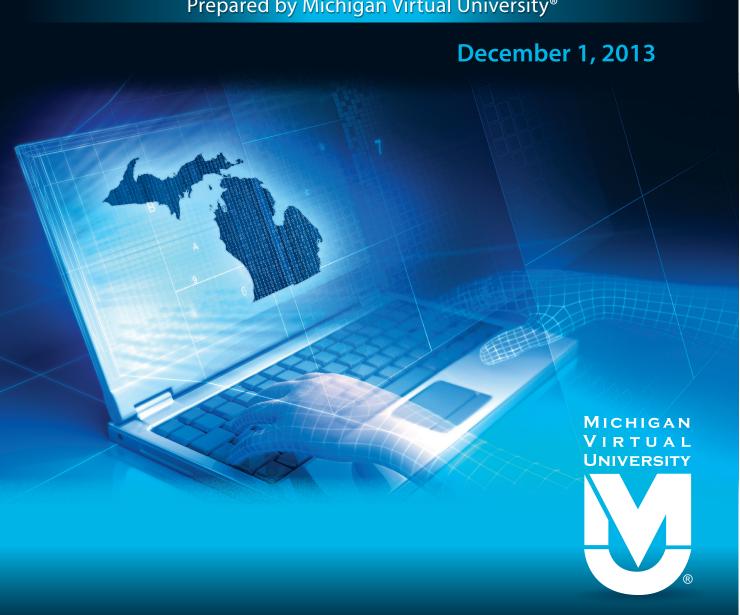
A REPORT TO THE

IEGISLATURE Prepared by Michigan Virtual University®



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A REPORT TO THE LEGISLATURE

Prepared by Michigan Virtual University

December 1, 2013

his report is submitted in compliance with Section 98 (7) of Public Act 201 of 2012, which requires the *Michigan Virtual University®* (*MVU®*) to provide not later than December 1, of each fiscal year, 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 of Education, specific information related to the *Michigan Virtual School®* (*MVS®*) for the preceding state fiscal year.

Background

The Michigan Virtual School, Michigan LearnPort, and Michigan Virtual Learning Research Institute are the core divisions of MVU, a 501(c)(3) nonprofit organization that works in partnership with K-12 schools to supplement and expand online learning opportunities. For the past 15 years, MVU has provided leadership to accelerate the adoption and use of online learning within Michigan. Working in partnership with hundreds of Michigan schools, MVU offers classes to students and professional development programs for educators through online web-based services. The MVS was created by Public Act 230 of 2000 to serve both traditional and nontraditional students and since its inception has recorded over 138,000 course registrations.

During the 2012-13 academic year, the *MVS* had 20,928 course registrations. The *MVS* offers a broad range of core academic courses aligned with state standards, college-level equivalent courses, remedial, enrichment and world language courses, and other innovative online experiences. Other *MVU* services include *Michigan LearnPort*, a statewide web-based professional development system that provides more than 1,800 online courses, videos, podcasts and training modules for Michigan educators and school employees, and *myDreamExplorer*® (*MDX*), an online

career exploration tool that includes a rich collection of planning resources that supported nearly 20,000 middle and high school students during 2012-13.

Funding for the *MVS* is provided through a combination of annual appropriations from the Legislature, reduced course fees charged to enrolling schools and private grant funds. The *MVS* does not grant course credit or award diplomas independently, but works in partnership with local and intermediate school districts which award credit or diplomas.

In 2011, the *MVS* was awarded a five-year accreditation renewal by AdvancED[®]. This comprehensive evaluation process recognizes the *MVS's* commitment to providing high quality online instructional services. As part of this continued quality improvement process, the *MVS* submitted an annual update for the 2012-13 academic year to AdvancED documenting its improvement efforts.

The *MVS* continues to be recognized as one of the leading and largest virtual schools in the U.S., and it works in collaboration with a national network of K-12 online learning organizations to promote the development of high quality programs and services for students and educators.

Expanding Educational Opportunities in Michigan

Since beginning its work in 1998, *MVU* has played three key roles to support and accelerate the growth and development of online learning in Michigan's K-12 schools. Figure 1 highlights these distinct, but complementary efforts.

Initially the organization served as a change agent at a time when most school leaders and parents were not familiar with online learning. Over the past decade, *MVU* has invested significant time and resources to create a general awareness of online learning for Michigan's students, parents and educators.

As school leaders developed an appreciation for the value and potential of online instruction, *MVU* became a service provider of high quality online courses and career planning tools. These efforts included helping schools develop local support systems to ensure student success through mentor training, technical support and helpdesk services. *MVU* also introduced innovative online professional development programs and services for all Michigan K-12 education personnel.

A third role for *MVU* has evolved as schools adopt locally-developed online learning programs, including blended models using classroom-based and online resources. For *MVU*, this capacity building role includes helping schools with teacher training, acquiring online content, online assessments, quality assurance, evaluation, and infrastructure and technical support services.

In 2012, the Governor and Michigan Legislature asked the *MVU* to establish a center for online learning research and innovation, and through this center, directed *MVU* to work on a variety of projects. The center, now formally known as the *Michigan Virtual Learning Research Institute*TM, is a natural extension of the work of *MVU*. The core strategies of the *Institute* include:

- Research Expand the K-12 online and blended learning knowledge base through high quality, high-impact research;
- Policy Inform local, state and national public

Figure 1
Key Roles for Michigan Virtual University



- education policy strategies that reinforce and support online and blended learning opportunities for the K-12 community;
- Innovation Experiment with new technologies and online learning models to foster expanded learning opportunities for K-12 students; and
- Networks Develop human and web-based applications and infrastructures for sharing information and implementing K-12 online and blended learning best practices.

MVU dedicates staff members to Institute projects as well as augments its capacity through a Fellows program drawing from state and national experts in K-12 online learning from K-12 schooling, higher education and private industry. These experts work alongside MVU staff to provide research, evaluation, and development expertise and support. To access the annual report that describes the work of the Institute in its first year of operation please visit http://media.mivu.org/institute/pdf/Annual_Report_2013.pdf.

