their students' needs. They will also have the opportunity to be trained on best practices in instructional coaching so they can share their learning with other educators.

Michigan Virtual is also using feedback from the field to identify new innovative solutions to existing challenges. Through focus groups and district interviews, it was identified that leaders were struggling with how to ensure high-quality teacher induction programs with limited capacity and resources. Research has identified best practices for new teacher support, but these supports often fall short when implemented due to the many variables that play a role in the reality of day-to-day district needs. *Michigan Virtual* is exploring a product aimed to help district leaders implement an effective induction program that immediately reaches teacher needs. Focused on delivering just-in-time resources and connectivity to peer

support, this resource would help incoming teachers acclimate to the school culture quicker, a key factor in teacher burnout and turnover in the first few years of entering the profession. With declining enrollments in Michigan's teacher education programs and the relatively high rate at which educators choose to leave the profession, *Michigan Virtual* views supporting new teachers as a critical professional learning opportunity.

Finally, *Michigan Virtual* continues to be active in the work of the Early Literacy Pre-K-3 project. *Michigan Virtual*, in collaboration with MAISA and the Early Literacy Task Force convened by GELN, have developed and begun implementing a comprehensive plan for improving educators' literacy instructional skills and ultimately the literacy skills of Michigan students. The work of this grant initiative has focused on leveraging resources to quickly and effectively develop and implement blended training experiences for ISD/ESA Literacy Coaches, developing and making available online and blended literacy training modules around both effective coaching strategies and essential literacy instructional strategies, and facilitating a statewide professional learning network of ISD and district literacy coaches.

Michigan Virtual's role in the early literacy work has been to lead the development of the online training modules and resources to support the professional learning required of literacy coaches, Pre-K-3rd grade teachers, and administrators. The modules and resources will help ensure a consistent, ongoing source of support for high-quality literacy coaching, the development of core instructional skills for teachers, and a clear understanding of essential literacy instruction skills for instructional leaders. Slated for completion in early 2018, these resources will serve to ensure that professional learning options on literacy instructional essentials are available and accessible to all Pre-K-3 teachers, coaches, and administrators in Michigan. These resources can be found at www.literacyessentials.org.

Research Institute

Section 98 of the State School Aid Act also directs *Michigan Virtual* through its research institute, *MVLRI*, to address the following tasks to strengthen teaching and learning for K-12 education. Toward that end, *MVLRI* has responsibilities as summarized in the items below.

(A) Support and accelerate innovation in education through the following activities:

2(a)(i) Test, evaluate, and recommend as appropriate new technology-based instructional tools and resources.

Michigan Virtual has added synchronous virtual classroom functionality for use in its Professional Learning Portal. This includes the ability to assign video assignments and use virtual synchronous classrooms. As of August 2017, there were four professional learning communities (PLC) running in the portal; Early Literacy Online Coaches Community (615), STEM Teacher Network (36), MVS Action Research PLC (30), and the Online Mentor Community (156). Other courses are continuing to be enhanced so that communities of engagement are available after the course has been completed.

Michigan Virtual expanded its Learning Object Repository (LOR) to include the H5P development platform. H5P is a free, open-source content creation technology that enables the creation of interactive and accessible HTML5 content. HTML5 content is the current standard for both web and mobile display. Work this year included testing with *Michigan Virtual* designers and content experts. The H5P interactive object development platform is now stable and provides an easy-to-use tool and environment to produce digital

content. Further, H5P also provides a number of content-types that meet accessibility standards, which allows teachers to build web-accessible content without deep technical knowledge or programming skills. Over 800 learning object resources have been created and are publicly available for use through the LOR.

Individual teachers often do not have the time to seek out and review technology tools to be used in their classrooms. Because of this, *Michigan Virtual*'s Professional Learning Services team maintained a collaborative digital technology resource document that was shared with educators during professional development sessions. The intent of the document was to detail available digital resources and what teachers liked about using the resources, as well as some of the limitations. At the start of the fiscal year, the tech resources handout (in a Google doc) had 36 tool reviews; currently there are 79 tool reviews. The reviews have been moved to the LOR under the tag of Educational Tools[13].

Because of the close interaction between its Instructional Product Development team, its Student Learning Services team, and *MVLRI, Michigan Virtual* also has the unique capability to analyze both course- and student-level data to better understand how students engage with *Michigan Virtual* student courses. Consequently, *Michigan Virtual* undertook a series of small-scale design studies in the 2016-17 school year using Google Analytics, Hotjar, and learning management system data. The goal of the studies was to move beyond perceptions and anecdotal evidence about student engagement and understand the myriad ways in which students were engaging with their online courses. A two-part blog series[14,15] detailing different data gathering and analytic approaches, the evolving understanding of engagement in K-12 courses, and implications for instructional designers and instructional staff was used to report on this work.

2(a)(ii) Research, design, and recommend digital education delivery models for use by pupils and teachers that include age-appropriate multimedia instructional content.

Algebra I is one of the most highly enrolled in courses for virtual providers and the most common online mathematics course taken in Michigan[16]. It is also often a course in which the students taking it tend to struggle, as evidenced by a statewide pass rate of 40%[17]. *Michigan Virtual* worked with researchers from the Institute for Learning Technologies (ILT) at Teachers College, Columbia University, to study how Algebra I students paced themselves throughout the semester, their online activity in different components of the course, and the difficulties students encountered along the way. Findings were shared both through a comprehensive report[18] and also through an *MVLRI* webinar[19].

Michigan Virtual published four reports on its iEducator (iEd) program, a teaching and training program designed to support new teachers in developing competencies for teaching in online environments. The first report[20] in the series introduced and detailed the iEd program and included reflections from the administrative and instructional design teams involved in the development of the program, as well as reflections and feedback from the iEds themselves. The second report[21] examined the iEds' collegiality, specifically their cohesion with and centrality in the group through an analysis of their blog posts and comments. The third report[22] examined the iEds' performance indicated by their caseload trends and students' course outcomes, including course completion status and final grades over the period of four academic terms. The final report[23] began at the launch of the iEds' second year of training and focused on their immersion in blended teaching and learning. Collectively, the reports represent a model for systematically collecting, analyzing, and synthesizing information to evaluate a program's effectiveness. The process also helped to identify areas of improvement in terms of teaching and student learning within the context of novice teachers' professional leaning.

Michigan Virtual published another four-report series, this one focused on the changing roles of educators. The first report[24] focused on blended learning coaches, professional learning personnel who provide guidance on the development and implementation of high-quality blended instruction. The second report[25] concentrated on blended teachers and how they practice blended learning and think about their work with students and colleagues, the mindsets they adopt when implementing change within their settings, and the benefits they anticipate by applying blended practices in their classrooms. The third report[26] explored the work of instructional technologists and how they conceptualize their work, the approaches they employ when supporting teachers through the process of technology integration, and the ways they think about the evolution of their field of work. The final report[27] focused on data specialists, data integrationists, data managers, data analysts, and others with job titles that connote analysis of data and who provide just-in-time information to fellow educators to help improve learning outcomes in their school or district. By gleaning insights from these educators through interviews and focus groups, we have a better understanding of the challenges that practitioners face and the opportunities that have become available to them with the rise in digital learning implementation in Michigan.

In a similar vein, another report focused on informing ways that educators could identify students who need additional support to succeed. This report[28] used a growth modeling approach and focused on data processing, data plotting, and data screening. This report offers a demonstration of data preparation and screening to fit timestamped data into the rigorous analytic approach for online learning providers who need to adopt similar academic analytics.

An area of digital education that is gaining interest is the development of educational games. This area seeks to identify the key attributes of games that make them so compelling and incorporate those same features into education curriculum. To explore this area, *Michigan Virtual* partnered with Dr. Dennis Beck at the University of Arkansas to investigate and report on gamification in online courses. The report[29] and webinar[30] for this project provide an overview of the literature on the use of digital games in education with a focus on K-12 students and practical recommendations on the use of specific games, game genres, and categories.

Michigan Virtual disseminated recommendations for digital education delivery models through various face-to-face events. For instance, *Michigan Virtual* hosted over 20 regional training events at locations such as ISDs on the topic of blended learning implementation.

2(a)(iii) Research, develop, and recommend annually to the department criteria by which cyber schools and virtual course providers should be monitored and evaluated to ensure a quality education for their pupils.

Over the last five years, the National Education Policy Center has published a Virtual Schools in the U.S. report. As an extension of the data collected for the 2017 report[31] and to supplement the national perspective provided in that report, the lead authors worked with *Michigan Virtual* to produce in-depth case studies featuring the states of Ohio, Wisconsin, Idaho, Washington, and Michigan. The case studies report[32] describes the enrollment, student characteristics, and performance of virtual and blended schools in each state, discusses the research related to virtual and blended school characteristics and outcomes, and examines recent legislative activities pertaining to virtual and blended schools. This new research effort adds to the current understanding of virtual schools by highlighting areas that are consistent with findings identified in the national report as well as noting instances where national trends may

inaccurately describe state-level activity. In addition to the case studies report, Dr. Gary Miron, an author on that report and a professor at Western Michigan University, was also asked to share his perspectives on what Michigan might do to improve the performance of cyber schools in the state. Dr. Miron's recommendations[33] were shared with the MDE.

Michigan Virtual collaborated with the Education Development Center (EDC)[34] to create a research-based, 55-question survey protocol to assess quality practices and processes in supplemental online learning programs in school districts. The survey includes six focus areas: student selection processes, course procurement practices, parent communication and support, instructor and mentor training, student support techniques, and program evaluation. The survey protocol was shared with the MDE as part of the feedback and finalization process. Five public school districts agreed to participate in a pilot phase of a review service that included the use of the survey instrument. The five program reviews are detailed in the section of this report addressing directive 2(b)(xii).

In an effort to help raise awareness about evaluating online learning for quality, *Michigan Virtual* partnered with Quality Matters[35] (QM) to offer free professional development opportunities[36] across Michigan that focused on ensuring quality in online learning. QM, a leader in online course quality assurance, has developed a rubric that integrates existing national standards for K-12 online education and offers workshops that are designed for teachers, curriculum directors, instructional designers, and virtual program administrators and focus on how to interpret and apply the rubric. Through the partnership with QM, *Michigan Virtual* offered ISDs the opportunity to identify an individual to receive free training for two QM workshops. The first workshop introduced the use of the rubric in reviewing online and blended courses, and the second taught attendees how to conduct online course reviews. The training opportunity was shared by MAISA; *Michigan Virtual* and QM also presented to the REMC Association to raise awareness of the benefits and opportunities provided through this partnership. *Michigan Virtual* also hosted a webinar[37] to provide more details about the training opportunity. Six ISDs had staff who received training through this initiative.

2(a)(iv) Based on pupil completion and performance data reported to the department or the center for educational performance and information from cyber schools and other virtual course providers operating in this state, analyze the effectiveness of virtual learning delivery models in preparing pupils to be college-and career-ready and publish a report that highlights enrollment totals, completion rates, and the overall impact on pupils. The report shall be submitted to the house and senate appropriations subcommittees on state school aid, the state budget director, the house and senate fiscal agencies, the department, districts, and intermediate districts not later than March 31, 2017.

The fourth annual *Michigan's K-12 Virtual Learning Effectiveness Report*[38] was published and mailed to required stakeholders, including superintendents and high school and middle school principals. The report is based on pupil completion and performance data reported by schools to MDE or CEPI, and highlights 2015-16 enrollment totals completion rates, and the overall impact of virtual courses on K-12 pupils. The report found that over 90,000 K-12 students took virtual courses in 2015-16, accounting for over 453,000 virtual course enrollments. Local Education Agency (LEA) schools provided 54% of all virtual enrollments with Public School Academy (PSA) schools adding another 44% of the virtual enrollments. Enrollments were heaviest in the high school grades. The pass rate for virtual courses was 58%; however, half of virtual

learners passed every virtual course they took. One in four virtual learners, on the other hand, did not pass any of the virtual courses they took. Sixty-three percent of Michigan school districts reported having virtual enrollments. About 6% of all K-12 students in the state took a virtual course.

In addition to mailing the report and posting it online, *Michigan Virtual* used a variety of communication channels to spread the findings. A webinar[39] featuring the report was held in April, and a free, self-paced course[40] of approximately 45 minutes in length was added to *Michigan Virtual*'s to the Professional Learning Portal in May. Executive briefings were also held with leaders from several educational organizations as well as with MDE.

2(a)(v) Before August 31, 2017, provide an extensive professional development program to at least 30,000 educational personnel, including teachers, school administrators, and school board members, that focuses on the effective integration of virtual learning into curricula and instruction. The Michigan Virtual Learning Research Institute is encouraged to work with the MiSTEM advisory council created under section 99s to coordinate professional development of teachers in applicable fields. In addition, the department shall coordinate with the Michigan Virtual Learning Research Institute and external stakeholders for professional development in this state. Not later than December 1, 2017, the Michigan Virtual Learning Research Institute shall submit a report to the house and senate appropriations subcommittees on state school aid, the state budget director, the house and senate fiscal agencies, and the department on the number and percentage of teachers, school administrators, and school board members who have received professional development services from the Michigan Virtual University. The report shall also identify barriers and other opportunities to encourage the adoption of virtual learning in the public education system.

