MICHIGAN'S K-12 VIRTUAL LEARNING
EFFECTIVENESS REPORT
2018-19

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MICHIGAN VIRTUAL LEARNING®
RESEARCH INSTITUTE

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About Michigan Virtual Learning Research Institute

In 2012, the Governor and Michigan Legislature passed legislation requiring *Michigan Virtual*™, formally *Michigan Virtual University*®, to establish a center for online learning research and innovation. Known as *Michigan Virtual Learning Research Institute*® (*MVLRI*®), this center is a natural extension of the work of *Michigan Virtual*. Established in 1998, *Michigan Virtual'*s mission is to advance K-12 digital learning and teaching through research, practice, and partnerships. Toward that end, the core strategies of *MVLRI* are:

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

Michigan Virtual dedicates a small number of staff members to *MVLRI* 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 *Michigan Virtual* staff to provide research, evaluation, and development expertise and support.

Disclaimer

This research result used data collected and maintained by the Michigan Department of Education (MDE) and/or Michigan's Center for Educational Performance and Information (CEPI). Results, information, and opinions solely represent the analysis, information and opinions of the author(s) and are not endorsed by, nor reflect the views or positions of, grantors, MDE and CEPI, or any employee thereof.

Disclosure

Please note that *Michigan Virtual* is the parent organization of both the *Michigan Virtual School*® and *MVLRI*.

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Executive Summary

Based on pupil completion and performance data reported by public schools to MDE or CEPI, this report highlights 2018-19 enrollment totals, completion rates, and the overall impact of virtual courses on K-12 pupils. Detailed findings are presented in sections on schools, courses, and students, as well as over 50 data tables at the end of the report.

About 8% of all K-12 students in the state—over 120,000 students—took virtual courses in 2018-19. These students generated almost 640,000 virtual course enrollments and were present in two-thirds of Michigan public school districts. Schools with part-time virtual learners were responsible for the majority of virtual enrollments. About four out of five virtual enrollments came from high school students, and the most highly enrolled in virtual courses were those required for high school graduation. Two-thirds of the virtual enrollments were from students who were in poverty. The overall pass rate for virtual courses (55%) remained the same as the past two years; however, there remains sizable variation in student success.
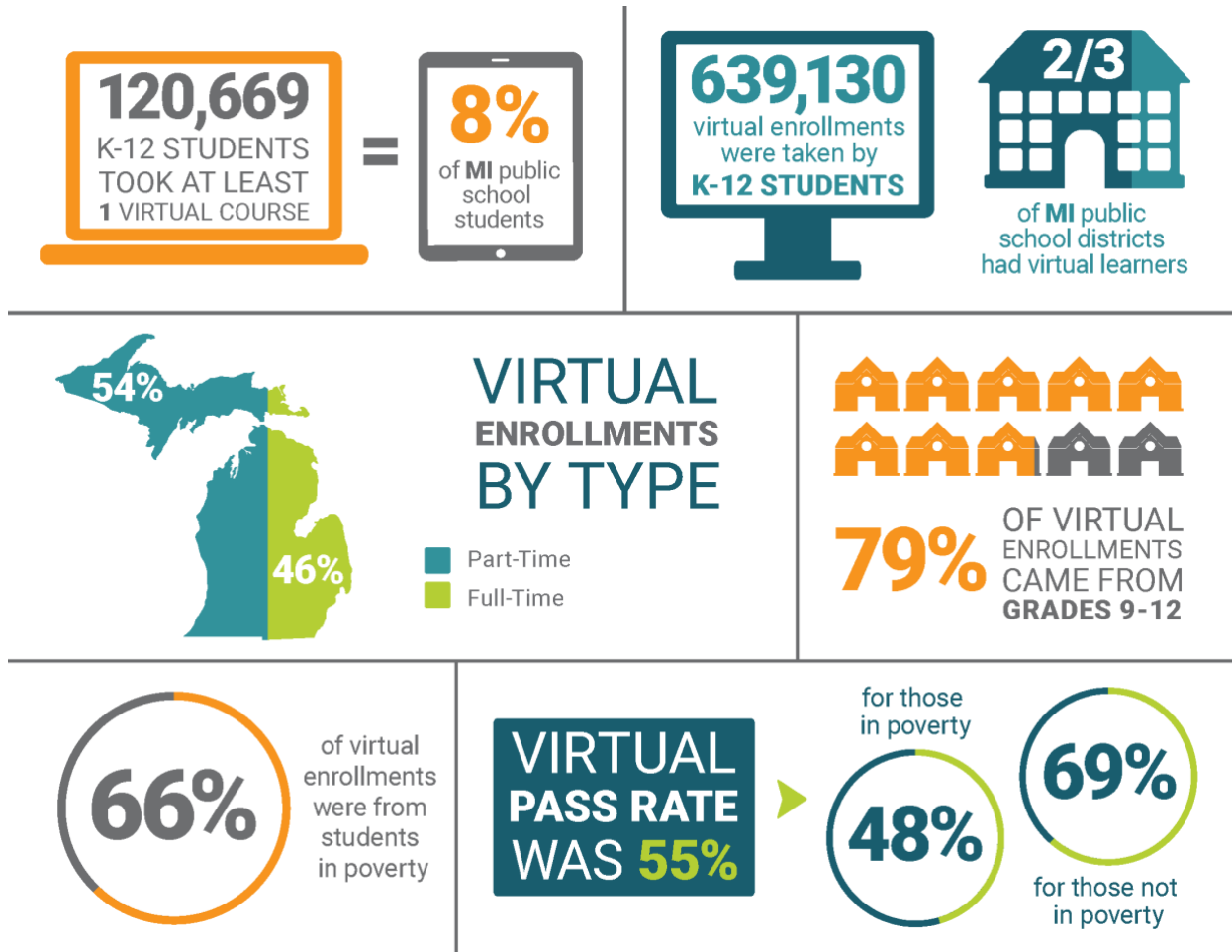