Scope of the Report

The information provided in this report addresses the requirements that are listed in Section 98 (7) of P.A. 201 of 2012. These items include, for the period October 1, 2012 - September 30, 2013, the schools served by the *MVS*, online course titles available to Michigan schools, course enrollment, registration and completion rates by course, the overall completion rate percentage,

and an analysis of the results of a pilot study, and the identification of unmet needs that could be addressed by the *MVS*. The report also provides information on the results of a pay for performance pilot based on 1,002 online course enrollments.

Michigan Schools Served by the MVS

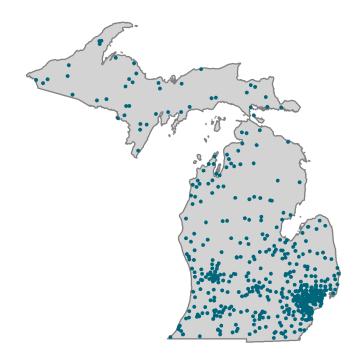
From October 1, 2012 - September 30, 2013, the MVS served students enrolled in 461 Michigan local education agencies (LEAs), public school academies (PSAs), intermediate school districts (ISDs) and nonpublic schools, including schools that have been identified by the MDE as not meeting adequate yearly progress (AYP). A complete list of the Michigan schools served during 2012-13 is included in Exhibit 1. These schools accounted for 17,744 MVS course registrations over the past year. In addition, the MVS had 3,072 student registrations from 1,766 Michigan home schools during 2012-13. School enrollments in MVS courses over the past year ranged from a single student enrollment to 748 student enrollments. The average number of enrollments per school during 2012-13 was 38.

Figure 2 provides a geographic representation of *MVS* course registrations for the public, nonpublic and home schools that enrolled students during 2012-13. During this period, schools and families in 78 of the state's 83 counties were supported with *MVS* online courses and programs.

Online Courses Available to Michigan Schools from the MVS

Exhibit 2 provides a listing of the online courses offered by the *MVS* to Michigan schools and parents during the period October 1, 2012 - September 30, 2013. These online courses are listed by the course titles that were included in the *MVS* course catalog for the corresponding fall, spring and summer semesters, as well as three trimesters during the fall and spring. These titles include courses in the content areas of English language arts, mathematics, science, social studies, world languages and other special interest or elective courses such as computer science, career planning and entrepreneurship courses. The list includes 246 possible courses, representing core academic courses specifically aligned with the Michigan Merit Curriculum

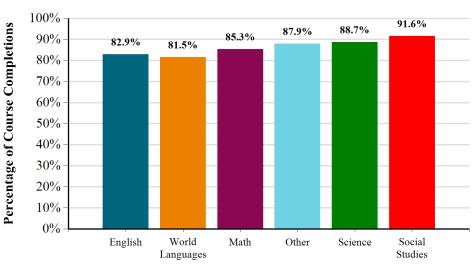
Figure 2
Michigan Enrollments in the *Michigan Virtual School* by City and Zip Code During the 2012-13 School Year



(MMC) and the Common Core, Advanced Placement® (AP®) courses, credit recovery courses and summer enrichment experiences for students. These online courses include those developed by *MVS* and courses and content licensed from nationally recognized providers. A majority of the *MVS* courses (75%) are offered at the high school level, but approximately 61 online courses are available for middle school students in grades 6-8.

The adoption of the MMC in 2006 prompted the MVS to initiate an intensive multi-year course review and revision process to ensure that the online courses support the new curriculum requirements and the corresponding high school content expectations (HSCEs). The MVS focused this course review and revision effort in the areas of mathematics, science, English language arts and social studies to assist schools in complying with the state's graduation requirements and to help meet the demand for courses and highly qualified instructors in curriculum content areas where teacher shortages have been predicted. These and other MVS online courses are under constant review to improve their instructional design and student success rates. The courses offered through the MVS are designed to assist Michigan students in meeting the state's innovative online learning graduation requirement.

Figure 3 2012-13 MVS Average Course Completion Rate by Content Area

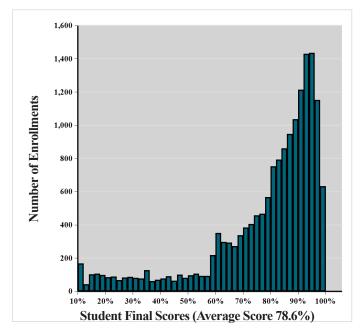


Course Content Areas

MVS Online Course Enrollments, Registrations and Completions by Course

The overall average completion rate for the *MVS* courses offered in the fall 2012, spring 2013 and summer 2013 semesters was 86.4%. This includes 16,434 Michigan student enrollments in semesterlength, instructor-led *MVS* courses and excludes students enrolled in *MVS* summer enrichment, ungraded pilot programs and non-instructor-led courses. The *MVS* course completion rate is calculated by dividing the number of enrollments that earned 60% or more of the final points by the number of enrollments that earned 10% or more

Figure 4
Frequency of 2012-13 MVS Students' Final Scores (Excludes Non-Attempted Enrollments)



of the final points. It is common practice in online learning to drop non-attempted enrollments – enrollments with less than 10% of the possible points – to correct for students who didn't login or who had little to no significant activity in their courses.

It is worth noting that the *MVS* completion rate has grown from 80.9% to 86.4% since the 2008-09 school year. This increase in student performance occurred at the same time as the number of enrollments included in the completion rate has increased over 4,200 enrollments compared to the 2008-09 school year.

Figure 3 provides a summary of the *MVS* course completion rates by curriculum content area. Course completion rates ranged from over 80% in English language arts and world languages, to over 85% in mathematics, science, social studies and other elective courses. As previously noted, the category titled "Other" includes elective courses such as Basic Software Applications, Career Planning, Digital Photography, Entrepreneur Business Management, and Music Appreciation. The 2012-13 *MVS* course completion rates by individual course title can be found in Exhibit 3.

Figure 4 represents the frequency of students' final scores for the 16,434 course enrollments used to calculate the completion rate for the 2012-13 academic year. During this timeframe, there were fall, spring and summer semesters, as well as three trimesters offered in the fall and spring. The histogram takes into account any student enrollment

earning a minimum of 10% of the possible points from the 206 instructor-led courses selected by schools and students from the *MVS* course catalog

during this period.