Details of *Michigan Virtual*'s professional learning activities are documented earlier in this report under the professional learning section.

2(a)(vi) Identify and share best practices for planning, implementing, and evaluating virtual and blended education delivery models with intermediate districts, districts, and public school academies to accelerate the adoption of innovative education delivery models statewide.

Michigan Virtual has produced a series of best-practice guides for those who provide support to students choosing to learn online:

- Parent Guide to Online Learning[41]
- Student Guide to Online Learning[42]
- Mentor Fundamentals: A Guide to Mentoring Online Learners[43]
- Teacher Guide to Online Learning[44]

These guides are practical resources that capture critical foundational and operational information to support those filling key online learning roles and to maximize student success. Each is available at no cost though *Michigan Virtual's* websites and is updated annually. *Michigan Virtual* continues to expand its set of guides, adding the teacher guide in 2017and with plans to add a school board guide and an administrator guide in the next fiscal year.

Copies of guides were mailed to superintendents and building principals near the start of the calendar year and were part of a back-to-school mailing this fall. Additionally, *Michigan Virtual* worked with CEPI to identify Michigan educators who likely served in a mentor capacity the previous school year; those individuals were also sent copies of the guides as part of a back-to-school mailing this fall.

Michigan Virtual published a series of quantitative research reports exploring characteristics of students in state virtual school courses, specifically focused on those who took courses for credit recovery (CR). The first report[45] in the series focused on statistical examinations of significant factors such as gender and enrollment reason leading to success or failure in virtual courses. The second report[46] investigated students' engagement profiles focused on the behavior of course assignment completion, and any notable characteristics of credit recovery enrollments were explored. The third report[47] concentrated on the behavior of time investment in the course to explore students' engagement profiles. The final report[48] focused on commonalities and differences in course engagement profiles between mathematics and non-mathematics courses. Notable characteristics of credit recovery enrollments were also discussed. From the research or policy perspective, this series provides empirical evidence about enrollment, performance, and course engagement of CR students when they took virtual courses to recover the credit. Practically, the findings help us identify ways to positively impact course content, programs, and instructional practices focused on CR students' needs.

Michigan Virtual also worked with Dr. Charles Graham from Brigham Young University to create a scientifically validated, openly-available blended teaching readiness instrument that can be freely used by districts, schools, and individual teachers to assess core knowledge and skills needed for successful blended teaching. The first phase of this instrument development has been completed, and results were published in a report[49] this fall. The second phase, instrument validation, continues into the 2017-18 school year.

Michigan Virtual has also been active in sharing best practices and stories from leading education innovators through webinars[50] and podcasts[51]. *Michigan Virtual* held 14 webinars during the 2016-17 school year, featuring topics including school choice laws as they relate to cyber schools, presence and community in the online classroom, student learning pathways in online courses, and online teacher job satisfaction. *Michigan Virtual* also produced 12 podcasts, including guests from different online learning programs within Michigan, researchers from Harvard University, and other national leaders in K-12 online learning. When new media assets are produced, they are also shared through the *MVLRI* social media channels[52, 53].

Michigan Virtual has also provided professional development for instructors who teach student courses for *Michigan Virtual,* many of whom are also employed by other Michigan districts. Since October, *Michigan Virtual* has conducted monthly synergy sessions with its full-time instructors. Two full one-day conferences were held for full and part-time instructors; one in the fall and another in the spring coordinated with the annual MACUL conference in March 2017. Each synergy session and conference included a focus on best practices for teaching online. In August, all *Michigan Virtual* instructors (about 160 individuals) were required to attend a mandatory two-day professional learning event. In addition, weekly webinars were facilitated for first and second year instructors centered on best practices for teaching in online environments.

All *Michigan Virtual* full and part-time instructors participated in a six-hour, online training in May focused on Effective Feedback in the Online Environment to help them better support student success. Additionally, the full-time instructors have been trained to become Google Certified Educators.

Over the course of the year, *Michigan Virtual* hired approximately seven additional full-time and 10 part-time instructors for which a minimum of two hours of face-to-face training and approximately 20 hours of online onboarding is provided to prepare them for teaching within the online environment. This year, *Michigan Virt*ual expanded this opportunity to two local districts interested in having their teachers trained as well. Through this effort, *Michigan Virtual* trained three teachers from the Lansing area and approximately 20 teachers from St. Clair County school districts.

To generate both excitement around and practical resources for educators, *Michigan Virtual* conducted a statewide content creation challenge focused on finding and creating Open Educational Resources (OER). The *Michigan Virtual* OER Remix Competition started in the fall of 2016. Teachers were invited to enter the contest by completing a 30-minute training module on OER before remixing their own lesson from OER commons. *Michigan Virtual* outreach effort for this challenge reached nearly 20,000 people on social media, of whom nearly 500 visited the contest site, and of which 27 educators completed the training module.

Michigan Virtual shared best practices extensively for planning, implementing, and evaluating virtual and blended education delivery models with intermediate districts, districts, and public school academies to accelerate the adoption of innovative education delivery models statewide. In particular, *Michigan Virtual* partnered with four school districts (Ann Arbor, Hamilton, Haslett, and Williamston) in a collaborative manner with the goal of implementing blended learning in an authentic way in each district. In these four schools, *Michigan Virtual* delivered 38 onsite professional learning sessions with district personnel. In addition to these partner school districts, *Michigan Virtual* delivered onsite blended learning professional development to eight other school districts.

Michigan Virtual was also active sharing best practices through presentations at more than 10 Michigan conferences. Examples of audiences include MASA, MEMSPA, the Michigan School Counselor Association, the Michigan Association of School Boards, and the Michigan Association of Non-Public Schools. Additionally, *Michigan Virtual* presented 10 sessions at the annual MACUL conference in March 2017. Topics presented included, but were not limited to, implementing blended learning, providing student feedback in online courses, mentoring students in online courses, and engaging students in online courses. *Michigan Virtual* also spreads best practices through various non-conference events. Details of these events were shared in the professional learning section earlier in this report.

(B) Provide leadership for this state's system of virtual learning education by doing the following activities:

2(b)(i) Develop and report policy recommendations to the governor and the legislature that accelerate the expansion of effective virtual learning in this state's schools.

Through an MOU with MDE, *Michigan Virtual* has had an executive at the Department multiple times a week to create and foster collaboration between the two organizations. At the request of the State Superintendent, *Michigan Virtual* also leveraged its network of national experts to conduct a review of state

special education policies[54]. Additionally, in the last fiscal year, representatives from *Michigan Virtual* participated in several meetings with MDE around issues of online learning and policy.

Out of these meetings and informed by the work of *MVLRI*, policy recommendations regarding online learning in the state of Michigan were submitted to the house and senate appropriations subcommittees on state school aid, the state budget director, the house and senate fiscal agencies, and the Department in January of 2017. Specifically, *Michigan Virtual* made three policy recommendations. The first was to make virtual learning data available through the MI School Data website so that there was greater transparency and availability of information for parents and students when making virtual learning decisions. The second was to suggest that language be added to Section 21f that required mentors to complete MDE approved training on their roles and responsibilities as mentors, as research has shown mentors to play a critical role in the success of virtual learners. The final recommendation was to add language to Section 21f that required schools to include sharing information on virtual learning options in student/parent handbooks. This recommendation was made based on consistent data over the last several years that Michigan adults are largely unaware of K-12 virtual learning options.

2(b)(ii) Provide a clearinghouse for research reports, academic studies, evaluations, and other information related to virtual learning.

Michigan Virtual hosted and operated the Clearinghouse[55] for research reports, academic studies, evaluations, and other information related to virtual learning, maintaining a 99.95% uptime since October 1, 2016, with the only downtime occurring for required site maintenance.

In an effort to alert users to new resources in the Clearinghouse, newsletters[56, 57, 58, 59] were sent quarterly to the subscribers of the *MVLRI* mailing list, which includes nearly 420 email addresses. *Michigan Virtual* also made a tracking document[60] available that provides links to each of the 135 resources added to the Clearinghouse during the fiscal year.

2(b)(iii) Promote and distribute the most current instructional design standards and guidelines for virtual teaching.

In addition to numerous other topic areas, resources added to the Clearinghouse focusing on the area of instructional design were tagged with the keyword "instructional design." Users can search the Clearinghouse using the "Year Added" filter in combination with the "Keyword" filter set to "instructional design" to see the most recently added resources that focus on instructional design. Examples of five of these resources include:

- *An Instructional Design Framework for Fostering Student Engagement in Online Learning Environments*[61]
- *Design and development of VR learning environments for children with ASD*[62]
- *Hybrid e-TextBooks as comprehensive interactive learning environments*[63]
- *Empowering Student Voice through Interactive Design and Digital Making*[64]
- *Design-driven education in primary and secondary school contexts. A qualitative study on teachers' conceptions on designing*[65]

In addition to sharing and promoting academic resources on instructional design, *Michigan Virtual* sought to connect practitioners to instructional design resources through its Professional Learning Portal. To that end, *Michigan Virtual* collaborated with the K-12 Program Director and K-12 Program Coordinator of QM on the potential integration or potential offerings of QM's online workshops on instructional design within *Michigan Virtual*'s Professional Learning Portal. Upon consideration of technical issues, each organization determined a better course of action would be to promote QM training opportunities further via the *Michigan Virtual* website and develop an online form for interested parties to submit their information.[66]

For educators interested in learning the basics of facilitating an online course, not necessarily designing one, *Michigan Virtual* developed and launched, in August 2017, a 12 SCECH *Online Course Facilitation, Grades 6-12*[67] in the Professional Learning Portal.

2(b)(iv) In collaboration with the department and interested colleges and universities in this state, support implementation and improvements related to effective virtual learning instruction.

For nearly five years, *Michigan Virtual* has been working with colleges and universities throughout the state as well as the MDE and REMC Association to understand, update, and revise the Educational Technology (NP) teaching endorsement. Consistently the working team has agreed that the current NP endorsement, nearing 10 years old, needs to be updated. That consensus, however, did not extend to what the new, revised NP endorsement would include, and potentially exclude. Additionally there has been concern that simply updating the endorsement would not address the larger issue of lack of demand in the field for teachers with the NP endorsement. From our extensive work in this area, it seems that the issues around demand are not so much that districts do not want teachers with advanced technology capabilities but rather that districts are either unaware of the endorsement (and the six areas of focus) and subsequently do not offer financial incentives or hiring advantages, or that districts have thus far had the internal capacity to handle routine technology issues and thus have not needed to actively seek out the specialized knowledge and skills of teachers with the NP endorsement. Given this, *Michigan Virtual* shared the following recommendations with MDE[68]:

- The NP endorsement has limited value due to lack of demand for individuals who hold the endorsement.
- The NP endorsement, as it is currently designed, does not adequately prepare teachers to teach online.
- Retiring the NP endorsement in favor of MDE's recent proposed changes to the structure of Teacher Certification is sensible.
- It is recommended that MDE include a specialization in online teaching as a pathway through initial certification.

In addition to the work with colleges and universities detailed above, *Michigan Virtual* provided 40 college of education deans and assistant deans with informative letters and materials about the iEducator 21st Century Digital Learning team and *Michigan Virtual*'s desire to recruit novice educators from the field. The information included an explanation of the program in relation to *Michigan Virtual*'s organizational goals to impact online and blended learning in the State, the professional development available for the iEducators, and the benefit to districts that may wish to hire educators with such skills and expertise.

Further outreach was extended to more than 30 teacher preparation institutions around the state in March 2017, highlighting details about the unique opportunity for novice teachers to apply to become a Cohort III iEducator with *Michigan Virtual*. The same outreach provided teacher preparation institutions with a direct contact at *Michigan Virtual* for the iEducator program and an offer to hold direct conversations and presentations to college faculty or students about the program.

The communications sent led to attendance by *Michigan Virtual* at the Michigan State University career fair for educators in April. The Instructional Manager for the iEducator program also promoted the unique features of the professional development offered to iEducators as a guest panelist for the University of Michigan's 4T Virtual Conference presenter training in May.

2(b)(v) Pursue public/private partnerships that include districts to study and implement competency-based technology-rich virtual learning models.

Through a unique partnership with the Michigan Works! system and Career Online High School (COHS), *Michigan Virtual* helped three adult learners earn their high school diploma. As part of a pilot effort[69] for *Michigan Virtual*, COHS is an innovative online high school program that enables out-of-school youth and adult learners to earn an accredited high school diploma and foundational career skills certificate in less than 18 months. The program delivers competency-based instruction, 100% online, in a highly supportive learning environment. Along with their diploma, students work toward a certificate in one of eight in-demand career fields. Through COHS, learners can complete the recommended first course within their selected career field including: office management, childcare and education, commercial driving, retail customer service, homeland security, certified protection officer, professional skills, and food and hospitality at no cost.

As part of a multi-year partnership with four Michigan school districts, *Michigan Virtual* published a report[70] that examined the readiness and challenges of each school district as teachers, district leaders, and *Michigan Virtual* worked to systematically implement effective blended learning strategies. The goal of this study was to understand multiple stakeholders' readiness points and challenges when they began to implement blended learning and to share the findings in a way that could help move the field forward.

2(b)(vi) Create a statewide network of school-based mentors serving as liaisons between pupils, virtual instructors, parents, and school staff, as provided by the department or the center, and provide mentors with research-based training and technical assistance designed to help more pupils be successful virtual learners.