120,669 K-12 STUDENTS TOOK AT LEAST 1 VIRTUAL COURSE **=** **8%** of **MI** public school students

639,130 virtual enrollments were taken by **K-12 STUDENTS**

2/3 of **MI** public school districts had virtual learners

54% / 46% **VIRTUAL ENROLLMENTS BY TYPE** — Part-Time / Full-Time

79% OF VIRTUAL ENROLLMENTS CAME FROM **GRADES 9-12**

66% of virtual enrollments were from students in poverty

VIRTUAL PASS RATE WAS 55% ▸ **48%** for those in poverty **69%** for those not in poverty

Figure 1. *Infographic Summarizing Key Findings*

Introduction

This report presents analysis of information on virtual learners reported by schools to the state and shares findings in a highly consumable way to aid the evaluation of virtual learning programs. This year's report is the seventh edition of this annual publication. Past reports are available through the *Michigan Virtual* website[1].

The report is organized into several sections. The first section looks at schools as the unit of analysis. The next section focuses on the virtual courses taken. The third section focuses on students. The fourth section captures performance on statewide assessments. There is also a brief section containing maps of virtual use. Each section is meant to capture the essential findings without being overly data intensive; however, data tables have been included in the appendices to provide those interested with more in-depth information. Information about the report's methodology is captured in Appendix A. Please note that in some tables and figures, the percentage data may not sum to 100% due to rounding.

Schools

> **Fast Facts**
> - 608 school districts reported at least one virtual enrollment. This represents two-thirds of Michigan school districts.
> - Over half of the 1,225 schools with virtual enrollments had 100 or more virtual enrollments.
> - 75% of schools with virtual enrollments had a general education school emphasis; 24% had an alternative education emphasis.
> - 88% of schools with virtual learning were LEA schools.
> - LEA schools accounted for 58% of the virtual enrollments; PSA schools generated 39% of the virtual enrollments.
> - 54% of virtual enrollments came from schools with part-time virtual learning options.
> - LEA schools had the most full-time virtual schools (59).
> - 98% of virtual enrollments came from schools with 100 or more virtual enrollments.
> - About 79% of virtual enrollments came from students in grades 9-12.
> - 31% of virtual enrollments came from suburban schools, the most of any locale.
> - Schools with a general education emphasis had a 65% virtual pass rate, outperforming those with an alternative education emphasis, which had a pass rate of 42%.
> - 26% of schools had a school-wide virtual pass rate of 90% to 100%.