The MVS provides ongoing assistance to the local school mentors, counselors and administrators responsible for enrolling and supporting students in MVS courses. MVS course completion rates are increasing as a result of improved monitoring, additional student support services, and steps taken to streamline the process for formally dropping students from courses that they do not intend to complete or actively participate in. This process is an ongoing challenge because some students start slowly in their online courses and gain confidence in this new learning environment as the semester continues. Schools have made significant strides in developing the local capacity to support and encourage online learners and the MVS works with school personnel across the state to minimize the number of incomplete enrollments.

Figure 5 highlights the 10 MVS instructor-led core content area courses with the highest enrollments and their corresponding completion rates recorded during 2012-13. Enrollments in these courses represent approximately 20% of all MVS course enrollments included in the completion rate calculations.

The MVS also offered 29 instructor-led courses during 2012-13 with five or fewer enrollments recorded, including semester or trimester sections of middle school mathematics, English language arts, science and world languages, and upper-level Latin language courses. Michigan school administrators have consistently noted that the availability of a robust catalog of online courses is especially useful to them as many schools have been forced to eliminate low enrollment course options for students due to increasing instructional costs.

Each year the MVS serves a large number of students in credit recovery courses, as well as AP courses, advanced math or science courses or world language

Figure 5
Top Ten MVS Core Content Area Courses
by Enrollments

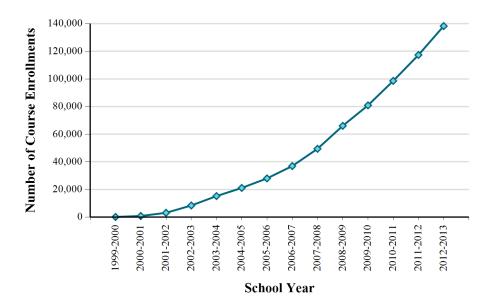
Course Title	Enrollment Totals	Comp Rate
Forensic Science - Intro	432	92.8%
American Sign Lang. 1(A)	389	87.1%
Psychology	377	92.8%
Health	324	88.0%
Spanish 1 (A)	313	70.9%
Economics	308	93.5%
Civics	291	89.0%
Spanish 1 (B)	268	75.7%
AP Psychology	268	94.4%
French 1 (A)	263	76.8%
	Total 3,233	Overall Rate 86.7%

courses that typically are not available through their local school. In meeting these unique needs, the *MVS* tends to serve students on both ends of the achievement spectrum. During the 2012-13 academic year, the *MVS* had enrollments in 34 instructor-led AP courses and recorded 1,452 enrollments with a completion rate of 92.5%. The number of AP enrollments represents about 9% of all course enrollments included in the completion rate during the reporting period.

Many schools in Michigan do not allow students to enroll in online courses if the same course is offered face-to-face locally. The exception to this trend tends to be for courses that students have failed in the traditional face-to-face environment. These and other factors such as scheduling conflicts contribute to the course selection, completion, and achievement across *MVS* courses.

Another element contributing to student success is the essential support role of local mentors who are responsible for assisting students as they access their online courses from a school setting. The *MVS* continues to offer its free mentor training to schools as they build capacity to support online learners in their communities

Figure 6 Cumulative Frequency of MVS Course Registrations Since 1999-2000



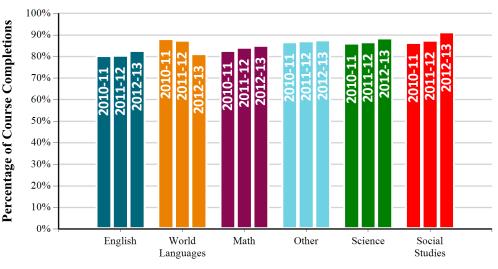
MVS Course Enrollments and Completion Rates Over Time

The growth of online learning continues to expand teaching and learning opportunities for Michigan's middle and high school students. The *MVU* has a strong record of working in partnership with the state's K-12 community to help schools and parents meet a variety of instructional needs for their students. In addition, the organization has developed the technical infrastructure and capacity to deliver high quality online courses and instructional materials through a cadre of highly qualified Michigan-certified instructors. A review of *MVS* course registrations and completion rates over multiple years provides evidence of this ongoing effort. As Figure 6 demonstrates, *MVS* course registrations have grown consistently and at an accelerating pace over

the past 14 years. During the 2012-13 academic year, the *MVS* surpassed 138,000 total course enrollments since its inception, marking a significant milestone in the history of the organization.

In addition to experiencing consistent growth in course enrollments, *MVS* has also demonstrated steady improvement in student performance in its online courses. As depicted in Figure 7, over the past three years the *MVS* has tended to increase or maintain its course completion rates within each of its six content areas. Developing strategies and outreach efforts to support improvements in the course completion rates by students is an ongoing strategic goal of *MVU*.

Figure 7 MVS Course Completion Rates from 2010-11 to 2012-13



Course Content Areas

Areas of Unmet Educational Needs Related to Online Learning

In 2013, the Michigan Legislature added language to the State School Aid Act under Section 21f that provided unprecedented choice at the course level for students and parents wanting online learning options. This legislation allows public school students in grades 5-12 to take up to two online courses listed in a district's local catalog or from those listed in *Michigan's Online Course Catalog* (http://micourses.org). In order to successfully implement the intentions of this legislation, the following areas should receive priority.

1. Raise Awareness of the Legislative Changes
Educating school personnel, parents and
students about what 21f means will be critical
in effectively implementing it. Despite its
passage in June of 2013, many school personnel,
parents and students remain unaware of the
new legislation, and those who are aware have
many questions about it. Organizations like the
Michigan Association for Secondary School
Principals (MASSP), the Michigan Department of
Education (MDE) and MVU have been working
to spread the word and to create resources for
those affected by 21f. Such efforts to provide
high-quality and timely information – especially

during the early implementation stage – will be

important to reduce confusion and increase fidelity

2. Assist Students, Parents and Schools in Choosing High-Quality Online Options

to the goals of the legislation.