Michigan Virtual undertook a number of initiatives directly related to providing training and support for on-site mentors in the state of Michigan. Perhaps the largest initiative was the deployment of the statewide mentor support network, named the Online Mentor Community, in the Professional Learning Portal. Since its launch in December 2016, the community has grown to over 150 members including 10 regional mentor leaders who provide support for the network through coaching, community interaction, and resource development. Seven regional mentors hosted a Mentor Site Institute workshop in their school. The online community is very active as well, with approximately 200 on-going discussions around online mentor strategies, responsibilities, networking, fully online, supplemental, and credit recovery models.

The Online Mentor Community provided a unique opportunity to not only facilitate discussion but to capture and disseminate stories of successful online programs through text and video. Six case studies highlighting outstanding mentor practice were published by *Michigan Virtual*. Four regional mentor leaders wrote and published blogs[71,72,73,74]. Two video case studies were also created to accompany the blog postings focusing on developmental relationships between mentors and students in online programs.

In addition to the Online Mentor Community, *Michigan Virtual* hosted on-site mentor trainings. These Mentor Site Institutes were delivered in Brighton, Coopersville, Grand Ledge, Grayling, Gull Lake, Ogemaw Heights, Three Rivers, COOR ISD, St. Clair County RESA, and as a MACUL pre-conference workshop.

For those educators unable to attend the Mentor Site Institutes, *Michigan Virtual* hosted a webinar[75] featuring national and local experts discussing mentor responsibilities, changes to the per pupil accounting practices for online students, what to know at the start of the school year, and new and existing resources from *Michigan Virtual* to support mentors and online students.

2(b)(vii) Convene focus groups and conduct annual surveys of teachers, administrators, pupils, parents, and others to identify barriers and opportunities related to virtual learning.

Michigan Virtual undertook several survey and focus group initiatives in the past fiscal year. For the third consecutive year, *Michigan Virtual* partnered with Public Sector Consulting (PSC) and conducted a telephone poll of 800 adult residents of Michigan to obtain their opinions about online learning opportunities for public school students in the state and published the results in the third annual Public Awareness Report[76]. The most recent survey is a follow-up to similar polls conducted by PSC in 2014 and 2015, and was designed to include common questions for comparison. Overall, Michigan adults consistently viewed online learning as important with a strong majority of respondents in all three years feeling that it was somewhat or very important for middle school and high school students to have the option of enrolling in an online course at their local school district. Additionally there seemed to be a consistent lack of general knowledge about online learning with respondents being largely unsure about whether statements regarding online learning were true or false.

Michigan Virtual also sought to collect the opinions of Micourses.org users, including both parents and students related specifically to their satisfaction with their districts 21f implementation procedures. The surveys were added to the Micourses.org website in December 2016. However, despite the surveys being open for 10 months as well as being sent to each parent or student who requested information on the Micourses.org website, no responses were received for either survey. *Michigan Virtual* is seeking feedback from MDE about alternative strategies for collecting such information from parents and students.

To better understand the perspective and decision making around credit recovery programs, *Michigan Virtual* contacted and talked extensively with educational leaders of credit recovery programs around Michigan. These conversations were made available through podcasts and blog posts[77,78,79].

Michigan Virtual sought to collect a minimum of 1,000 surveys with feedback from educators using its professional learning services; this initiative is ongoing. End of course surveys were re-designed and implemented in the Professional Learning Portal. Every complete enrollment within the portal was prompted to respond to the survey. An end-of-year mass survey was sent to all portal users in August 2017 collecting data on customer satisfaction.

Michigan Virtual also worked closely with MEMSPA and utilized the Professional Learning Portal to survey participants in the MEMSPA micro-credential program mentioned in the professional learning section earlier in the annual report.

2(b)(viii) Produce an annual consumer awareness report for schools and parents about effective virtual education providers and education delivery models, performance data, cost structures, and research trends.

Michigan Virtual continues to host and update the Consumer Awareness Report[80] twice annually. The purpose of this resource is to make consumers aware of the status of online learning in Michigan and is specifically designed to inform parents, school personnel, and school board members of the nature of online learning options, their effectiveness for Michigan students, the cost of these programs, and current trends. New this year was the creation of a 2016-17 summary brief[81] that provides a quick synopsis for the year.

2(b)(ix) Research and establish an Internet-based platform that educators can use to create student-centric learning tools and resources and facilitate a user network that assists educators in using the platform. As part of this initiative, the Michigan Virtual University shall work collaboratively with districts and intermediate districts to establish a plan to make available virtual resources that align to Michigan's K-12 curriculum standards for use by students, educators, and parents.

Michigan Virtual established an Internet-based platform, named the LOR[82] that educators can use to create student-centric learning tools. The LOR was updated to include H5P functionality, bringing with it online tutorials and examples of how to create interactive learning objects. During the past fiscal year, *Michigan Virtual* produced over 800 H5P interactive learning objects for the LOR that support a wide-range of subject areas including chemistry, English language arts, algebra, criminology, study skills, career exploration and planning, business ethics, and computer science. Creation of learning objects is not confined to expert developers; however, *Michigan Virtual* also enlisted a group of classroom teachers to determine their ability to use the H5P platform to build interactive learning objects. As non-professional content developers, they were able to build 150 learning objects.

Michigan Virtual also collaborated with education organizations from around the state who were actively working on developing the #GoOpen plan and contributed both content and technical expertise. *Michigan Virtual* was an active participant in #GoOpen Michigan meetings facilitated by MDE throughout fall 2016 and spring 2017. The efforts of the #GoOpen Michigan community have led to major milestones being reached including the decision to use OER Commons as the platform to support the statewide repository for OER and a #GoOpen Michigan Summit in December to introduce #GoOpen Michigan to local and ISD Superintendents and Public School Academy Directors.

2(b)(x) Create and maintain a public statewide catalog of virtual learning courses being offered by all public schools and community colleges in this state. The Michigan Virtual Learning Research Institute shall identify and develop a list of nationally recognized best practices for virtual learning and use this list to support reviews of virtual course vendors, courses, and instructional practices. The Michigan Virtual Learning Research Institute shall also provide a mechanism for intermediate districts to use the identified best practices to review content offered by constituent districts. The Michigan Virtual Learning Research Institute shall review the virtual course offerings of the Michigan Virtual University, and make the results from these reviews available to the public as part of the statewide catalog. The Michigan Virtual Learning Research Institute shall ensure that the statewide catalog is made available to the public on the Michigan Virtual University website and shall allow the ability to link it to each district's website as provided for in section 21f. The statewide catalog shall also contain all of the following:

(A) The number of enrollments in each virtual course in the immediately preceding school year.

(B) The number of enrollments that earned 60% or more of the total course points for each virtual course in the immediately preceding school year.

(C) The completion rate for each virtual course.

The catalog at Micourses.org is continually maintained by *Michigan Virtual* and allows districts and third-party providers to input course syllabi, course offerings, course reviews, and performance data. In September of each year, *Michigan Virtual* requests completion data from districts offering courses through Micourses.org and offers to batch upload large data files for those districts. Courses input into the catalog at Micourses.org are required to undergo an online course review. To facilitate and support this process, *Michigan Virtual* updated the *Guidelines and Model Review Process for Online Courses*[83]. The new updated version includes information of the use of Quality Matters (QM) course review standards for ensuring quality in online courses. *Michigan Virtual*, with the input of MDE, is also incorporating language in the document to address the offering of pilot courses in Micourses.org and how such courses might be offered in the absence of a completed course review. For districts and ISD who would like additional supports in completing the online course reviews, *Michigan Virtual* offers free training opportunities on the QM course review process to interested ISDs. *Michigan Virtual*, MAISA, and QM have partnered to send invitations to members of MAISA to participate in this initiative, as well as presented at a meeting of REMC Association of Michigan. Currently, the following ISDs maintain an affiliate subscription with Quality Matters to put personnel through QM training opportunities: Calhoun, Ottawa, Eastern Upper Peninsula, Genesee, Kalamazoo, and Wayne.

Michigan Virtual's own course offerings also use the formal online course review process through QM. During the past fiscal year 17 semester-length *Michigan Virtual* student courses and one course review template were reviewed through the QM process and became certified for quality. Additionally, 27 semester-length courses were submitted for QM review by the content vendor selected by *Michigan Virtual* for its credit recovery solution. In total, *Michigan Virtual* was directly responsible for ensuring the quality of 44 semester-length online courses through the QM process this year.

2(b)(xi) Develop prototype and pilot registration, payment services, and transcript functionality to the statewide catalog and train key stakeholders on how to use new features.

Michigan Virtual strives to make the online course catalog at Micourses.org as useful and transparent as possible. To that end, and after rigorous testing from internal users as well as from representatives of select school districts that have been heavy users of the site, functionality for enrollment, billing, and transcription services were added to the production environment of Micourses.org.

Anticipating the need for support around the new features, *Michigan Virtual* has produced help documentation[84] outlining the processes for the added enrollment, billing, and transcription functionality. Information on the new help documents were also included in the update notification provided to all catalog managers alerting them to the new functionality and training opportunities. *Michigan Virtual* also offers comprehensive training regarding the updates to Micourses.org. To ensure schools and districts were aware of this support, emails were sent to every district or school, that have included courses in the catalog, informing them of their training options and providing them the avenue to request training at their discretion.

2(b)(xii) Collaborate with key stakeholders to examine district level accountability and teacher effectiveness issues related to online learning under section 21f and make findings and recommendations publicly available.

Using the newly-developed survey instrument referenced in 2(a)(iii) above, *Michigan Virtual* worked with five school districts to conduct supplemental online course program reviews. Representatives from each school district completed the survey and also participated in a 60- to 90-minute follow-up interview to provide context around their answers and probe more deeply into areas of interest. For each district, a custom report was drafted and shared with them that summarized key findings and provided over 60 targeted resources that program administrators might find useful in program improvement efforts. A report[85] synthesizing the findings from all five program review case studies was developed and shared with the MDE in September 2017.

Michigan Virtual also produced a couple of blog posts/podcasts[86,87] pairings based on interviews with Michigan administrators on the topic of district accountability and teacher effectiveness related to virtual learning.

2(b)(xiii) - Provide a report on the activities of the Michigan Virtual Learning Research Institute.

The "Research Institute" section of this report (page 13-26) provides the required reporting for *MVLRI*.

Appendix A – Michigan Virtual Student Enrollment Data

Figure 1. Districts Served by *Michigan Virtual* with Student Online Courses in 2016-17

LEA Districts

Adrian Public Schools
Airport Community Schools
Alba Public Schools
Alcona Community Schools
Allegan Public Schools
Allen Park Public Schools
Allendale Public Schools
Alma Public Schools
Almont Community Schools
Anchor Bay School District
Ann Arbor Public Schools
Arenac Eastern School District
Armada Area Schools
Bad Axe Public Schools
Baldwin Community Schools
Bath Community Schools
Battle Creek Public Schools
Bay City School District
Beal City Public Schools
Bear Lake Schools
Beaverton Rural Schools
Bedford Public Schools
Belding Area School District
Bellaire Public Schools
Bellevue Community Schools
Bentley Community S.D.
Benzie County Central Schools
Berrien Springs Public Schools
Bessemer Area School District
Big Bay De Noc School District
Birch Run Area Schools
Birmingham Public Schools
Bloomfield Hills Schools
Bloomingdale Public S.D.
Boyne City Public Schools
Brandon School District in the Counties of Oakland and Lapeer
Breckenridge Community S.
Breitung Township S.D.
Bridgman Public Schools
Brighton Area Schools
Brimley Area Schools
Britton Deerfield Schools
Brown City Community S.
Buchanan Community Schools
Buckley Community Schools
Bullock Creek School District
Byron Area Schools
Byron Center Public Schools
Cadillac Area Public Schools
Caledonia Community Schools
Carson City-Crystal Area S.
Cass City Public Schools
Cassopolis Public Schools
Cedar Springs Public Schools
Charlevoix Public Schools
Charlotte Public Schools
Cheboygan Area Schools
Chesaning Union Schools
Chippewa Hills School District
Clarkston Community S.D.
Clinton Community Schools
Coldwater Community S.
Coloma Community Schools
Comstock Public Schools
Concord Community Schools
Constantine Public S.D.
Coopersville Area Public S.D.
Croswell-Lexington Com. S.
Dansville Schools
Dearborn City School District
Deckerville Community S.D.
Delton Kellogg Schools
Detroit City School District
DeWitt Public Schools
Dexter Community S.D.
Dryden Community Schools
Durand Area Schools
East China School District
East Grand Rapids Public S.
East Jordan Public Schools
East Lansing School District
Eaton Rapids Public Schools
Edwardsburg Public Schools
Elk Rapids Schools
Elkton-Pigeon-Bay Port Laker
Escanaba Area Public Schools
Essexville-Hampton Public S.
Evart Public Schools
Ewen-Trout Creek Cons. S.D.
Fairview Area School District
Farmington Public S.D.
Fennville Public Schools
Fenton Area Public Schools
Ferndale Public Schools
Flat Rock Community Schools
Forest Hills Public Schools
Forest Park School District
Fowler Public Schools
Fowlerville Community S.
Frankenmuth School District
Frankfort-Elberta Area S.
Freeland Community S.D.
Fremont Public School District
Fulton Schools
Galesburg-Augusta Comm. S.
Gaylord Community Schools
Gibraltar School District
Gladwin Community Schools
Glen Lake Community Schools
Gobles Public School District
Godwin Heights Public S.
Grand Blanc Community S.
Grand Haven Area Public S.
Grand Ledge Public Schools
Grand Rapids Public Schools
Grandville Public Schools
Grass Lake Community S.
Greenville Public Schools