[1] *Past Effectiveness Reports* are available for free at https://michiganvirtual.org/effectiveness-reports/

Number of Districts

For the 2018-19 school year, 608 districts reported having at least one virtual enrollment. This represented over two-thirds of the 905 Michigan public school districts for the year. See the following MI School Data Report for a breakdown of the district count - *http://bit.ly/38eTzAI*. Within those districts, 1,225 schools reported virtual enrollments, an increase of 67 schools from the prior year.

By Grade Level

Across the 1,225 schools, 639,130 virtual enrollments were taken. Students in 12th grade enrolled in the most virtual courses (178,058), representing approximately 28% of all virtual enrollments. The overall pass rate for virtual enrollments was 55%, the same as the prior two years. See *Table F1* for a more specific breakdown of all the completion statuses. This ranged from a high of 74% in kindergarten to a low of 41% in 9th grade. See *Table B1* for more information. Consistent with findings from previous years, virtual learners passed their virtual courses at a lower rate (55%) than they passed their non-virtual courses (76%). This gap is smaller than the past year due to the non-virtual pass rate for students dropping from 79% to 76%. See *Table B2*.

By School-Level Virtual Pass Rate

Of the 1,225 schools with virtual enrollments, 316 or 26% had school-level virtual pass rates of 90% to 100%. A little more than half of schools had virtual pass rates of 70% or better. See *Table B3*.

By Entity Type

LEA schools (58%) and PSA schools (39%) accounted for almost all the virtual enrollments. Virtual enrollments came from 1,072 (88%) LEA schools while only 110 (9%) of the schools were PSAs. See *Table B4*. LEA schools had a higher pass rate (58%) than PSA schools (49%). See *Table B5* or, for a more in-depth look at the completion statuses, see *Table F2*.

By Full-Time Virtual Schools

The number of full-time virtual schools was up from 70 to 79 in 2018-19. Fifty-nine of the 79 full-time virtual schools (75%) were LEA schools. PSA schools accounted for 20% of the full-time virtual schools. See *Table B6*. Close to 40% of students attending full-time virtual schools did so at LEA schools with about 60% attending a PSA school. The pass rates between these two entity types were fairly close with full-time virtual LEA schools at 51% and PSA schools at 49%. See *Table B7* and *Table F3*. In total, 46% of virtual enrollments came from cyber or full-time virtual schools – three percent higher than last year.

By Part-Time Virtual Schools

About 94% of the schools offering virtual learning do so to supplement their face-to-face course offerings. These 1,146 schools, referred to in this report as part-time virtual schools, were predominantly LEA schools (88%). See *Table B8*. Eighty-six percent of the part-time virtual students were enrolled through LEA schools and 10% through PSA schools. LEA schools accounted for over 275,000 virtual enrollments or 80% of the part-time enrollments. In total, part-time virtual enrollments accounted for 54% of all the virtual enrollments for the year. LEA schools had a pass rate of 61% whereas PSA schools had a pass rate of 50%. Overall, the pass rates for

the part-time virtual schools (60%) was over 10 percentage points higher than the rate for the full-time virtual schools (49%). See *Table B9* and *Table F4*.

By School Emphasis

Three out of four schools with virtual learning were designated as General Education and produced 357,347 (56%) of the virtual enrollments. Schools with Alternative Education as their emphasis accounted for 277,894 (43%) of the virtual enrollments. See *Table B10*. There was a considerable difference in virtual pass rates between these two types of schools. General Education schools had a 65% virtual pass rate, whereas Alternative Education schools had a 42% virtual pass rate (see *Table B11* and *Table F5*), though this varied by entity type. LEA schools, for instance, had a 74% virtual pass rate for General Education schools and a 44% virtual pass rate for Alternative Education schools. See *Table B12*.

By Number of Virtual Enrollments

Over half of schools with virtual enrollments (55%) had 100 or more virtual enrollments. These schools were responsible for 98% of the virtual enrollments. As has been observed in previous years, schools with less than 10 virtual enrollments were the next highest percentage of schools with 18%; however, they only generated .1% of the virtual enrollments. See *Table B13*.