As Michigan moves toward a public school system that provides greater choice, students, schools and parents will need help in identifying options that will be most effective in educating their students and children. School personnel will need training to help them evaluate and develop online learning options, familiarize themselves with the available options, and provide recommendations that best fit the student. Likewise, parents will need to become informed consumers and more involved with advocating for their children. Resources like the MVU Parent Guide to Online Learning (http://media.mivu.org/institute/pdf/parent guide 2013.pdf) should be helpful in providing direction toward those goals. Ultimately,

coordination and cooperation between parents and schools will be required to best leverage 21f in ways that maximize student learning.

3. Effectively Train Michigan Teachers to Teach and Mentor in Online Environments

In order for an online course to qualify under 21f, it must be taught by a Michigan certificated teacher. While this is an important step toward regulating quality, additional steps are necessary. Research demonstrates that effective online instructors must possess distinctly different knowledge, skills, and dispositions from that of face-to-face teachers. Online teachers fulfill many of the same roles as face-to-face teachers. but in addition, they must also fill roles unique to online teachers such as instructional designer and tech coordinator. Furthermore, online teachers must provide instruction, monitor student learning through formative and summative assessments, and support student learning all while separated both physically and temporally from their students. This poses unique contextual challeges not present in face-to-face classrooms. Unfortunately, few initial teacher preparation programs provide students with the curricular or student teaching experiences necessary to develop these proficiencies. Creating scalable professional development programs that train teachers to teach online in the K-12 environment will be important to improving the quality of online learning experiences for Michigan students.

Learning to teach online is not the only area where teachers and schools will need professional development. Research and experience demonstrate the importance of high-quality onsite mentors to monitor and support K-12 online students. Schools will need training in best practices for shaping their online learning mentor programs. Likewise, Michigan certificated educators will need opportunities to learn how best to monitor student progress and to develop strategies for successfully supporting and intervening to maximize student performance.

2012-13 Pilot Study

Pursuant to Section 98 (3) of Public Act 201 of 2012, MVS conducted and reported on a year-long pilot study of a new performance-based model of funding. The purpose of the pilot was to determine the merits of a payment system for online instructional programs based on pupil performance rather than solely on enrollment and attendance factors. In this pilot, 1,002 enrollments were randomly selected from 224 Michigan schools and among 149 course titles. Enrollments in the pilot yielded an 86% completion rate. The result of the pilot show that MVS could maintain a high completion rate while being funded through a performance-based model wherein successful completions (enrollments earning 60% or more of the total course points) were reimbursed by the state at 1/12 of the minimum per pupil foundation allowance and no payment (either upon enrollment or completion) was received for unsuccessful completions.

A full report on the pilot study is available online at http://media.mivu.org/mivhs/pdf/Pilot_Study_2013.pdf. This report includes information, such as:

- a list of the districts that were selected to be a part of the pilot;
- the number of successful online course completions;
- a list of the courses offered in the pilot study and the completion rates for each course;
- identification of opportunities; and
- barriers that must be addressed in order to apply online learning performance funding based on successful completions rather than enrollment and attendance for online learning offerings statewide.

Conclusion

Online learning continues to grow at a rapid pace and holds great promise as an instructional strategy to expand and personalize learning opportunities for students. Based on policy recommendations from Governor Snyder, the Michigan Legislature took action in 2013 to further expand student access to digital learning options for students. Beginning in January 2014, students enrolled in a public local district or public school academy in grades 5-12 are eligible to enroll in an online course. The new policies build on more than a decade of legislation and policy development in Michigan, including:

- 2000: Michigan Virtual School (P.A. 230 of 2000)
- 2004: Support for online professional development (P.A. 351 of 2004)
- 2006: Online learning experience (P.A. 123 &124 of 2006)
- 2008: Seat Time Waivers (MDE waiver)
- 2009: Two full-time cyber schools. (P.A. 205 of 2009)
- 2012: Lift cap on cyber schools (P.A. 129 of 2012)
- 2012: Expand authorizers of cyber schools (P.A. 129 of 2012)
- 2012: Michigan Virtual Learning Research Institute (P.A. 201 of 2013).
- 2013: Choice at the course level (PA 60 of 2013)

The transition of learning environments from traditional classroom models to any time, any place, any pace learning systems will require the transformation of both individual and organizational behavior. *MVU* stands ready and looks forward to working with the state's policy leaders and elected officials to further develop Michigan's online learning industry and to help position the state to assume a national leadership role in the knowledge economy.

Vision

To provide leadership by expanding, improving and innovating learning opportunities for K-12 students and educators.

Mission

To serve as a catalyst for change by providing quality Internet-based programs that strengthen teaching and learning for K-12 education.

Exhibit 1 2012-13 Michigan Schools Served

A.D. Johnston Jr/Sr High School Academy of Sacred Heart Achieve Charter Academy Addison Jr/Sr High School Adlai Stevenson High School Adrian High School Advanced Technology Academy AGBU Alex-Marie Manoogian School Akiva Hebrew Day School Akron-Fairgrove Jr/Sr High School Alanson Public School Alba School Alcona Community High School Algonac High School-St Clair RESA All Saints Central School Allendale High School Alma Senior High School Almont High School Alternative Education-Legacy Anchor Bay High School Arbor Preparatory High School Arenac Eastern Middle/High School Armada High School Asher Adult Education Athens High School-Troy Austin Catholic Academy Baldwin Senior High School Bark River-Harris Jr/Sr High School Bath High School Battle Creek Academy Bear Lake High School Belding High School Bellaire Middle/High School Benzie Central Sr. High School Berkley High School Berrien Springs Virtual Academy Bert Goens Learning Center Big Bay De Noc School Black River Public School Blissfield High School Bloomfield Hills Andover H.S. Bloomfield Hills Lahser H.S. Bradford Academy Breckenridge High School Brethren High School Bridgman High School Brighton High School