Grosse Ile Township Schools
Grosse Pointe Public Schools
Gull Lake Community Schools
Hale Area Schools
Hamilton Community Schools
Hancock Public Schools
Hanover-Horton S.D.
Harbor Beach Community S.
Harbor Springs School District
Harper Creek Community S.
Harper Woods, The School District of the City of
Harrison Community Schools
Hart Public School District
Hartford Public Schools
Hartland Consolidated Schools
Haslett Public Schools
Hastings Area School District
Hemlock Public S.D.
Hesperia Community Schools
Holland City School District
Holly Area School District
Holt Public Schools
Hopkins Public Schools
Houghton Lake Community S.
Houghton-Portage Twp. S.D.
Howell Public Schools
Huron School District
Huron Valley Schools
Imlay City Community Schools
Ionia Public Schools
Iron Mountain Public Schools
Ishpeming Public S.D. No. 1
Jackson Public Schools
Jenison Public Schools
Johannesburg-Lewiston Area Schools
Kalamazoo Public Schools
Kearsley Community S.D.
Kelloggsville Public Schools
Kenowa Hills Public Schools
Kent City Community Schools
Kingsley Area Schools
Kingston Community S.D.
Lake Linden-Hubbell S.D.
Lake Orion Community S.
Lakeshore S.D. (Berrien)
Lakeview Public S. (Macomb)
Lakeview S.D. (Calhoun)
Lakewood Public Schools
L'Anse Area Schools
L'Anse Creuse Public Schools
Lawrence Public Schools
Leland Public School District
Leslie Public Schools
Lincoln Consolidated S.D.
Litchfield Community Schools
Livonia Public Schools S.D.
Ludington Area School District
Mackinac Island Public S.
Mackinaw City Public Schools
Manchester Community S.
Manistee Area Public Schools
Manistique Area Schools
Maple Valley Schools
Marlette Community Schools
Marquette Area Public Schools
Marshall Public Schools
Mason Public S. (Ingham)
Mattawan Consolidated S.
Mayville Community S.D.
Mendon Community S.D.
Menominee Area Public S.
Mesick Consolidated Schools
Michigan Center S.D.
Midland Public Schools
Milan Area Schools
Millington Community Schools
Mona Shores Public S.D.
Monroe Public Schools
Montabella Community S.
Negaunee Public Schools
New Buffalo Area Schools
NICE Community S.D.
Niles Community Schools
North Adams-Jerome Public S.
North Branch Area Schools
North Central Area Schools
North Dickinson County S.
North Huron School District
North Muskegon Public S.
Northport Public S.D.
Northview Public Schools
Northville Public Schools
Norway-Vulcan Area Schools
Novi Community S.D.
Oakridge Public Schools
Okemos Public Schools
Olivet Community Schools
Onekama Consolidated S.
Onsted Community Schools
Orchard View Schools
Oscoda Area Schools
Otsego Public Schools
Ovid-Elsie Area Schools
Parchment School District
Paw Paw Public S.D.
Peck Community S.D.
Pellston Public Schools
Pennfield Schools
Perry Public Schools
Pickford Public Schools
Pinckney Community Schools
Plainwell Community Schools
Plymouth-Canton Comm. S.
Port Huron Area S.D.
Portage Public Schools
Potterville Public Schools
Public Schools of Petoskey
Quincy Community Schools
Rapid River Public Schools
Redford Union S., D. No. 1
Reed City Area Public Schools
Reeths-Puffer Schools
Richmond Community Schools
River Valley School District
Riverview Community S.D.
Rochester Community S.D.
Rockford Public Schools
Romeo Community Schools
Roscommon Area Public S.
Royal Oak Schools
Rudyard Area Schools
Saginaw Twp. Community S.
Saginaw, S.D. of the City of

Saline Area Schools
Sandusky Community S.D.
Saranac Community Schools
Saugatuck Public Schools
Sault Ste. Marie Area Schools
Schoolcraft Community S.
Shepherd Public Schools
South Haven Public Schools
South Lyon Community S.
South Redford School District
Southgate Community S.D.
Sparta Area Schools
Spring Lake Public Schools
Springport Public Schools
St. Ignace Area Schools
St. Johns Public Schools
Standish-Sterling Comm. S.
Stephenson Area Public S.
Stockbridge Community S.
Sturgis Public Schools
Summerfield Schools
Superior Central S.D.
Suttons Bay Public Schools
Swan Valley School District
Swartz Creek Community S.
Tahquamenon Area Schools
Tawas Area Schools
Tecumseh Public Schools
Thornapple Kellogg S.D.
Three Rivers Community S.
Traverse City Area Public S.
Trenton Public Schools
Tri County Area Schools
Ubly Community Schools
Union City Community S.
Unionville-Sebewaing S.D.
Utica Community Schools
Van Buren Public Schools
Vandercook Lake Public S.
Vassar Public Schools
Vicksburg Community Schools
Walled Lake Consolidated S.
Warren Woods Public Schools
Watervliet School District
Waverly Community Schools
Wayne-Westland Comm. S.D.
Webberville Community S.
West Branch-Rose City Area S.
West Iron County Public S.
West Ottawa Public S.D.
Western School District
Whiteford Agricultural S.D. of the Counties of Lenawee and Monroe
Whitehall District Schools
Whitmore Lake Public S.D.
Williamston Community S.
Wolverine Community S.D.
Woodhaven-Brownstown S.D.
Yale Public Schools
Zeeland Public Schools

PSA Districts

AGBU Alex-Marie Manoogian S
Arbor Preparatory H.S.
Bay City Academy
Black River Public School
Byron Center Charter School
Canton Charter Academy
Canton Preparatory H.S.
Central Academy
Chandler Park Academy
Charlevoix Montessori Academy for the Arts
Charlton Heston Academy
Charyl Stockwell Academy
Concord Academy - Boyne
DeTour Arts and Tech. Acad.
Excel Charter Academy
FlexTech High School
FlexTech High School - Novi
Grand River Preparatory H.S.
Grand Traverse Academy
Honey Creek Community S.
ICademy Global
Island City Academy
Joseph K. Lumsden Bahweting Anishnabe Academy
Kensington Woods Schools
Keystone Academy
Kingsbury Country Day School
LifeTech Academy
Merritt Academy
Midland Academy of Adv. and Creative Studies
New School High
Ojibwe Charter School
Pansophia Academy
Reach Charter Academy
Renaissance P.S. Acad.
Taylor Preparatory H.S.
Wellspring Preparatory H.S.
West Michigan Aviation Acad.
West Village Academy

Nonpublic Schools

All Saints Central School
Austin Catholic High School
Calvary Baptist Academy
Calvin Christian M.S. & H.S.
Cardinal Mooney Catholic S.
Detroit Cristo Rey High School
Divine Child High School
Eton Academy
Farber Hebrew Day School – Yeshivat Akiva
Fr. Gabriel Richard H.S.
Grand Rapids Christian H.S.
Hackett Catholic Prep
Holland Christian High School
Huda School and Montessori
Interlochen Arts Academy
Kalamazoo Christian H.S.
Ladywood H.S.--Detroit
Lansing Catholic Central H.S.
Lansing Christian School
Lenawee Christian School
Manistee Catholic Central S.
Martin Luther High School
Mercy High School
Muskegon Catholic Central
New Life Christian Academy
Notre Dame Preparatory S.
Plymouth Christian Academy
Regina High School
Sacred Heart Academy
Shrine Catholic H.S. & Acad
South Christian High School
Southfield Christian School
St. Catherine of Siena Acad.
St. Mary Catholic School
Trinity Lutheran School
Unity Christian High School

Figure 2. *Michigan Virtual* ISD, LEA, PSA District and Nonpublic Schools with Student Enrollments for the 2016-17 School Year

Figure 3. 2016-17 *Michigan Virtual* Courses Offered with Performance Data

NCES Subject Area	Course	Enroll Count	Pass Rate
Agriculture, Food, and Natural Resources	Veterinary Science	151	93%
Business and Marketing	Accounting (A)	183	85%
Business and Marketing	Accounting (B)	74	84%
Business and Marketing	Business Ethics	306	92%
Business and Marketing	Entrepreneurship	225	75%
Business and Marketing	Hospitality and Tourism	108	95%
Business and Marketing	Sports and Entertainment	231	94%
Communications and Audio/Visual Tech.	Journalism	124	77%
Computer and Information Sciences	AP Computer Science A (A)	126	92%
Computer and Information Sciences	AP Computer Science A (B)	104	93%
Computer and Information Sciences	Game Design	211	74%
Computer and Information Sciences	Java Programming	139	80%
Computer and Information Sciences	Microsoft Office 2013	23	70%
Computer and Information Sciences	Social Media	170	85%
Computer and Information Sciences	Visual Basic.Net Programming	140	75%
Computer and Information Sciences	Web Design Basics HTML	124	91%
Engineering and Technology	Bioethics	90	90%
English Language and Literature	AP English Language & Composition (A)	31	90%
English Language and Literature	AP English Language & Composition (B)	32	97%
English Language and Literature	AP English Literature & Composition (A)	51	88%
English Language and Literature	AP English Literature & Composition (B)	37	97%
English Language and Literature	Composition - Beginning	115	89%
English Language and Literature	Composition - Advanced	42	88%
English Language and Literature	Reading (6-8)	<10	83%
English Language and Literature	English 6 (A)	<10	100%
English Language and Literature	English 6 (B)	<10	100%
English Language and Literature	English 7 (A)	<10	43%
English Language and Literature	English 7 (B)	<10	29%
English Language and Literature	English 8 (A)	14	86%
English Language and Literature	English 8 (B)	12	75%
English Language and Literature	English 9 (A)	100	55%
English Language and Literature	English 9 (B)	90	67%
English Language and Literature	English 10 (A)	100	57%
English Language and Literature	English 10 (B)	115	65%
English Language and Literature	American Literature (A)	222	86%
English Language and Literature	American Literature (B)	184	91%
English Language and Literature	British Literature (A)	181	78%
English Language and Literature	British Literature (B)	189	81%
English Language and Literature	Mythology and Folklore	173	93%
English Language and Literature	Reading	47	91%

NCES Subject Area	Course	Enroll Count	Pass Rate
English Language and Literature	World Literature	90	87%
Fine and Performing Arts	American Film Survey	194	84%
Fine and Performing Arts	AP Art History (A)	36	94%
Fine and Performing Arts	AP Art History (B)	30	100%
Fine and Performing Arts	Art Appreciation	144	87%
Fine and Performing Arts	Digital Photography	193	85%
Fine and Performing Arts	Directors of the Golden Age	58	93%
Fine and Performing Arts	Music Appreciation	231	89%
Foreign Language and Literature	American Sign Language 1 (A)	1097	76%
Foreign Language and Literature	American Sign Language 1 (B)	658	91%
Foreign Language and Literature	American Sign Language 2 (A)	298	92%
Foreign Language and Literature	American Sign Language 2 (B)	254	92%
Foreign Language and Literature	AP Chinese (A)	17	65%
Foreign Language and Literature	AP Chinese (B)	12	92%
Foreign Language and Literature	AP French (A)	11	91%
Foreign Language and Literature	AP French (B)	<10	100%
Foreign Language and Literature	AP Spanish (A)	27	93%
Foreign Language and Literature	AP Spanish (B)	26	85%
Foreign Language and Literature	Chinese 1 (A)	73	78%
Foreign Language and Literature	Chinese 1 (B)	60	88%
Foreign Language and Literature	Chinese 2 (A)	52	92%
Foreign Language and Literature	Chinese 2 (B)	43	86%
Foreign Language and Literature	Chinese 3 (A)	44	89%
Foreign Language and Literature	Chinese 3 (B)	36	97%
Foreign Language and Literature	Chinese 4 (A)	45	89%
Foreign Language and Literature	Chinese 4 (B)	30	93%
Foreign Language and Literature	French 1 (A) (6-8)	19	79%
Foreign Language and Literature	French 1 (B) (6-8)	11	82%
Foreign Language and Literature	French 2 (A) (6-8)	<10	100%
Foreign Language and Literature	French 2 (B) (6-8)	<10	100%
Foreign Language and Literature	French 1 (A)	248	79%
Foreign Language and Literature	French 1 (B)	169	85%
Foreign Language and Literature	French 2 (A)	123	85%
Foreign Language and Literature	French 2 (B)	101	89%
Foreign Language and Literature	French 3 (A)	49	86%
Foreign Language and Literature	French 3 (B)	33	82%
Foreign Language and Literature	French 4 (A)	26	81%
Foreign Language and Literature	French 4 (B)	24	88%
Foreign Language and Literature	German 1 (A) (6-8)	11	91%
Foreign Language and Literature	German 1 (B) (6-8)	11	91%
Foreign Language and Literature	German 1 (A)	256	75%