Another trend that continued was that, in general, schools with fewer virtual enrollments per student performed better. Consider, for instance, that 36% of schools with an average of one to two virtual enrollments per virtual learner had a virtual pass rate of 90% to 100%, whereas only 15% of schools with an average of four or more virtual courses per virtual learner had a 90% to 100% pass rate. See *Table B14*.

By Locale

Rural schools represented about 34% of schools with virtual enrollments. Suburban settings provided the second most schools with 31%. Suburban schools, however, tallied the largest percentage of the virtual enrollments at 31%. All four locales had more than 100,000 virtual enrollments. See *Table B15*. In each of the four locales, schools with 100 or more virtual enrollments accounted for the largest percentage of schools. Similarly, schools with less than 25 virtual enrollments was the second most likely scenario. See *Table B16*. Virtual pass rates varied by locale with suburban schools having the highest virtual pass rate at 60% and those not specified having the lowest at 50%. Both city schools (16%) and those not specified (27%) had the highest percentage of schools with pass rates less than 20%. See *Tables B17* and *B18*.

Courses

Fast Facts

- 639,130 virtual enrollments were taken by Michigan K-12 students; the overall pass rate for virtual enrollments was 55%.
- Virtual enrollments were spread across 931 different course titles.
- 66% of virtual enrollments occurred in the core subject areas of English Language and Literature, Mathematics, Life and Physical Sciences, and Social Sciences and History.
- The course titles with the highest enrollments for each core subject were:
    - English Language and Literature: English 9, English 10, English 11, and English 12
    - Mathematics: Geometry, Algebra II, Algebra I, and Consumer Math
    - Life and Physical Sciences: Biology, Chemistry, Earth Science, and Physical Science
    - Social Sciences and History: U.S. History—Comprehensive, Economics, World History and Geography, World History—Overview
- The virtual pass rates for each core subject were:
    - English Language and Literature: 51%
    - Mathematics: 49%
    - Life and Physical Sciences: 51%
    - Social Sciences and History: 55%
- 29 different Advanced Placement (AP) courses were taken virtually.
- The percentage of enrollments was fairly consistent by subject area across rural, town, suburban, and city schools.
- Online courses (defined as including a teacher in the virtual environment) produced 82% of the virtual enrollments. Digital learning (without a teacher in the virtual environment) and blended learning (some virtual, some face-to face instruction) each accounted for about 9% and 8% of the virtual enrollments, respectively.

Number of Courses

The 639,130 virtual enrollments came from 931 different course titles, as determined by unique SCED codes.

Courses by Subject Area

English Language and Literature was the subject area with the highest virtual enrollment with 119,337 enrollments – 19% of all virtual enrollments. Mathematics, Social Sciences and History, and Life and Physical Sciences were the other subject areas with 10% or more of the virtual enrollments. In high enrollment subject areas (greater than 25,000 virtual enrollments), virtual pass rates varied from a low of 49% in Mathematics to a high of 65% for Miscellaneous. See *Table C1 and Table F6*. The virtual pass rates were consistently lower than the non-virtual pass rate for the virtual learners in their non-virtual courses, a trend observed in past years. See *Table C2*.

Highest Virtual Enrollment Courses

For English Language and Literature, the most highly enrolled in virtual courses were 9th, 10th, 11th, and 12th grade English/Language Arts. Of those four, the pass rate was lowest for 9th grade English/Language Arts (39%) and consistently rose for each subsequent grade level to finish at 55% for 12th grade English/Language Arts. See *Table C3*.

In Mathematics, Geometry, Algebra II, and Algebra I were the virtual courses with the highest enrollments. The pass rate across the top 10 most enrolled-in virtual mathematics courses ranged from a low of 35% for Algebra I to a high of 64% for Consumer Math. See *Table C4*.

Biology, Chemistry, and Earth Science were the three course titles responsible for more than 10% of the virtual enrollments in Life and Physical Sciences courses. A quarter of all Life and Physical Sciences virtual courses were taken in Biology. Biology also had the lowest pass rate (42%) of those in the top 10; the highest was Science (grade 8) at 62%. See *Table C5*.

For Social Sciences and History, the four course titles of U.S. History–Comprehensive, Economics, World History and Geography, and World History–Overview each yielded more than 10% of the virtual enrollments. Pass rates for the top 10 most enrolled in courses ranged from a low of 41% in World History and Geography to a high of 65% for Psychology. See *Table C6*.