Brighton Virtual Academy

Bronson Jr/Sr High School

Buckley Community Schools

Byron Center Charter School

Bullock Creek High School

Buchanan High School

Burt Township School

Brimley Jr./Sr. High

Byron Center High School Caledonia High School Calumet High School Calvary Baptist Academy Calvin Christian High School Canton Charter Academy Carney-Nadeau School Carson City-Crystal High School Caseville High School Cass City High School Cass Technical High School Cedar Springs High School Cedarville High School Central High School-Forest Hills Central High School-Traverse City Central Lake Public School Central Middle School-Ada Centreville High School Charlotte Senior High School Charlton Heston Academy Charyl Stockwell Academy - High School Cheboygan Area High School Chesaning Union High School Chippewa Hills High School Chippewa Valley - WIA City Middle/High School Clare High School Clarkston High School Clintondale High School Coldwater High School Community High School-Ann Arbor **Compass Pointe** Concord Academy:Boyne Concord High School Constantine High School Coopersville High School Covered Bridge School Covert High School Croswell-Lexington High School Dansville High School Davis Junior High School Dearborn High School Decatur High School DeLaSalle Collegiate High School DeTour Arts and Technology Academy DeTour High School Detroit Catholic Central High School DeWitt High School Dexter High School Divine Child High School

SUPPLEMENTAL INFORMATION

Exhibit 1:

2012-13 Michigan Schools Served

Exhibit 2:

2012-13 Online Course Titles Offered by the MVS to Michigan Schools

Exhibit 3:

2012-13 MVS Summary of Courses, Enrollments and Completion Rates

> Dryden High School Early College Alliance East Grand Rapids High School East Lansing High School East Middle School-Farmington Hills Eastern High School-Forest Hills Eastern Middle School Eastern Washtenaw Multicultural Academy Eaton Rapids Senior High School Edison Public School Academy Edsel Ford High School Edwardsburg High School Eisenhower High School Elk Rapids High School Ellsworth Community School-Ellsworth Engadine Schools Eppler Junior High School Eton Academy Evart High School Everest Academy Everett High School **Ewen-Trout Creek Consolidated** School Excel Charter Academy Fairview High School Farmington High School Fennville Public High School Ferndale High School FlexTech High School Fordson High School Forest Park School Fowler High School Fowlerville High School Fr. Gabriel Richard High School Fr. Marquette Middle School Frank Jeannette Jr. High School Frankenmuth High School Frankfort High School Freeland Middle School/High School Fremont High School

Fulton High School

Dr. Joseph F. Pollack Academic

Center of Excellence

Dream Academy

Gabriel Richard Catholic High Ishpeming High School Manistee High School Island City Academy Manistique Middle and High School School Galesburg-Augusta High School Ithaca High School Maple City-Glen Lake Jr/Sr High Galesburg-Augusta Middle School J.W. Sexton High School School Garber High School JCC/LISD Academy: A Regional Maple Street Magnet School for the Gaylord High School/Voc. Bldg. Middle College Jefferson Middle School-Saint Clair Gladwin High School Maple Valley Jr/Sr High School Gobles High School Shores Marine City High School Godwin Heights Senior High School John Glenn High School-Westland Marlette Jr./Sr. High School Kalamazoo Christian High School Grandville High School Marquette Senior High School Grass Lake High School Kelloggsville High School Marshall High School Great Oaks Academy Kenowa Hills High School Martin High School Grosse Ile High School Kensington Woods High School Mason High School Grosse Pointe North High School Kent City High School Mattawan High School Grosse Pointe South High School Kingsford High School Mayville High School Gull Lake High School Kingsley Area High School Meads Mill Middle School Gull Lake Virtual School Kingston High School Mendon Middle/High School Menominee High School H.H. Dow High School Knapp Charter Academy Hamilton High School Ladywood High School--Detroit Meridian High School Hancock Central High School Laingsburg High School Merrill High School Hanover-Horton High School Lake City High School Michigan Center Jr/Sr High School Harbor Beach Community High Lake Linden-Hubbell High School Michigan Islamic Academy Lakeland High School Michigan School for the Deaf Harbor Springs High School Laker High School Michigan Works Harper Creek High School Lakeshore High School Midland Academy of Advanced and Creative Studies Harper Woods High School Lakeview High School-Battle Creek Harrison Community High School Lakeview High School-Saint Clair Midland High School Milford High School Harrison High School Shores Hartford High School Lakeview Middle School-Battle Mill Creek Middle School-Dexter Millington High School Hartland High School Creek Hartland Virtual Academy Lamphere High School Mona Shores High School L'Anse Creuse High School Monroe Virtual School Haslett High School Hemlock High School L'Anse Creuse High School - North Montabella Junior/Senior High Henry Ford Academy L'Anse Creuse Middle School -Mount Clemens High School Henry Ford Academy: School for Muir Middle School South Creative Studies (PSAD) Lansing Catholic Central High Mumford High School Henry Ford II High School School Munising High and Middle School Heritage Junior High School Lansing Christian School Muskegon Catholic Central High Hesperia High School Lapeer West Senior High School School Holland Christian High School Napoleon High School Larson Middle School Holland High School LaSalle High School Negaunee High School Lawton High School Holly High School New Buffalo Senior High School LCC - HSDCI New Haven High School Holt Lutheran Schools Holt Senior High School Lee M. Thurston High School New Life Christian Academy Holton High School Legacy Charter Academy Niles Community High School Honey Creek Community School Leland Public School Niles Senior High School Hopkins High School Lenawee Christian School North Adams High School Houghton Central High School Linden Grove Middle School North Branch High School Houghton Lake High School Litchfield High School North Central Area Jr/Sr High School Howell High School North Dickinson School Loy Norrix High School Huron High School-New Boston Ludington High School North Farmington High School Luther L. Wright High School Huron Valley Lutheran High School North Huron School Lutheran High School South Ida High School North Muskegon High School Imlay City High School Mackinac Island School North Road Elementary School Innocademy Malow Junior High School North Star Academy-Marquette Manchester High School Ionia High School Northern High School-Forest Hills

Northport Public School

Manistee Catholic Central Schools

Iron Mountain High School

Northview High School Northville High School Northwest High School Norway High School Notre Dame Preparatory School Novi High School O.E. Dunckel Middle School Oakland Christian School Oakland International Academy-Middle/High Oakridge High School Ogemaw Heights High School Olivet High School Onekama Middle/High School Ontonagon Area Jr/Sr High School Orchard View High School Otsego High School Ovid-Elsie High School Owosso High School Oxford High School Paw Paw High School Peck Jr./Sr. High School Pennfield Senior High School Perry High School Pewamo-Westphalia Jr. Sr. High School Phoenix Alternative High School-Powers Pickford High School Pinckney Community High School Pinconning High School Pioneer Tech High School Plainwell High School Plymouth Christian Academy Pontiac High School Port Huron High School-St Clair RESA Port Huron Northern High School-St Clair RESA Portage Central High School Portage Northern High School Potterville High School Powell Twp. Elementary School Quincy High School Reading High School Redford Union High School Reed City High School Renaissance High School-Clarkston Renaissance High School-Detroit Republic-Michigamme School Richmond Community High School River Rouge High School Riverview Community High School Rochester Adams High School Rochester High School Rockford High School Rogers City High School