NCES Subject Area	Course	Enroll Count	Pass Rate
Foreign Language and Literature	German 1 (B)	153	88%
Foreign Language and Literature	German 2 (A)	121	91%
Foreign Language and Literature	German 2 (B)	112	89%
Foreign Language and Literature	German 3 (A)	44	75%
Foreign Language and Literature	German 3 (B)	20	85%
Foreign Language and Literature	German 4 (A)	25	92%
Foreign Language and Literature	German 4 (B)	13	100%
Foreign Language and Literature	Japanese 1 (A)	212	72%
Foreign Language and Literature	Japanese 1 (B)	123	84%
Foreign Language and Literature	Japanese 2 (A)	76	89%
Foreign Language and Literature	Japanese 2 (B)	60	92%
Foreign Language and Literature	Latin 1 (A)	135	86%
Foreign Language and Literature	Latin 1 (B)	79	92%
Foreign Language and Literature	Latin 2 (A)	63	92%
Foreign Language and Literature	Latin 2 (B)	57	93%
Foreign Language and Literature	Latin 3 (A)	11	82%
Foreign Language and Literature	Latin 3 (B)	<10	86%
Foreign Language and Literature	Spanish 1 (A) (6-8)	20	80%
Foreign Language and Literature	Spanish 1 (B) (6-8)	18	94%
Foreign Language and Literature	Spanish 1 (A)	428	45%
Foreign Language and Literature	Spanish 1 (B)	184	82%
Foreign Language and Literature	Spanish 2 (A) (6-8)	<10	88%
Foreign Language and Literature	Spanish 2 (B) (6-8)	<10	100%
Foreign Language and Literature	Spanish 2 (A)	192	80%
Foreign Language and Literature	Spanish 2 (B)	183	84%
Foreign Language and Literature	Spanish 3 (A)	109	78%
Foreign Language and Literature	Spanish 3 (B)	79	86%
Foreign Language and Literature	Spanish 4 (A)	78	92%
Foreign Language and Literature	Spanish 4 (B)	72	94%
Health Care Sciences	Medical Terminology	615	89%
Life and Physical Sciences	Anatomy & Physiology (A)	208	86%
Life and Physical Sciences	Anatomy & Physiology (B)	99	94%
Life and Physical Sciences	AP Biology (A)	77	90%
Life and Physical Sciences	AP Biology (B)	64	91%
Life and Physical Sciences	AP Chemistry (A)	29	62%
Life and Physical Sciences	AP Chemistry (B)	14	93%
Life and Physical Sciences	AP Environmental Science (A)	39	90%
Life and Physical Sciences	AP Environmental Science (B)	31	97%
Life and Physical Sciences	AP Physics 1 (A)	64	73%
Life and Physical Sciences	AP Physics 1 (B)	40	90%
Life and Physical Sciences	AP Physics 2 (A)	22	82%

NCES Subject Area	Course	Enroll Count	Pass Rate
Life and Physical Sciences	AP Physics C - Mechanics (A)	37	92%
Life and Physical Sciences	AP Physics C - Mechanics (B)	27	96%
Life and Physical Sciences	Astronomy	336	87%
Life and Physical Sciences	Biology (A)	130	78%
Life and Physical Sciences	Biology (B)	119	83%
Life and Physical Sciences	Chemistry (A)	135	59%
Life and Physical Sciences	Chemistry (B)	123	54%
Life and Physical Sciences	Earth Science (A)	90	74%
Life and Physical Sciences	Earth Science (B)	36	81%
Life and Physical Sciences	Environmental Science (A)	79	92%
Life and Physical Sciences	Environmental Science (B)	33	97%
Life and Physical Sciences	Oceanography (A)	242	84%
Life and Physical Sciences	Oceanography (B)	53	92%
Life and Physical Sciences	Physical Science (A)	35	80%
Life and Physical Sciences	Physical Science (B)	35	71%
Life and Physical Sciences	Physics (A)	147	93%
Life and Physical Sciences	Physics (B)	119	87%
Life and Physical Sciences	Science 6 (A)	<10	100%
Life and Physical Sciences	Science 6 (B)	<10	100%
Life and Physical Sciences	Science 7 (A)	<10	71%
Life and Physical Sciences	Science 7 (B)	12	58%
Life and Physical Sciences	Science 8 (A)	<10	63%
Life and Physical Sciences	Science 8 (B)	<10	67%
Life and Physical Sciences	Science Tracks	<10	NA
Mathematics	Algebra 1	<10	NA
Mathematics	Algebra 1 (A)	181	66%
Mathematics	Algebra 1 (B)	191	79%
Mathematics	Algebra 2 (A)	213	73%
Mathematics	Algebra 2 (B)	232	79%
Mathematics	AP Calculus AB (A)	53	91%
Mathematics	AP Calculus AB (B)	46	96%
Mathematics	AP Calculus BC (A)	47	91%
Mathematics	AP Calculus BC (B)	50	96%
Mathematics	AP Statistics (A)	84	92%
Mathematics	AP Statistics (B)	68	94%
Mathematics	Calculus (A)	42	86%
Mathematics	Calculus (B)	27	81%
Mathematics	Geometry (A)	196	70%
Mathematics	Geometry (B)	209	82%
Mathematics	Math Tracks	91	NA
Mathematics	Mathematics 6 (A)	<10	100%

NCES Subject Area	Course	Enroll Count	Pass Rate
Mathematics	Mathematics 6 (B)	<10	100%
Mathematics	Mathematics 7 (A)	10	50%
Mathematics	Mathematics 7 (B)	12	50%
Mathematics	Mathematics 8 (A)	<10	71%
Mathematics	Mathematics 8 (B)	<10	71%
Mathematics	Mathematics of Baseball	233	88%
Mathematics	Personal Finance (A)	407	90%
Mathematics	Pre-Algebra (A)	27	74%
Mathematics	Pre-Algebra (B)	14	71%
Mathematics	Pre-Calculus (A)	165	90%
Mathematics	Pre-Calculus (B)	149	83%
Mathematics	Probability and Statistics (A)	115	88%
Mathematics	Probability and Statistics (B)	32	88%
Mathematics	Trigonometry	80	90%
Miscellaneous	Career Planning	341	93%
Miscellaneous	Careers - Find Your Future	267	86%
Miscellaneous	Employability Skills	201	85%
Miscellaneous	Leadership Skills Development	61	82%
Miscellaneous	Leadership Skills Development (A)	<10	44%
Miscellaneous	Leadership Skills Development (B)	<10	50%
Miscellaneous	Study Skills	408	79%
Physical, Health, and Safety Education	Health	649	87%
Physical, Health, and Safety Education	Personal Fitness	464	89%
Public, Protective, and Government Service	Forensic Science - Introduction	454	87%
Public, Protective, and Government Service	Forensic Science - Advanced	63	92%
Religious Education and Theology	World Religions	90	87%
Social Sciences and History	Anthropology (A)	93	97%
Social Sciences and History	AP Macroeconomics	140	91%
Social Sciences and History	AP Microeconomics	115	95%
Social Sciences and History	AP Psychology	362	91%
Social Sciences and History	AP U.S. Government & Politics	124	88%
Social Sciences and History	AP U.S. History (A)	69	80%
Social Sciences and History	AP U.S. History (B)	45	91%
Social Sciences and History	AP World History (A)	57	82%
Social Sciences and History	AP World History (B)	49	90%
Social Sciences and History	Archaeology	32	97%
Social Sciences and History	Civics	499	92%
Social Sciences and History	Criminology	388	93%
Social Sciences and History	Economics	605	90%
Social Sciences and History	Native American History	58	93%
Social Sciences and History	Personal Finance	364	90%

NCES Subject Area	Course	Enroll Count	Pass Rate
Social Sciences and History	Philosophy	118	91%
Social Sciences and History	Psychology	326	84%
Social Sciences and History	Sociology (A)	267	85%
Social Sciences and History	Sociology (B)	54	100%
Social Sciences and History	U.S. History & Geography (A)	219	68%
Social Sciences and History	U.S. History & Geography (B)	175	75%
Social Sciences and History	World Cultures 6 (A)	<10	86%
Social Sciences and History	World Cultures 6 (B)	<10	100%
Social Sciences and History	World Geography 7 (A)	13	92%
Social Sciences and History	World Geography 7 (B)	17	71%
Social Sciences and History	U.S. History 8 (A)	19	89%
Social Sciences and History	U.S. History 8 (B)	24	83%
Social Sciences and History	World History & Geography (A)	225	84%
Social Sciences and History	World History & Geography (B)	247	91%
Social Sciences and History	World History (A)	10	20%
Social Sciences and History	World History (B)	<10	83%

Figure 4. 2016-17 *Michigan Virtual* Student Performance Data by NCES Subject Area

NCES Subject Area	Attempted Count	Withdrawn	Completed/ Failed	Michigan Virtual Pass Rate	Statewide 15-16 Pass Rate
Agriculture, Food, and Natural Resources	151	0%	7%	93%	67%
Business and Marketing	1,127	1%	12%	88%	69%
Communications and Audio/Visual Tech.	124	1%	22%	77%	67%
Computer and Information Sciences	1,037	1%	16%	83%	72%
Engineering and Technology	90	0%	10%	90%	58%
English Language and Literature	1,854	2%	17%	81%	54%
Fine and Performing Arts	886	1%	11%	88%	62%
Foreign Language and Literature	6,561	1%	17%	82%	59%
Health Care Sciences	615	1%	10%	89%	78%
Life and Physical Sciences	2,504	2%	15%	83%	57%
Mathematics	2,913	2%	15%	83%	52%
Miscellaneous	1,289	2%	13%	85%	59%
Physical, Health, and Safety Education	1,072	1%	12%	88%	62%
Public, Protective, and Government Service	517	1%	11%	88%	70%
Religious Education and Theology	90	3%	10%	87%	83%
Social Sciences and History	4,735	1%	11%	88%	59%
Total	**25,565**	**1%**	**14%**	**84%**	**58%**

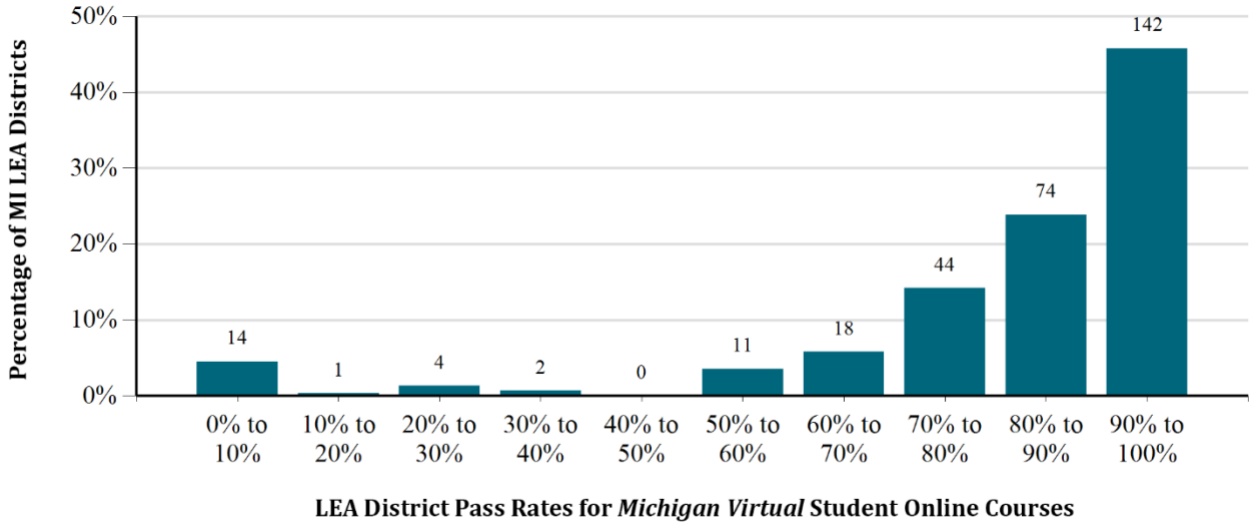
Note: Percentages may not sum to 100% due to rounding. Statewide 15-16 Pass Rate is based on Table C1 of Michigan's K-12 Virtual Learning Effectiveness Report 2015-16 (p. 23). Those rates may be negligibly higher if "Audited" enrolls were removed from calculations.

Figure 5. 2016-17 *Michigan Virtual* Student Performance Data by NCES Subject Area and Enrollment Reason

NCES Subject Area	Course Unavailable Locally	Scheduling Conflict	Learner Preference	Credit Recovery	Other
Agriculture, Food, and Natural Resources	93%	100%	90%	-	95%
Business and Marketing	89%	88%	86%	50%	84%
Communications and Audio/Visual Tech.	82%	33%	79%	100%	73%
Computer and Information Sciences	83%	87%	82%	<10%	82%
Engineering and Technology	91%	100%	85%	-	86%
English Language and Literature	88%	94%	82%	58%	73%
Fine and Performing Arts	89%	86%	88%	50%	85%
Foreign Language and Literature	80%	85%	84%	62%	86%
Health Care Sciences	89%	89%	92%	-	88%
Life and Physical Sciences	87%	87%	80%	56%	80%
Mathematics	92%	87%	80%	62%	80%
Miscellaneous	88%	92%	83%	47%	79%
Physical, Health, and Safety Education	96%	88%	82%	89%	88%
Public, Protective, and Government Service	89%	88%	82%	50%	91%
Religious Education and Theology	87%	100%	77%	100%	90%
Social Sciences and History	91%	93%	85%	53%	88%
Total	**86%**	**89%**	**83%**	**59%**	**83%**

Note: Percentages may not sum to 100% due to rounding.