Twenty-nine AP courses were taken virtually in 2018-19. AP Psychology was the most popular course accounting for 22% of the 3,742 AP enrollments. The pass rate for AP courses taken virtually was 84%. See *Table C7*. The pass rate for non-virtual AP courses taken by virtual learners was 93%.

Subject Area Enrollments by Locale

Course enrollment patterns were consistent across locales. For instance, Mathematics represented between 16% and 18% of the virtual enrollments for all (rural, town, suburban, city, and not specified) locales. The range was also 3% (11% to 14%) for Life and Physical Sciences and 7% in English Language and Literature. See *Table C8*. Pass rates in virtual courses also varied across subject areas and locale. For instance, in English Language and Literature, pass rates fell between 39% for not specified schools to 56% for suburban schools. In Mathematics, pass rates ranged from 35% (not specified) to 53% (suburban). See *Table C9*.

Subject Area Enrollments by Student Sex

Males and females enrolled in subject areas in similar proportions. In the four highest enrollment subject areas (English Language and Literature, Mathematics, Life and Physical Sciences, and Social Sciences and History), the proportion of enrollment from males and females was within one percent of each other. Pass rates did, however, show more variability by student sex; in most cases, females outperformed males – a trend that has been consistent with past years. See *Table C10*.

Courses by Virtual Method

Schools classified the virtual courses into one of three methods: Blended Learning, Digital Learning, or Online Learning. See page 402 of the *Michigan Student Data System Collection Details Manual Version 1.0* available from https://www.michigan.gov/documents/cepi/Collection_Details_SY18-19_v1.0_623424_7.pdf

- Blended Learning - A hybrid instructional delivery model where pupils are provided content, instruction, and assessment at a supervised educational facility where the pupil and teacher are in the same physical location and in part through internet-connected learning environments with some degree of pupil control over time, location, and pace of instruction. For a course to be considered blended, at least 30% of the course content is delivered online.
- Digital Learning - A course of study that is capable of generating a credit or a grade that is provided in an interactive internet-connected learning environment that does not contain an instructor within the online environment itself. There may be a teacher of record assigned to the course, but this teacher does not provide instruction to students through the online environment. For a course to be considered online as opposed to blended, all (or almost all) the course content is delivered online.
- Online Course - A course of study that is capable of generating a credit or a grade that is provided in an interactive internet-connected learning environment, where pupils are separated from their teachers by time or location, or both. For a course to be considered online as opposed to blended, all (or almost all) the course content is delivered online.

Blended Learning enrollments accounted for 8% of the virtual enrollments and had a pass rate of 49%. Digital Learning totaled 9% of the enrollments with a 54% pass rate. Online courses represented the majority of the enrollments (82%) and yielded a pass rate of 55%. See *Table C11*.

Students

> ### Fast Facts
> - 120,669 K-12 students took at least one virtual course which represented 8% of Michigan public school students.
> - 85% of virtual learners were in high school; 33% were seniors and 21% were juniors.
> - 49% of virtual learners passed all their virtual courses. Twenty-three percent of virtual learners did not pass any of their virtual courses.
> - Of the 27,663 students who did not pass any of their virtual courses, 41% took only one or two courses. Over 12,550 students took and did not pass five or more virtual courses with 3,778 students taking and not passing 11 or more virtual courses.
> - Female students had a higher pass rate (57%) than did males (53%).
> - Students in poverty made up the majority of virtual learners (57%) and virtual enrollments (66%). Students in poverty also had a lower pass rate (48% v. 69%).
> - Part-time virtual learners had higher pass rates (60%) compared to full-time virtual learners (49%). This also included student in poverty (52% v. 43%).
> - Students using special education services made up 11% of the virtual learners.
> - Pass rates were higher for students taking fewer virtual courses. Students taking one or two virtual courses had a 76% pass rate compared to 51% for those taking five or more.
> - White students represented 68% of virtual students; African-Americans were 17%.