Romeo High School Roscommon High School Royal Oak High School Rudyard High School Sacred Heart Academy Saginaw Arts and Sciences Academy Saint Germaine Catholic School Saline High School Sand Creek High School Sandusky High School Saranac High School Saugatuck High School Sault Area High School Sawdon High School Schoolcraft High School Shelby High School Shepherd High School Shrine High School South Arbor Charter Academy South Canton Scholars Charter Academy South Christian High School South Haven High School South Lyon East High School South Lyon High School Southfield Christian School Southgate Anderson High School Sparta Senior High School Spring Lake High School St. Clair High School St. Philip Catholic Central High School St. Regis School St. Thomas School Standish-Sterling Central High School Stevenson High School Stockbridge High School Stoney Creek High School STP - Calvary Christian STP - Faithway Christian STP - Livingston Christian STP - St. Catherine STP - Washtenaw Christian Sturgis High School Superior Central School Suttons Bay Senior High School Swan Valley High School Swartz Creek Global Learning Hub Swartz Creek High School TA Wilson School Tecumseh High School The Early College @ Lansing Community College The Manor Thornapple Kellogg High School

Three Rivers High School Tinkham Virtual Shared Time Program Traverse City College Preparatory Academy Traverse City East Middle School Traverse City Shared-Time Schools Tri County Senior High School Trinity Lutheran School-Paw Paw Tri-Township School Tri-Unity Christian High School Troy Adult Education Ubly Community High School Union City High School Unionville-Sebewaing High School Unity Christian High School University of Detroit Jesuit Utica Academy for International Studies Utica High School Van Hoosen Middle School Vandercook Lake High School Vassar Senior High School Veritas Christi Catholic High School Vestaburg Community High School Vicksburg High School Wakefield-Marenisco School Walker Charter Academy Walkerville High School Walled Lake Central High School Walled Lake Northern High School Walled Lake Western High School Warren Woods Tower High School Watersmeet Township School Watervliet Senior High School Wayland High School Wayne Memorial High School Webberville High School Wellspring Preparatory High School West Iron County High School West Michigan Aviation Academy West Michigan Lutheran High School West Ottawa High School Campus West Senior High Western High School White Cloud High School Whitehall Senior High School Whitmore Lake High School Williamston High School Wolverine Middle/High School Wyoming High School Yale High School-St Clair RESA Zeeland East High School Zeeland West High School

Three Lakes Academy

Exhibit 2 2012-13 Online Course Titles Offered by the MVS to Michigan Schools

Exhibit 2 2012-13 Offline Course Titles Offered by the MV3 to Michigan Schools			
Math Courses	English Courses	Science Courses	
Math Tracks Mathematics 6 (A) Mathematics 6 (B) Mathematics 6 (B) - Advanced Mathematics 7 (A) Mathematics 7 (A) Mathematics 7 (B) Mathematics 7 (B) - Advanced Mathematics 8 (A) Mathematics 8 (B) Mathematics 8 (B) Mathematics 8 (B) Mathematics 8 (B) - Advanced Mathematics 8 (B) - Advanced Mathematics 8 (B) - Advanced Mathematics 8 (B) - Numbers Mathematics 8 (B) Mathematics 9 (B) Mathematics 1 (B) Mathematics 1 (B) Mathematics 9 (B) Mathematics	English 6 (A) English 6 (B) English 6 (B) - Advanced English 7 (A) English 7 (B) English 7 (B) - Advanced English 7 (B) - Advanced English Foundations 1 (A) English Foundations 1 (B) English 8 (A) English 8 (B) English 8 (B) - Advanced English 9 (A) English 9 (B) English 10 (A) English 10 (B) English 11 (B) English 12 (A) English 12 (A) English 12 (B) Composition - Beginning Composition - Advanced American Film Survey Directors of the Golden Age Journalism Reading Writing Skills and Strategies World Literature AP English Lang. & Comp. (A) AP English Lit. & Comp. (B) AP English Lit. & Comp. (B)	Science Tracks Science Foundations (A) Science 6 (A) Science 6 (B) Science 7 (A) Science 7 (B) Science 8 (A) Science 8 (B) Physical Science (A) Physical Science (B) Earth Science (B) Earth Science (B) Astronomy Human Space Exploration Oceans & Their Ecosystems Oceanography (A) Oceanography (B) Environmental Science (A) Environmental Science (B) Forensic Science - Introduction Forensic Science - Advanced Health Biology (A) Biology (B) Bioethics Anatomy & Physiology (A) Anatomy & Physiology (B) Chemistry (A) Chemistry (B) Physics (A) Physics (B) AP Environmental Science (A) AP Environmental Science (B) AP Biology (B) AP Chemistry (B) AP Chemistry (B) AP Chemistry (B) AP Physics B (B) AP Physics C - Mechanics (A) AP Physics C - Mechanics (B)	

AP Calculus AB (B)

AP Calculus BC (A)
AP Calculus BC (B)
AP Statistics (A)
AP Statistics (B)

Social Studies Courses

World Cultures 6 (A)

World Cultures 6 (B)

World Cultures 6 (A) - Advanced

World Cultures 6 (B) - Advanced

World Geography 7 (A)

World Geography 7 (B)

World Geography 7 (A) - Adv.

World Geography 7 (B) - Adv.