Figure 6. 2016-17 *Michigan Virtual* Student Performance Data by LEA Districts



Appendix B – Michigan Virtual Professional Learning Data

Figure 1. 2016-17 *Michigan Virtual* Professional Learning Courses

Course Title	Enroll Count
10 Free Microsoft Tools that Make Learning Fun!	61
21st Century Skills	19
A to Z Grant Writing	34
Acknowledgements in SWPBIS: Understanding the How	164
Acknowledgements in SWPBIS: Understanding the Why	128
Active Shooter On Campus (A.L.I.C.E.)	220
Advanced Microsoft Excel 2010	<10
Aiding Students with Learning Disabilities	22
An Introduction to Teaching ESL/EFL	17
Anger Management & Effective Discipline to Prevent Violence, Part I	28
Anger Management & Effective Discipline to Prevent Violence, Part II	<10
AOD: Catechist Certification - Topic 1	193
AOD: Catechist Certification - Topic 2	156
AOD: Catechist Certification - Topic 3	149
AOD: Catechist Certification - Topic 4	148
AOD: Catechist Certification - Topic 5	148
AOD: Catechist Certification - Topic 6	147
Art Safety for Educational Facilities	51
Assessment and Grading for Student Achievement	<10
Assessment and the Common Core State Standards	<10
Authentic Innovation in the 21st Century Classroom	<10
Basic First Aid	856
Becoming a Culturally Responsive Teacher	<10
Becoming a Reflective Teacher	<10
Beginning Conversational French	10
Behavior Science and the Three Term Contingency	92
Best Practices for Teaching African American Boys	<10
Best Practices in Defining Problem Behaviors	170
Big Ideas of Early Reading: Fluency	108
Big Ideas of Early Reading: Phonics	114
Big Ideas of Early Reading: Vocabulary	96
Big Ideas of School-wide Positive Behavioral Interventions and Support	156
Blended Learning with Office 365	29
Blogging and Podcasting for Beginners	21
Bloodborne Pathogens	8,673
Bloodborne Pathogens for Research and Campus Activities	321
Book Study — Learning First, Technology Second	45
Brightspace Instructor Training	17
Brightspace Learner Training	14

Course Title	Enroll Count
Brightspace LOR Training	<10
Building Academic Language, Grades K-6	<10
Building Level Implementation	78
Building Teams That Work	19
Campus Emergency Action Plans	53
Challenging Gifted and All Students with the Cluster Grouping Model	<10
Changing Minds to Address Poverty in the Classroom	47
Character Education, Part I	21
Character Education, Part II	<10
Charlotte Danielson's A Framework for Teaching	<10
Chemical Hygiene Plan	14
Chemical Safety	27
Coaching Role	95
Common Core in ELA: Instructional Shifts for Effective Implementation, Grades 3-5	<10
Common Core in ELA: Instructional Shifts for Effective Implementation, Grades 6-8	<10
Common Core in ELA: Instructional Shifts for Effective Implementation, Grades 9-12	<10
Common Core in ELA: Instructional Shifts for Effective Implementation, Grades K-2	<10
Common Core in Mathematics: Instructional Shifts for Effective Implementation, Grades 9-12	<10
Common Core Standards for English Language Arts K-5	<10
Common Core State Standards in Literacy, Grades 3-8	<10
Common Core State Standards in Mathematics, Grades 3 - 8	<10
Computer Skills for the Workplace	11
Conflict Resolution Strategies	739
Content Literacy: Grades 6-12	<10
Correcting Behavior Fluently	163
CPR Refresher	198
Creating a Classroom Website	15
Creating a Professional Learning Community at Work: Foundational Concepts and Practice	<10
Creating Classroom Centers	51
Creating the Inclusive Classroom: Strategies for Success	15
Curriculum Leadership Institute - Phase I	26
Curriculum Leadership Institute - Phase II	24
Data, Data Everywhere	<10
Data-Driven Decision Making	<10
Deeper Dialogue: Teaching with Poverty in Mind	10
Deeper Dialogue: Teaching with Poverty in Mind Chapter 1	197
Deeper Dialogue: Teaching with Poverty in Mind Chapter 1	42
Deeper Dialogue: Teaching with Poverty in Mind Chapter 2	36
Deeper Dialogue: Teaching with Poverty in Mind Chapter 2	125
Deeper Dialogue: Teaching with Poverty in Mind Chapter 3	128
Deeper Dialogue: Teaching with Poverty in Mind Chapter 3	29

Course Title	Enroll Count
Deeper Dialogue: Teaching with Poverty in Mind Chapter 4	148
Deeper Dialogue: Teaching with Poverty in Mind Chapter 4	24
Deeper Dialogue: Teaching with Poverty in Mind Chapter 5	18
Deeper Dialogue: Teaching with Poverty in Mind Chapter 5	172
Deeper Dialogue: Teaching with Poverty in Mind Chapter 6	162
Deeper Dialogue: Teaching with Poverty in Mind Chapter 6	13
Designing and Developing in the Blended Classroom	209
Differentiated Instruction in the Classroom	22
Differentiating K-12 Assessments	<10
Differentiating Teaching and Instruction: What, How, Why?	<10
Differentiation and Assessment for Middle School	<10
Differentiation and the Brain	<10
Digital Storytelling on ANY Device with Sway	11
Discover Sign Language	25
Discrimination in the Workplace	42
Diversity in the Workplace	73
Driving On and Off Campus	<10
Early Literacy Coaches Online Community	111
Early Warning System: Installation of an Early Warning System	74
Early Warning System: Why an Early Warning System	70
Early Warning Systems Module 1	<10
Early Warning Systems Module 2	<10
Elementary Reading Intervention Strategies	16
Emergency Action Plans for Office Employees	28
Emergency Response	151
Empowering Students With Disabilities	25
Enhance Assessment for the 21st Century Classroom	14
Enhancing Language Development in Childhood	12
Enhancing Your Curriculum through Art	<10
FERPA - Family Educational Rights and Privacy Act	1,102
Fire Safety	64
Fire Safety On Campus	14
Flu Symptoms and Prevention Strategies	33
Food Safety	793
Formative Assessment 101	24
Formative Assessment and Standards-Based Grading	<10
General Safety	31
Get Assertive!	24
Get Grants!	<10
GRACE Explorers	39
GRACE Investigators	43

Course Title	Enroll Count
Grading and Reporting for All Students	<10
Grading: A Guide to Effective Practice	<10
Grammar Refresher	29
Guided Reading and Writing: Strategies for Maximum Student Achievement	12
Guided Reading: Strategies for the Differentiated Classroom	13
Hand and Power Tool Safety	<10
Hazard Communication	276
Hazardous Materials Management	44
Hazardous Waste Awareness (RCRA)	12
HIPAA Compliance Training	810
Human Anatomy and Physiology	13
Human Anatomy and Physiology II	<10
iEducator - Learning Cycle Development	10
ILC: Implementing Effective Instruction	249
ILC: Implementing Effective Instruction Non-Facilitated	<10
Implementation Science: An Overview	29
Implementing Professional Learning Communities	43
Importance of Universal Screening Within an MTSS Model	33
Improving Instruction through Strategic Conversations with Teachers	<10
Individual Excellence	60
Integrating Technology in the Classroom	<10
Interpersonal Communication	<10
Intro to Online Teaching and Learning	175
Introduction to Algebra	12
Introduction to Biology	<10
Introduction to Chemistry	<10
Introduction to Microsoft Excel 2010	<10
Introduction to Microsoft Excel 2013	11
Introduction to Microsoft PowerPoint 2013	<10
Introduction to Microsoft Word 2013	<10
Introduction to OSHA	25
Introduction to Phenomenal Science	162
Keys to Effective Communication	16
Kitchen Equipment Safety	17
Laboratory Safety – Biological Hazards	13
Laboratory Safety – Chemical Hazards	<10
Laboratory Safety in Research and Education	<10
Latex Allergy	<10
Lawful Hiring Practices	24
Lawful Terminations and Employee Separation	23
Leadership	17

Course Title	Enroll Count
learn.BLEND.lead	27
Learning Without Borders with Mystery Skype	11
Manage It All: Students, Curriculum, and Time	<10
MASA Horizon Leadership Academies: Navigate Leadership	36
Mastering Public Speaking	<10
MCAN: Module 1 - Building a College-Going Culture for All Students	<10
MDE Assessment Security	74
MDE Program Evaluation Tool	27
Measuring Implementation Fidelity at the School Level	14
Mentor Site Institute	107
Mentor Webinars	<10
Mentors Network	113
MI Excel Coaching: Being A Math Coach	117
MI Excel Coaching: Being A Reading Coach	133
MI Excel Coaching: Being A Science Coach	69
MI Excel Coaching: Being A Social Studies Coach	68
MI Excel Coaching: Being A Writing Coach	82
MI Excel Coaching: Module 1 - Coaching Basics	247
MI Excel Coaching: Module 2 - Using Data to Inform Instruction	166
MI Excel Coaching: Module 3 - Coaching Instructional Planning & Practice	129
MI Excel Coaching: Module 4 - Multi-Tiered System of Supports	140
MIBLSI Development Shells	<10
Michigan Continuous School Improvement (MI-CSI)	61
Microsoft Innovative Educator Teacher Academy	<10
Microsoft PowerPoint 2013 in the Classroom	<10
Monitoring Behavior	69
Motivating and Engaging Students	12
Motivating Underachievers Using Response to Intervention and Differentiated Instruction	<10
Multi-Tier System of Support Overview	59
Music Made Easy	10
MVS Action Research PLC	12
MyPD Beta	37
No-Nonsense Nurturer Classroom	<10
Occupational Safety and Health Programs	<10
Office Safety	<10
Online Course Facilitation, 6-12	17
Online Mentor Training	<10
Online Mentor Virtual Mini-Conference	31
OSHA Reporting and Recordkeeping	14
Overview of Tier 2 Behavior Supports	46
PBIS Assessment Coordinator Certification Module	79

Course Title	Enroll Count
Personal Finance	<10
Personal Protective Equipment	32
Podcast PD:	<10
Portable Fire Extinguishers	13
POWERful Coaching	<10
Problem Solving with SWIS Data: School-wide	39
PTL: Application	148
PTL: Module 1	166
PTL: Module 2	100
PTL: Module 3	110
PTL: Module 4	87
PTL: Module 5	112
PTL: Module 6	114
PTL: Module 7	100
PTL: Module 8	112
PTL: Orientation	137
Race to the Top Module 1	40
Reading Tiered Fidelity Inventory	95
Reading Tiered Fidelity Inventory Facilitator Training	48
Ready, Set, Read!	12
Relationally Responsive Classroom Management	<10
Response to Intervention: Reading Strategies That Work	19
Sexual Harassment and Discrimination for Employees	927
Sexual Harassment Prevention for Managers	38
SIF and DIF 2.0 Overview Course	<10
Singapore Math Strategies: Advanced Model Drawing for Grades 6-9	<10
Singapore Math: Number Sense and Computational Strategies	11
Slips, Trips and Falls	<10
Soft Skills of Coaching	70
Solving Classroom Discipline Problems	44
Solving Classroom Discipline Problems II	15
Spanish in the Classroom	20
Speed Spanish	17
Speed Spanish II	<10
Speed Spanish III	<10
Speedgeeking Powered by Microsoft - 30 Apps to Transform Learning	23
Student Engagement	82
Student Risk Screening Scale	28
Surveys of Enacted Curriculum: Promoting a Culture of Growth and Support (Facilitator Training)	57
Survival Kit for New Teachers	<10
Survival Strategies for New Teachers, Grades 9-12	<10