By Grade Level

For the 2018-19 school year, 120,669 Michigan K-12 students, approximately 8% of students in the state, took at least one virtual course. This was a 7% increase in the number of virtual learners compared to what was reported for 2017-18. Only about 7% of the state's virtual learners were in grades K-5. Grades 6-8 were responsible for about 9% of the virtual learners. High school grade levels generated 85% of the virtual learners. About 33% of virtual learners were high school seniors and 21% were juniors. See *Table D1*.

By Student Sex

There were slightly more females (61,089) enrolled in virtual courses than males (59,593), though from a percentage perspective, each represented about half of the population. Females had a 4% higher pass rate (57% compared to males at 53%), continuing the trend seen in past years of females outperforming their male counterparts on this measure. See *Table D2* and *Table F7*.

By Race/Ethnicity

White students made up 68% of virtual students with African American students totaling the second highest percentage with 17%. Asian students had the only pass rate (76%) above 60%. See *Table D3* and *Table F8*.

By Poverty Status

Fifty-seven percent of virtual learners were classified as living in poverty. This is about 7% higher than the percentage of K-12 students statewide who were eligible for free or reduced lunch (50%) in the fall of 2018. See the *Fall State Free and Reduced Lunch Count file for the 2018-19 school*

year available from
https://www.mischooldata.org/Other/DataFiles/StudentCounts/HistoricalFreeAndReducedLunchCo
unts.aspx. Students living in poverty took 66% of the virtual enrollments for the year. This is the
same percentage as the prior year. The pass rate for students in poverty (48%) was 21
percentage points lower than students who were not in poverty (69%). See *Table D4* and *Table
F9*.

In addition to the performance gap between those in poverty and those not in poverty, there were
also differences in non-virtual pass rates. Virtual learners in poverty had a 68% pass rate in their
non-virtual courses, 20 percentage points better than their virtual pass rate. Interestingly, students
not in poverty had an 85% pass rate in their non-virtual courses, an improvement of 16 percentage
points over their virtual pass rate. Thus, students in poverty had a larger performance gap
between their virtual and non-virtual pass rates than did students who were not in poverty. See
Table D5.

Differences were apparent by virtual type. Sixty-seven percent of full-time virtual learners were in
poverty compared to 54% of part-time virtual learners. The pass rate for full-time virtual learners in
poverty was 43% compared to 52% for part-time virtual learners. See *Table D6*.

By Special Education Status
Students using special education services made up 11% of the virtual learners and 13% of the
virtual enrollments. These percentages are somewhat similar to the statewide percentage of
students using special education services (13.3%) for the 2018-19 school year. See the *2018-19
Special Education Data Portraits: Disability Snapshot* available from http://bit.ly/30DNUkX.
Students using special education services had a virtual pass rate of 48% compared to 56% for
those who did not. See *Table D7* and *Table F10*.

By Full-Time or Part-Time
About a quarter of students (31,176) were enrolled in cyber or full-time virtual schools. Students in
these schools accounted for 295,234 or 46% of the virtual enrollments for the year. The pass rate
for full-time virtual students was 49%. Three out for four virtual learning students are part-time
virtual learners, taking some courses virtually to supplement their face-to-face schedule. This
subset made up 54% of the virtual enrollments and had a pass rate of 60%. See *Table D8*. This
rate is about 16% lower than their pass rate in face-to-face courses (76%). See *Table D9*.

By Non-Virtual Course Performance
Part-time virtual learners with at least three non-virtual courses were classified into one of three
categories based on their success in those non-virtual courses. The three categories were:

- Passed all Non-Virtual Courses
- Did Not Pass 1 or 2 Non-Virtual Courses
- Did Not Pass 3 or More Non-Virtual Courses

In total, 62% of virtual learners had at least three or more non-virtual enrollments. Of that group,
47% of students passed all their non-virtual courses, 19% did not pass one or two, and 34% did
not pass three or more. There were clear differences in virtual pass rates between the three
categories. Students passing all of their non-virtual courses had an 82% virtual pass rate. Students

who did not pass one or two non-virtual courses had a virtual pass rate of 67%, and those with the lowest non-virtual success had a virtual pass rate of only 39%. See *Table D10*.