U.S. History 8 (A)

U.S. History 8 (B)

Civics

U.S. Government

Economics

U.S. & Global Economics

Legal Issues

Psychology

Psychology (A)

Psychology (B)

Sociology

Global Issues & Perspectives

Geography

U.S. History & Geography (A)

U.S. History & Geography (B)

U.S. History (A)

U.S. History (B)

World History (A)

World History (B)

Native American History

Multicultural Studies

AP Macroeconomics

AP Microeconomics

AP U.S. Government & Politics

AP Psychology

AP U.S. History (A)

AP U.S. History (B)

World Language Courses

French 1 (A) and Spanish 1 (A)

French 1 (A) (6-8)

French 1 (B) (6-8)

French 2 (A) (6-8)

French 2 (B) (6-8)

German 1 (A) (6-8)

German 1 (B) (6-8)

German 2 (A) (6-8)

German 2 (B) (6-8)

Spanish 1 (A) (6-8)

Spanish 1 (B) (6-8)

Spanish 2 (A) (6-8)

Spanish 2 (B) (6-8)

American Sign Language 1 (A)

American Sign Language 1 (B)

Arabic 1 (A)

Chinese 1 (A)

Chinese 1 (B)

Chinese 2 (A)

Chinese 2 (B)

Chinese 3 (A)

Chinese 3 (B)

Chinese 4 (A)

Chinese 4 (B)

French 1 (A)

French 1 (B)

French 2 (A)

French 2 (B)

French 3 (A)

French 3 (B)

French 4 (A)

French 4 (B)

AP French (A)

AP French (B)

German 1 (A)

German 1 (B)

German 2 (A)

German 2 (B) German 3 (A)

German 3 (B)

German 4 (A) German 4 (B)

Japanese 1 (A)

Japanese 1 (B)

Japanese 2 (A)

Japanese 2 (B)

Latin 1 (A)

Latin 1 (B)

Latin 2 (A)

Latin 2 (B)

Latin 3 (A)

World Language (Cont.)

Latin 3 (B)

Spanish 1 (A)

Spanish 1 (B)

Spanish 2 (A)

Spanish 2 (B)

Spanish 3 (A)

Spanish 3 (B)

AP Spanish (A)

AP Spanish (B)

Other Elective Courses

Basic Software App. (6-8)

Art Appreciation

In Search of Cyrano

Music Appreciation (A)

Music Appreciation (B)

Personal Fitness

Physical Education

Study Skills

Employability Skills

Careers - Find Your Future

Career Planning

Medical Terminology

Business Ethics

Entrepreneur Bus. Management

Entrepreneur Business Planning

Basic Software Applications

Microsoft Office 2007

Digital Photography

C++ Programming (A)

Java Programming

Visual Basic.Net Programming

Web Design Basics HTML

Game Design

Flash Animation

AP Art History (A)

AP Art History (B)

AP Computer Science A (A)

AP Computer Science A (B)

Exhibit 3 2012-13 MVS Summary of Courses, Enrollments and Completion Rates

Math Course Titles	Total N	Comp Rate
Mathematics 6 (A)	4	50.0%
Mathematics 6 (B)	1	100.0%
Mathematics 6 (A) - Advanced	1	100.0%
Mathematics 7 (A)	4	50.0%
Mathematics 7 (B)	4	75.0%
Mathematics 7 (A) - Advanced	3	66.7%
Mathematics 8 (A)	5	60.0%
Mathematics 8 (B)	3	66.7%
Basic Math 1 (A)	13	92.3%
Basic Math 2 (A)	6	83.3%
Basic Math 2 (B)	1	0.0%
Pre-Algebra (A)	44	79.5%
Pre-Algebra (B)	22	81.8%
Algebra 1 (A)	158	77.8%
Algebra 1 (B)	179	77.1%
Algebra 2 (A)	195	70.8%
Algebra 2 (B)	177	84.7%
Geometry (A)	206	83.5%
Geometry (B)	197	84.8%
Personal Finance (A)	258	86.4%
Personal Finance (B)	248	92.7%
Mathematics of Baseball	192	95.8%
Trigonometry	53	90.6%
Pre-Calculus (A)	84	91.7%
Pre-Calculus (B)	60	90.0%
Calculus (A)	36	75.0%
Calculus (B)	8	50.0%
Probability and Statistics (A)	80	86.3%
Probability and Statistics (B)	17	64.7%
AP Calculus AB (A)	33	90.9%
AP Calculus AB (B)	21	100.0%
AP Calculus BC (A)	37	94.6%
AP Calculus BC (B)	33	90.9%
AP Statistics (A)	82	95.1%
AP Statistics (B)	68	95.6%

ELA Course Titles	Total N	Comp Rate
English 6 (A)	2	0.0%
English 6 (A) - Advanced	2	0.0%
English 7 (A)	6	66.7%
English 7 (B)	4	75.0%
English 7 (A) - Advanced	2	100.0%
English Foundations 1 (A)	5	60.0%
English 8 (A)	10	80.0%
English 8 (B)	13	69.2%
English 8 (A) - Advanced	1	100.0%
English 8 (B) - Advanced	2	100.0%
English 9 (A)	109	73.4%
English 9 (B)	104	73.1%
English 10 (A)	107	74.8%
English 10 (B)	105	75.2%
English 11 (A)	123	73.2%
English 11 (B)	100	87.0%
English 12 (A)	108	85.2%
English 12 (B)	88	85.2%
Composition - Beginning	43	89.8%
Composition - Advanced	24	95.8%
American Film Survey	177	89.3%
Directors of the Golden Age	52	96.2%
Journalism	63	93.7%
Reading	25	92.0%
World Literature	48	91.7%
AP English Lang. & Comp. (A)	28	89.3%
AP English Lang. & Comp. (B)	24	100.0%
AP English Lit. & Comp. (A)	31	80.6%
AP English Lit. & Comp. (B)	22	90.9%