Course Title	Enroll Count
SWPBIS: Identifying 3-5 Behavioral Expectations	63
Teaching Adult Learners	<10
Teaching Behavior Expectations	95
Teaching Boys in Poverty	<10
Teaching English Language Learners Across the Curriculum, Part I	<10
Teaching ESL/EFL Reading	<10
Teaching High School Students	<10
Teaching in the Blended and Online Classroom	156
Teaching Math: Grades 4-6	<10
Teaching Reading and Comprehension to English Learners, K-5	<10
Teaching Science: Grades 4-6	<10
Teaching Smarter With SMART Boards	<10
Teaching Students With ADHD	29
Teaching Students With Autism: Strategies for Success	22
Teaching Students with Learning Disabilities	<10
Teaching Writing: Grades 4-6	<10
Teaching, Learning, and Leading in the Digital Age	<10
Technology Applications for Teaching and Supporting the Struggling Reader	<10
The Creative Classroom	12
The Differentiated Instruction and Response to Intervention Connection	<10
Tier 1 Elementary Problem Solving Day 1 Trainer Support Session	14
Tier 1 Reading Elementary Grade Level Problem Solving Day 2 Trainer Support Session	13
Title IX/Sexual Misconduct at Educational Facilities	43
Trainer Support Session District Mid-Year Continuous Data Review	<10
Trainer Support Session for Check-In, Check-Out	<10
Trainer Support Session for District Fall Continuous Data Review	<10
Trainer Support Session for District Fall Data Review	13
Trainer Support Session for Elementary Spring Data Review	<10
Trainer Support Session for Elementary Spring Data Review Coaching Support Session	<10
Trainer Support Session for Fall Data Review: Elementary & Secondary Combined	13
Trainer Support Session for Fall Data Review: Ele. & Sec. Combined Coaching Support Session	<10
Trainer Support Session for ISD Fall Continuous Data Review	<10
Trainer Support Session for ISD Systems Review	<10
Trainer Support Session for Secondary Spring Data Review	<10
Trainer Support Session for Secondary Spring Data Review Coaching Support Session	<10
Trainer Support Session for Secondary Winter Data Review Coaching Support Session	<10
Trainer Support Session for Tier 1 Elementary Reading Systems	11
Trainer Support Session for Tier 1 Elementary Reading Systems Coaching Support Session	11
Trainer Support Session for Winter Data Review Elementary and Secondary	<10
Trainer Support Session ISD Mid-Year Continuous Data Review	<10
Transforming School Culture	<10

Course Title	Enroll Count
Understanding Adolescents	27
Understanding Blended Learning for School Leaders	89
Understanding Culture and Race	<10
Understanding the Digital Generation	<10
Universal Screening Flowchart	28
Using Data for Meaningful Classroom Change	<10
Using Digital Media to Enhance Learning	<10
Using GIS in Your School and Community - Module 1	75
Using GIS in Your School and Community - Module 2	65
Using GIS in Your School and Community - Module 3	43
Using GIS in Your School and Community - Module 4	36
Using the Internet in the Classroom	<10
Using Web 2.0 in Teaching and Instruction	<10
Violence in the Workplace	137
Virtual Reality: A Day in the Life of a School Administrator	30
Working With Lasers in Research and Education	<10
Writing Essentials	<10
Writing for Children	16
Writing for ESL	<10

Figure 2. Districts Served by *Michigan Virtual* with Professional Learning in 2016-17

Intermediate School Districts

Allegan Area ESA
Alpena-Montmorency-Alcona ESD
Barry ISD
Bay-Arenac ISD
Berrien RESA
Branch ISD
C.O.O.R. ISD
Calhoun ISD
Charlevoix-Emmet ISD
Cheb-Otsego-Presque Isle ESD
Clare-Gladwin Regional Education Service District
Clinton County RESA
Copper Country ISD
Delta-Schoolcraft ISD
Dickinson-Iron ISD
Eastern Upper Peninsula ISD
Eaton RESA
Genesee ISD
Gogebic-Ontonagon ISD
Gratiot-Isabella RESD
Hillsdale ISD
Huron ISD
Ingham ISD
Ionia ISD
Iosco RESA
Jackson ISD
Kalamazoo RESA
Kent ISD
Lapeer ISD
Lenawee ISD
Lewis Cass ISD
Macomb ISD
Manistee ISD
Marquette-Alger RESA
Mecosta-Osceola ISD
Menominee ISD
Midland County ESA
Monroe ISD
Montcalm Area ISD
Muskegon Area ISD
Newaygo County RESA
Oakland Schools
Ottawa Area ISD
Saginaw ISD
Shiawassee Regional ESD
St. Clair County RESA
St. Joseph County ISD
Traverse Bay Area ISD
Tuscola ISD
Van Buren ISD
Washtenaw ISD
Wayne RESA
West Shore ESD
Wexford-Missaukee ISD

LEA Districts

Adams Township S.D.
Adrian Public Schools
Airport Community Schools
Alba Public Schools
Alcona Community Schools
Allegan Public Schools
Allen Park Public Schools
Allendale Public Schools
Alma Public Schools
Almont Community Schools
Alpena Public Schools
Anchor Bay School District
Ann Arbor Public Schools
Arenac Eastern School District
Arvon Township S.D.
Ashley Community Schools
Athens Area Schools
Atherton Community Schools
Au Gres-Sims School District
Avondale School District
Bad Axe Public Schools
Bangor Public S. (Van Buren)
Bangor Township S/D #8
Bangor Township Schools
Bark River-Harris S.D.
Bath Community Schools
Battle Creek Public Schools
Bay City School District
Bear Lake Schools
Beaverton Rural Schools
Bedford Public Schools
Beecher Community S.D.
Belding Area School District
Bentley Community S.D.
Benton Harbor Area Schools
Benzie County Central Schools
Berkley School District
Berlin Township S/D #3
Berrien Springs Public Schools
Big Bay De Noc School District
Big Rapids Public Schools
Birmingham Public Schools
Bloomfield Hills Schools
Bloomingdale Public S.D.
Boyne City Public Schools
Brandon School District in the Counties of Oakland and Lapeer
Brandywine Community S.
Breckenridge Community S.
Breitung Township S.D.
Bridgeport-Spaulding Com. SD
Brighton Area Schools
Brimley Area Schools
Brown City Community S.
Buchanan Community Schools
Buckley Community Schools
Bullock Creek School District
Byron Area Schools
Cadillac Area Public Schools
Caledonia Community Schools
Camden-Frontier School
Capac Community Schools

Carman-Ainsworth Community Schools
Carrollton Public Schools
Carsonville-Port Sanilac S.D.
Cass City Public Schools
Cassopolis Public Schools
Cedar Springs Public Schools
Center Line Public Schools
Central Lake Public Schools
Central Montcalm Public S.
Charlevoix Public Schools
Charlotte Public Schools
Cheboygan Area Schools
Chelsea School District
Chippewa Hills School District
Chippewa Valley Schools
Clare Public Schools
Clarkston Community S.D.
Clawson Public Schools
Climax-Scotts Community S.
Clinton Community Schools
Clintondale Community S.
Clio Area School District
Coldwater Community S.
Coleman Community Schools
Coloma Community Schools
Columbia School District
Comstock Public Schools
Concord Community Schools
Constantine Public S.D.
Coopersville Area Public S.D.
Corunna Public Schools
Covert Public Schools
Crawford AuSable Schools
Crestwood School District
Croswell-Lexington Com. S.
Davison Community Schools
Dearborn City School District
Dearborn Heights S.D. #7
Decatur Public Schools
Delton Kellogg Schools
DeTour Area Schools
Detroit Public S.C.D.
DeWitt Public Schools
Dexter Community S.D.
Dollar Bay-Tamarack City Area K-12 School
Dowagiac Union S.D.
Dryden Community Schools
Dundee Community Schools
Durand Area Schools
East China School District
Eastpointe Community S.
East Grand Rapids Public S.
East Jackson Community S.
East Lansing School District
Eaton Rapids Public Schools
Eau Claire Public Schools
Ecorse Public Schools
Education Achievement Authority of Michigan
Edwardsburg Public Schools
Elkton-Pigeon-Bay Port Laker Schools
Engadine Consolidated S.
Escanaba Area Public Schools
Essexville-Hampton Public S.
Ewen-Trout Creek C.S.D.
Fairview Area School District
Farmington Public S.D.
Fennville Public Schools
Fenton Area Public Schools
Flat Rock Community Schools
Flint, S.D. of the City of
Flushing Community Schools
Forest Hills Public Schools
Fowler Public Schools
Fowlerville Community S.
Frankenmuth School District
Fraser Public Schools
Freeland Community S.D.
Fruitport Community Schools
Fulton Schools
Galesburg-Augusta Com. S.
Garden City Public Schools
Gaylord Community Schools
Genesee School District
Gibraltar School District
Gladwin Community Schools
Glen Lake Community Schools
Gobles Public School District
Godwin Heights Public S.
Goodrich Area Schools
Grand Blanc Community S.
Grand Haven Area Public S.
Grand Ledge Public Schools
Grand Rapids Public Schools
Grandville Public Schools
Grant Public School District
Greenville Public Schools
Grosse Ile Township Schools
Grosse Pointe Public Schools
Gull Lake Community Schools
Gwinn Area Community S.
Hamilton Community Schools
Hamtramck, S.D. of the City of
Harbor Beach Community S.
Harper Creek Community S.
Harper Woods, The School District of the City of
Hartford Public Schools
Hartland Consolidated Schools
Haslett Public Schools
Hastings Area School District
Hazel Park, S.D. of the City of
Hemlock Public S.D.
Hesperia Community Schools
Highland Park City Schools
Holland City School District
Holly Area School District
Holt Public Schools
Homer Community S.D.
Hopkins Public Schools
Houghton Lake Community S.
Houghton-Portage Twp. S.D.
Howell Public Schools
Hudsonville Public S.D.
Huron School District
Huron Valley Schools
Ida Public School District
Imlay City Community Schools
Inland Lakes Schools
Ionia Public Schools
Iron Mountain Public Schools
Ironwood Area Schools of

Gogebic County
Jackson Public Schools
Jefferson Schools (Monroe)
Jenison Public Schools
Johannesburg-Lewiston Area Schools
Kalamazoo Public Schools
Kaleva Norman Dickson S.D.
Kalkaska Public Schools
Kearsley Community S.D.
Kelloggsville Public Schools
Kenowa Hills Public Schools
Kent City Community Schools
Kentwood Public Schools
L'Anse Area Schools
L'Anse Creuse Public Schools
Laingsburg Community S.
Lake City Area School District
Lake Fenton Community S.
Lake Orion Community S.
Lake Shore P.S. (Macomb)
Lakeshore S.D. (Berrien)
Lakeview Com. S. (Montcalm)
Lakeview P.S. (Macomb)
Lakeview S.D. (Calhoun)
LakeVille Community S.D.
Lakewood Public Schools
Lamphere Public Schools
Lansing Public School District
Lapeer Community Schools
Lawrence Public Schools
Lawton Community S.D.
Leslie Public Schools
Lincoln Consolidated S.D
Lincoln Park, S.D. of the City of
Linden Community Schools
Livonia Public Schools S.D.
Lowell Area Schools
Ludington Area School District
Mackinaw City Public Schools
Madison District P.S.
Madison S.D. (Lenawee)
Mancelona Public Schools
Manchester Community S.
Manistee Area Public Schools
Manistique Area Schools
Maple Valley Schools
Mar Lee School District
Marcellus Community Schools
Marion Public Schools
Marlette Community Schools
Marquette Area Public Schools
Marshall Public Schools
Mason Cons. S. (Monroe)
Mason County Central Schools
Mason County Eastern Schools
Mason Public S. (Ingham)
Mattawan Consolidated S.
McBain Rural Agricultural S.
Melvindale-North Allen Park S
Memphis Community Schools
Menominee Area Public S.
Meridian Public Schools
Mesick Consolidated Schools
Michigan Center S.D.
Midland Public Schools
Milan Area Schools
Millington Community Schools
Mio-AuSable Schools
Mona Shores Public S.D.
Monroe Public Schools
Montague Area Public Schools
Montrose Community Schools
Morley Stanwood Comm. S.
Morrice Area Schools
Mount Clemens Com. S.D.
Mt. Morris Consolidated S.
Mt. Pleasant City S.D.
Munising Public Schools
Muskegon Heights S.D.
Muskegon, P.S. of the City of
Napoleon Community Schools
New Haven Community S.
Newaygo Public S.D.
Niles Community Schools
North Branch Area Schools
North Central Area Schools
North Huron School District
North Muskegon Public S.
Northview Public Schools
Northville Public Schools
Northwest Community S.
Nottawa Community School
Novi Community S.D.
Oak Park, S.D. of the City of
Oakridge Public Schools
Okemos Public Schools
Olivet Community Schools
Onaway Area Com. S.D.
Onekama Cons. S.
Ontonagon Area S.D.
Orchard View Schools
Oscoda Area Schools
Otsego Public Schools
Ovid-Elsie Area Schools
Owosso Public Schools
Oxford Community Schools
Parchment School District
Paw Paw Public S.D.
Peck Community S.D.
Pellston Public Schools
Pennfield Schools
Perry Public Schools
Pewamo-Westphalia Com. S.
Pinckney Community Schools
Pinconning Area Schools
Pine River Area Schools
Plainwell Community Schools
Plymouth-Canton Com. S.
Pontiac City School District
Port Huron Area S.D.
Portage Public Schools
Portland Public Schools
Posen Consolidated S.D. No. 9
Potterville Public Schools
Public Schools of Calumet, Laurium & Keweenaw
Public Schools of Petoskey
Reading Community Schools
Redford Union S., D. No. 1
Reeths-Puffer Schools
Richmond Community Schools
River Rouge, S.D. of the City of
River Valley School District
Riverview Community S.D.