By Virtual Course Performance

Forty-nine percent of virtual learners passed every virtual enrollment they took. Twenty-three percent did not pass any of their virtual enrollments, and 28% passed some, but not all of their virtual enrollments. Students who passed all of their virtual courses were responsible for 31% of the virtual enrollments. Students with mixed success generated 48% of the enrollments, and students who did not pass any of their virtual courses contributed 21% of the virtual enrollments. These statistics are remarkably similar to last year. See *Table D11*.

For the students who did not pass any of their virtual courses, 41% only took one or two virtual courses. On the other hand, 12,559 students did not pass five or more virtual courses, and a staggering 3,778 students did not pass 11 or more virtual courses. Further analysis of students failing all of their 11 or more virtual courses showed 87% of these students had a single school report data for them. Over 2,500 of these students were primarily or exclusively enrolled through full-time virtual programs. Over 560 students were using special education services (15%) and slightly fewer than 3,100 of these students (81%) were in poverty. See *Table D12 and Table F11*.

What *Table F11* makes clear is that for students who do not pass any of their virtual enrollments, "withdrawns" and "incompletes" were rampant. For the virtual enrollments from students who did not pass any of their virtual enrollments, 47% had a "Withdrawn" status (exited, failing, or passing) and another 20% were classified as "Incomplete." For those taking 11 or more virtual courses, 44% had a "Withdrawn" status and 23% were marked "Incomplete". In each case, only 28% and 30% of the virtual enrollments, respectively, were actually classified as "Completed/Failed." Please see the section on *Pass Rate Calculations* for more elaboration on the impact of such issues on pass rates.

By Virtual Usage

Generally speaking, virtual learners did better when they took fewer virtual courses. Students taking one to two virtual courses had a pass rate of 76% compared to a pass rate of 64% for those taking three to four virtual courses and a pass rate of 51% for students taking five or more virtual courses. About 44% of students fell under the description of taking one or two virtual courses; however, 42% were found to have taken five or more virtual courses during the year. See *Table D13*.

State Assessment

> **Fast Facts**
> - 44% of 11th grade virtual learners who took the SAT were proficient in the Reading/Writing component. A quarter tested proficient in Math.
> - Higher proficiency rates were seen with higher non-virtual performance and with students who were not in poverty.
> - A higher percentage of part-time virtual learners reached levels of proficiency on state assessment measures than their full-time counterparts.

By Subject Area

State assessment data can be used to provide an independent measure of student performance. Based on SAT and M-STEP data from students in 11th grade, virtual learners showed lower percentages reaching proficiency on the Evidence-Based Reading and Writing (SAT), Mathematics (SAT), and Social Studies (M-STEP) examinations than the statewide proficiency rates. Forty-four percent of the 11th grade virtual learners tested proficient in Evidence-Based Reading and Writing and about a quarter were proficient in Mathematics. For Social Studies, 37% of the virtual learners reach proficiency. See *Table E1*.

By Non-Virtual Performance

As would be expected, the percentage of virtual learners testing proficient on these state tests varied considerably when accounting for their non-virtual performance. For instance, students taking a minimum of three non-virtual courses and passing all of them had proficiency rates that exceeded the statewide average for each of tests. Students who did not pass one or two of their non-virtual courses and those not passing three or more of their non-virtual courses had much lower rates of proficiency. See *Table E2*.

By Poverty Status

Students in poverty consistently recorded proficiency rates that were about 30 percentage points lower than their peers who were not in poverty. As an example, 29% of virtual learners in poverty scored proficient on the Evidence-Based Reading and Writing exam compared to 60% for those who were not in poverty. See *Table E3*.

By Full- or Part-Time Type

Students taking virtual courses in a part-time capacity had higher rates of proficiency on the assessments compared to full-time virtual learners. The gap was sizable; ranging from a high of 19 percentage points on the mathematics assessment to a low of 14 on the social studies exam. See *Table E4*.