Science Course Titles	Total N	Comp Rate
Science Foundations (A)	4	50.0%
Science 6 (A)	1	100.0%
Science 7 (A)	7	42.9%
Science 7 (B)	3	66.7%
Science 8 (A)	10	90.0%
Science 8 (B)	12	75.0%
Physical Science (A)	44	81.8%
Physical Science (B)	34	85.3%
Earth Science (A)	74	90.5%
Earth Science (B)	46	93.5%
Astronomy	218	89.9%
Human Space Exploration	56	91.1%
Oceans & Their Ecosystems	68	83.8%
Oceanography (A)	181	93.9%
Oceanography (B)	50	94.0%
Environmental Science (A)	46	89.1%
Environmental Science (B)	7	100.0%
Forensic Science - Intro.	432	92.8%
Forensic Science - Advanced	77	90.9%
Health	324	88.0%
Biology (A)	106	81.1%
Biology (B)	109	86.2%
Bioethics	82	91.5%
Anatomy & Physiology (A)	189	87.8%
Anatomy & Physiology (B)	85	96.5%
Chemistry (A)	114	76.3%
Chemistry (B)	89	83.1%
Physics (A)	63	76.2%
Physics (B)	47	89.4%
AP Environmental Science (A)	28	96.4%
AP Environmental Science (B)	24	91.7%
AP Biology (A)	49	87.8%
AP Biology (B)	38	81.6%
AP Chemistry (A)	14	78.6%
AP Chemistry (B)	4	100.0%
AP Physics B (A)	47	91.5%
AP Physics B (B)	37	97.3%
AP Physics C - Mechanics (A)	27	96.3%
AP Physics C - Mechanics (B)	30	93.3%

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Social Studies Course Titles	Total N	Comp Rate
World Cultures 6 (B)	1	100.0%
World Geography 7 (A)	10	70.0%
World Geography 7 (B)	3	100.0%
U.S. History 8 (A)	11	100.0%
U.S. History 8 (B)	13	84.6%
Civics	291	89.0%
U.S. Government	82	95.1%
Economics	308	93.5%
Legal Issues	177	83.6%
Psychology	377	92.8%
Sociology	220	90.5%
Global Issues & Perspectives	22	81.8%
U.S. History & Geography (A)	1	0.0%
U.S. History (A)	119	84.0%
U.S. History (B)	104	89.4%
World History (A)	202	92.1%
World History (B)	234	94.0%
Native American History	110	98.2%
AP Macroeconomics	93	94.6%
AP Microeconomics	86	95.3%
AP Psychology	268	94.4%
AP U.S. History (A)	34	94.1%
AP U.S. History (B)	26	92.3%
AP U.S. Government & Politics	52	86.5%

World Language Course Titles	Total N	Comp Rate
French 1 (A) and Span 1 (A)	1	100.0%
French 1 (A) (6-8)	43	34.9%
French 1 (B) (6-8)	11	90.9%
German 1 (A) (6-8)	11	27.3%
German 1 (B) (6-8)	3	100.0%
Spanish 1 (A) (6-8)	26	69.2%
Spanish 1 (B) (6-8)	22	95.5%
Chinese 2 (A)	20	70.0%
Chinese 2 (B)	8	87.5%
Chinese 3 (A)	13	100.0%
Chinese 3 (B)	15	80.0%
American Sign Lang. 1 (A)	389	87.1%
American Sign Lang. 1 (B)	150	97.3%
Chinese 1 (A)	63	84.1%
Chinese 1 (B)	42	88.1%
Chinese 2 (A)	27	85.2%
Chinese 2 (B)	19	100.0%
Chinese 3 (A)	9	66.7%
Chinese 3 (B)	7	71.4%
Chinese 4 (A)	6	100.0%
Chinese 4 (B)	6	83.3%
French 1 (A)	263	76.8%
French 1 (B)	155	77.4%
French 2 (A)	92	87.0%
French 2 (B)	81	92.6%
French 3 (A)	48	89.6%
French 3 (B)	30	80.0%
French 4 (A)	22	100.0%
French 4 (B)	14	100.0%
AP French (A)	12	83.3%
AP French (B)	7	100.0%
German 1 (A)	230	77.0%
German 1 (B)	111	81.1%
German 2 (A)	67	82.1%
German 2 (B)	43	83.7%
German 3 (A)	18	77.8%
German 3 (B)	10	90.0%
German 4 (A)	10	70.0%
German 4 (B)	7	71.4%
Japanese 1 (A)	152	73.7%
Japanese 1 (B)	76	77.6%
Japanese 2 (A)	31	90.3%
Japanese 2 (B)	24	100.0%
Latin 1 (A)	144	86.1%
Latin 1 (B)	82	91.5%
Latin 2 (A)	30	96.7%
Latin 2 (B)	22	100.0%
Latin 3 (A)	5	100.0%
	3	100.00/
Latin 3 (B)		100.0%

World Languages (Cont.)	Total N	Comp Rate
Spanish 1 (B)	268	75.7%%
Spanish 2 (A)	114	86.0%
Spanish 2 (B)	92	92.4%
Spanish 3 (A)	77	66.2%
Spanish 3 (B)	31	80.6%
AP Spanish (A)	37	86.5%
AP Spanish (B)	25	84.0%

Other Elective Course Titles	Total N	Comp Rate
Basic Software Applications (6-8)	5	60.0%
Art Appreciation	87	85.1%
In Search of Cyrano	5	80.0%
Music Appreciation (A)	167	94.0%
Music Appreciation (B)	37	94.6%
Personal Fitness	149	89.3%
Study Skills	296	81.1%
Employability Skills	141	95.0%
Careers - Find Your Future	134	83.6%
Career Planning	203	86.2%
Medical Terminology	331	87.9%
Business Ethics	267	93.6%
Entrepreneur Busin. Management	303	95.0%
Entrepreneur Business Planning	163	77.3%
Basic Software Applications	10	90.0%
Microsoft Office 2007	20	90.0%
Digital Photography	209	88.5%
Java Programming	105	73.3%
Visual Basic.Net Programming	71	88.7%
Web Design Basics HTML	122	82.8%
Game Design	167	87.4%
Flash Animation	45	93.3%
AP Art History (A)	20	100.0%
AP Art History (B)	16	100.0%
AP Computer Science A (A)	59	86.4%
AP Computer Science A (B)	40	95.0%



In 2012, the Governor and Michigan Legislature passed legislation requiring the *Michigan Virtual University®* (*MVU®*) to establish a center for online learning research and innovation, and through this center, directed *MVU* to work on a variety of projects. The center, now formally known as the *Michigan Virtual Learning Research Institute*TM, is a natural extension of the work of *MVU*. A report providing an overview of activities conducted by the *Institute* to address legislatively-designated projects for 2012-13 is available for free download at:

http://media.mivu.org/institute/pdf/Annual_Report_2013.pdf

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