Rochester Community S.D.
Rockford Public Schools
Romulus Community Schools
Roseville Community Schools
Royal Oak Schools
Saginaw Township Com. S.
Saginaw, S.D. of the City of
Saline Area Schools
Sand Creek Community S.
Sandusky Community S.D.
Saranac Community Schools
Sault Ste. Marie Area Schools
Shepherd Public Schools
Sodus Township S/D #5
South Haven Public Schools
South Lake Schools
South Lyon Community S.
South Redford School District
Southfield Public S.D.
Southgate Community S.D.
Spring Lake Public Schools
Springport Public Schools
St. Johns Public Schools
St. Joseph Public Schools
St. Louis Public Schools
Standish-Sterling Comm. S.
Stockbridge Community S.
Sturgis Public Schools
Summerfield Schools
Swan Valley School District
Swartz Creek Community S.
Taylor School District
Tecumseh Public Schools
Thornapple Kellogg S.D.
Three Rivers Community S.
Traverse City Area Public S.
Troy School District
Ubly Community Schools
Union City Community S.
Unionville-Sebewaing Area S.D.
Utica Community Schools
Van Buren Public Schools
Van Dyke Public Schools
Vandercook Lake Public S.
Vassar Public Schools
Vicksburg Community Schools
Wakefield-Marenisco S.D.
Walled Lake Consolidated S.
Warren Consolidated Schools
Warren Woods Public Schools
Waterford School District
Waverly Community Schools
Wayland Union Schools
Wayne-Westland Com. S.D.
Webberville Community S.
West Bloomfield S.D.
West Branch-Rose City Area S.
West Ottawa Public S.D.
Western School District
Westwood Community S.D.
Westwood Heights Schools
White Cloud Public Schools
Whiteford Agricultural School District of the Counties of Lenawee and Monroe
Whitehall District Schools
Whitmore Lake Public S.D.
Whittemore-Prescott Area S.
Williamston Community S.
Woodhaven-Brownstown S.D.
Ypsilanti Community Schools
Zeeland Public Schools

PSA Districts

Academic and Career Education Academy
Academy for Business and Technology
Academy of Intern. Studies
Achieve Charter Academy
Advanced Tech. Academy
Alternative Educational Academy of Iosco County
Alternative Educational Acad. of Ogemaw County
American International Acad.
American Montessori Acad.
Arbor Preparatory H.S.
Arts Academy in the Woods
Bay City Academy
Blue Water Middle College
Bradford Academy
Bridge Academy
Burton Glen Charter Academy
Caniff Liberty Academy
Canton Preparatory H.S.
Cesar Chavez Academy
Chandler Park Academy
Charlevoix Montessori Academy for the Arts
Charlton Heston Academy
Chatfield School
Clara B. Ford Academy (SDA)
Concord Academy - Boyne
Concord Academy - Petoskey
Countryside Academy
Covenant House Acad. Detroit
Covenant House Academy Grand Rapids
Creative Technologies Acad.
Crescent Academy
Cross Creek Charter Academy
Da Vinci Institute
David Ellis Academy
David Ellis Academy West
Detroit Achievement Academy
Detroit Edison P.S.A.
Detroit Enterprise Academy
Detroit Leadership Academy
Detroit Premier Academy
Detroit Public Safety Academy
Dove Academy of Detroit
Dr. Joseph F. Pollack Academic Center of Excellence
Eagle's Nest Academy
East Shore Leadership Acad.
Eaton Academy
FlexTech High School

Four Corners Montess. Acad.
Francis Reh PSA
Frontier International Acad
GEE White Academy
Genesee STEM Academy
George Crockett Academy
George Washington Carver Academy
Global Heights Academy
Global Tech Academy
Grand Blanc Academy
Grand Rapids Child Discovery Center
Grand River Academy
Grand River Preparatory H.S.
Grand Traverse Academy
Flat River Academy
Great Lakes Academy
Great Lakes Cyber Academy
Greater Heights Academy
Hamilton Academy
Hamtramck Academy
Henry Ford Academy
Henry Ford Acad.: School for Creative Studies (PSAD)
Highland Park Public School Academy System
Hillsdale Preparatory School
Honey Creek Community S.
Hope Academy
Hope Academy of West MI
Hope of Detroit Academy
Innocademy
Innocademy Allegan Campus
Jalen Rose Leadership Acad.
Jefferson International Acad.
Joseph K. Lumsden Bahweting Anishnabe Academy
Joy Preparatory Academy
Kingsbury Country Day School
Lakeside Charter School
Landmark Academy
Life Skills Center of Pontiac
Lighthouse Academy
Linden Charter Academy
MacDowell Preparatory Acad.
Macomb Academy
Madison Academy
Madison-Carver Academy
Martin Luther King, Jr. Education Center Academy
Marvin L. Winans Academy of Performing Arts
Merritt Academy
Michigan Educational Choice Center
Michigan Great Lakes Virtual Academy
Michigan School for the Arts
Michigan Virtual Charter Acad.
Mildred C. Wells Prep. Acad.
Momentum Academy
Multicultural Academy
Muskegon Montessori Acad. for Environmental Change
Nah Tah Wahsh P.S.A.
New Bedford Academy
New Paradigm Glazer-Loving Academy
New School High
Noor International Academy
North Saginaw Charter Acad.
North Star Academy
Northridge Academy
Oakland Academy
Oakland International Acad.
Ojibwe Charter School
Old Redford Academy
Plymouth Educational Center Charter School
Regent Park Scholars Charter Academy
Renaissance P.S.A.
Richfield P.S.A.
Rutherford Winans Academy
Saginaw Learn to Earn Acad.
Sarah J. Webber Media Arts Academy
Southwest Detroit Com. S.
Star International Academy
Starr Detroit Academy
State Street Academy
Summit Academy North
Taylor International Academy
Taylor Preparatory H.S.
The James and Grace Lee Boggs School
Three Lakes Academy
Three Oaks P.S.A.
Timbuktu Academy
Tipton Academy
Universal Academy
Universal Learning Academy
University Prep. Acad. (PSAD)
University Preparatory Sci. and Math (PSAD)
Vista Meadows Academy
Voyageur Academy
Walker Charter Academy
Walton Charter Academy
Warrendale Charter Academy
Washington-Parks Academy
W-A-Y Academy
WAY Academy - Flint
WAY Michigan
Wellspring Preparatory H.S.
West Michigan Aviation Acad.
Weston Preparatory Academy
White Pine Academy
Will Carleton Charter School Academy
Windover High School
Woodland Park Academy
Woodland School
Woodward Academy
WSC Academy

Nonpublic Schools

Academy of Sacred Heart
All Saints Catholic School – Canton
All Saints Central School
All Saints Elementary
Assumption of the Blessed Virgin Mary Catholic School
Austin Catholic High School
Baldwin Road Church Academy
Bethel Lutheran School
Bethlehem Lutheran School
Bishop Baraga Catholic School - Iron Mountain
Bishop Foley Catholic H.S.
Borculo Christian School
Brookfield Academy – Rochester Hills
Brother Rice High School
Cabrini High School
Cardinal Mooney Cath. S.
Cedar Crest Academy
Concordia Lutheran North
Concordia Lutheran South
Corpus Christi Catholic School
Countryside Christian School
Cranbrook School
Crescent Acad. International
Cross Lutheran School
Daystar Christian Academy
DeLaSalle Collegiate H.S.
Detroit Country Day Jr. School
Detroit Country Day Lower S.
Detroit Cristo Rey High School
Divine Child Elementary S.
Divine Child High School
Eagle Creek Academy
Ebenezer Christian School
Escanaba SDA Elementary S.
Eton Academy
Everest Academy
Faith Baptist School
Farber Hebrew Day School – Yeshivat Akiva
Fr. Gabriel Richard H.S.
Franklin Road Christian S.
Fremont Christian School
Gabriel Richard Catholic H.S.
Genesee Academy
Gesu Elementary School
Grand Rapids Christian Ele. S.
Grand Rapids Christian H.S.
Greenhills School
Guardian Angels School
Hackett Catholic Prep
Heritage Christian School – Hudsonville
Hillsdale Academy
Holland Christian High School
Holy Angels Elementary S.
Holy Cross Catholic School
Holy Family Regional School
Holy Family S. - Grand Blanc
Holy Name S. - Birmingham
Holy Redeemer Elementary S.
Holy Spirit Roman Catholic S.
Holy Spirit School
Huron Valley Catholic School
Immaculate Conception S. - Ira
Immaculate Conception Ukranian School
Immaculate Heart of Mary S.
Immanuel - St. James Luth. S
Immanuel Luth. S. - Bay City
Japhet School
John Paul II Catholic School
Kalamazoo Christian School
Ladywood H.S. - Detroit
Lake Area Christian School
Lansing Catholic Central H.S.
Lansing Christian School
Leelanau School
Livingston Christian Schools
Loyola High School
Ludington Area Catholic S.
Lumen Christi Catholic School
Lutheran H.S.-Westland
Maria Montessori Center
Marian High School
Mercy High School
Midland Christian School
Moline Christian School
Monroe Catholic Es - St. John Campus
Monroe Catholic Es - St. Mary Campus
Monroe Catholic Es - St. Michael Campus
Montessori Children's Center
Montessori Children's Center of Allen Park, Inc.
Most Holy Trinity School – Detroit
Muskegon Catholic Cent. H.S.
New Morning School
Notre Dame Preparatory S.
Nouvel Catholic Central Ele.
Oakland Christian School
Our Lady of Consolation S.
Our Lady of Good Counsel S.
Our Lady of Refuge School
Our Lady of Sorrows School
Our Lady of the Lake School
Our Lady of the Lakes School
Our Lady of Victory School
Our Lady Queen of Martyrs School
Our Lady Star of the Sea S.
Our Savior Lutheran School – Hartland
Our Shepherd Lutheran S.
Peace Lutheran S. - Livonia
Peace Lutheran S. - Warren
Plymouth Christian Academy
Plymouth Christian H.S.
Regina High School
Roeper City and Country Ele. S
Sacred Heart Academy – Mount Pleasant
Sacred Heart School - Hudson
Sacred Heart School – Dearborn
Saginaw Chippewa Indian Tribe of Michigan
Saint John Paul II Cath. Acad.
San Juan Diego Academy
Shrine Catholic Grade School
Shrine Catholic H.S. & Acad
Southfield Christian School
SS. Peter and Paul School
St. Ann School
St. Anne Catholic Grade School
St. Anselm School
St. Augustine Catholic School
St. Brigid Catholic School
St. Catherine of Siena Acad.
St. Charles Borromeo Cath. S.
St. Charles Catholic School
St. Charles School

St. Clare of Montefalco School
St. Edith School
St. Edward on the Lake School
St. Elizabeth Catholic School
St. Fabian Catholic School
St. Frances Cabrini School
St. Francis of Assisi School
St. Francis Xavier School
St. Germaine Elementary S.
St. Hugo of the Hills School
St. Isaac Jogues Catholic S.
St. Joan of Arc School
St. John Lutheran S. - Fraser
St. John Luth. S. - Rochester
St. Johns Lutheran Amelith
St. Joseph Catholic S. - Erie
St. Joseph Cath. S. - Lake Orion
St. Joseph School - Pewamo
St. Joseph School - Howell
St. Joseph School - Trenton
St. Joseph's School
St. Lawrence School
St. Linus School
St. Luke Lutheran School
St. Martha School
St. Mary Catholic Central H.S.
St. Mary Catholic School – Sault Sainte Marie
St. Mary Catholic School – Rockwood
St. Mary School - Williamston
St. Mary School - Royal Oak
St. Mary S. - Mount Clemens
St. Mary School - Big Rapids
St. Mary School - Niles
St. Mary School - Wayne
St. Mary School - Saint Clair
St. Mary/McCormick Catholic Academy
St. Mary's Preparatory School
St. Matthew Lutheran School – Westland
St. Michael School - Remus
St. Michael S. - Grand Ledge
St. Michael School - Livonia
St. Patrick School - Ada
St. Patrick School - Carleton
St. Patrick School - White Lake
St. Patrick's School
St. Paul Lutheran School - Flint
St. Paul Lutheran S. - Bay City
St. Paul Lutheran S. - Saginaw
St. Paul Luth. S. - Millington
St. Paul Luth. S. - Northville
St. Paul School - Grosse Pointe Farms
St. Paul School - Owosso
St. Paul the Apostle School
St. Peter Luth. S. - Macomb
St. Pius Catholic School
St. Pius X School
St. Raphael School
St. Regis School
St. Rose of Lima Catholic S.
St. Sebastian School
St. Stephen School
St. Thecla Catholic School
St. Thomas the Apostle School - Ann Arbor
St. Valentine School
The Pathfinder School, Inc.
Traverse City Christian School
Trinitas Classical Association
Trinity Ev Luth. S. – Bay City
Trinity Lutheran Monitor
Trinity Luth. S. – Conklin
Trinity Lutheran School – Jackson
Trinity Lutheran School - Port Huron
University of Detroit Jesuit
University-Liggett School
Vineyard Academy
Waldorf School Assn. of MI
West Catholic High School
West Michigan Lutheran H.S.
Zion Evangelical Lutheran S.
Zion Lutheran S. - Bay City
Zion Lutheran S. - Harbor Beach

Figure 3. *Michigan Virtual* ISD, LEA, PSA District and Nonpublic Schools with Professional Learning Enrollments for the 2016-17 School Year

Endnotes

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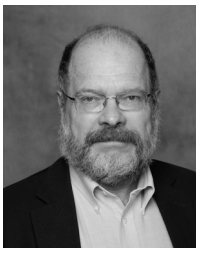

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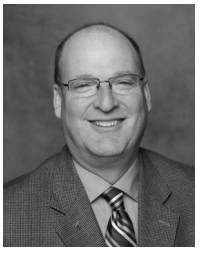

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