Maps

Alpena-Montmorency-Alcona, Berrien, COOR, Gogebic-Ontonagon, Jackson, St. Joseph, and Tuscola ISDs/RESAs had at least 15% of students in their service areas take a virtual course in 2018-19. In total, there were 22 ISDs/RESA with 10% or more of the students taking virtual courses. See Figure 2.
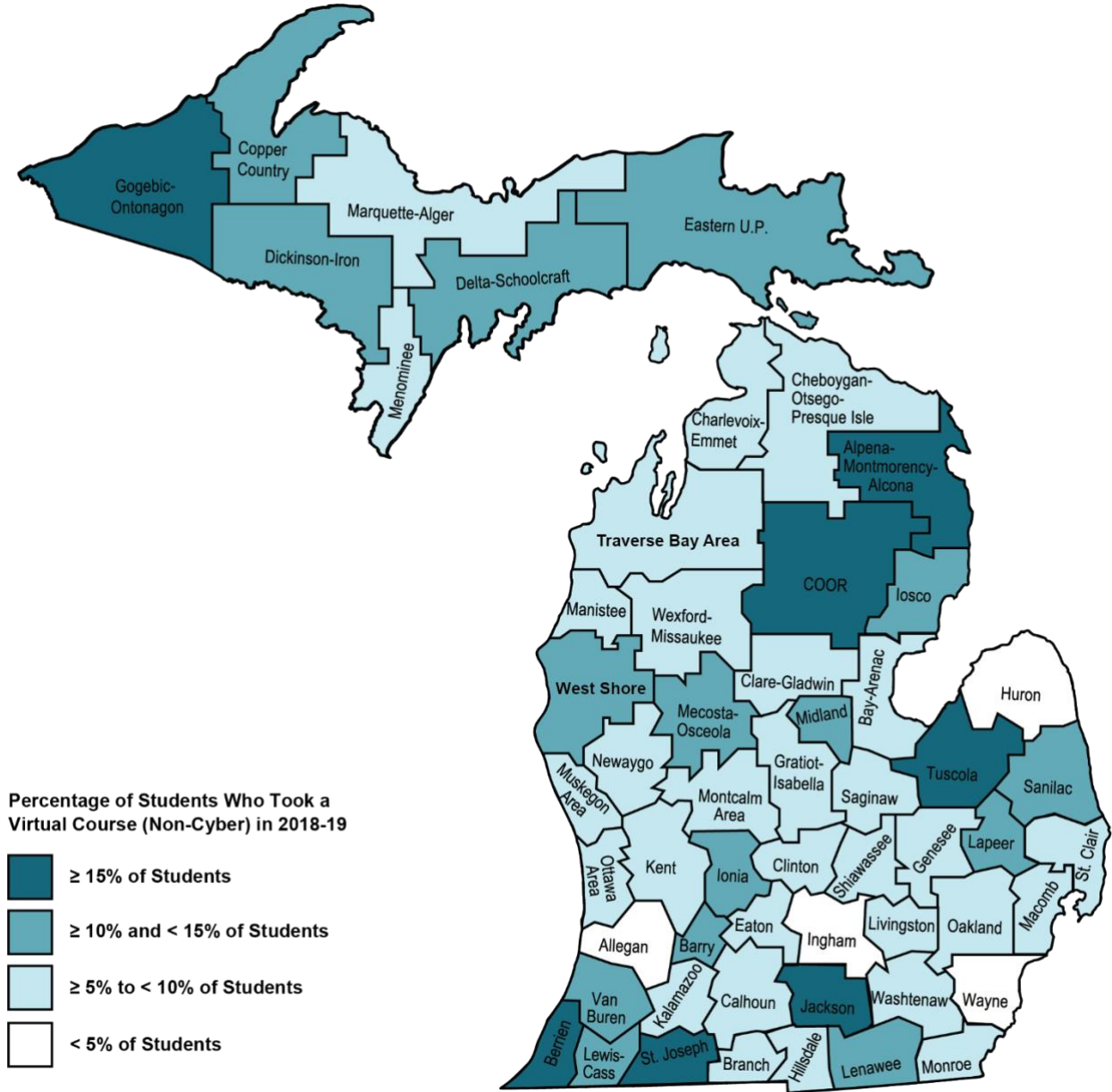
Figure 2. *2018-19 Percentage of Students Who Took a Virtual Course (Non-Cyber) by ISD*

One in five students attending a PSA cyber school resided within the Wayne RESA service area. The Macomb and Oakland ISD service area were the only other ISDs with 1,000 or more students attending PSA cyber schools. Genesee, Kent, and Ingham ISDs each had between 500 and less than 1,000 students from their area attending PSA cyber schools. See Figure 3.
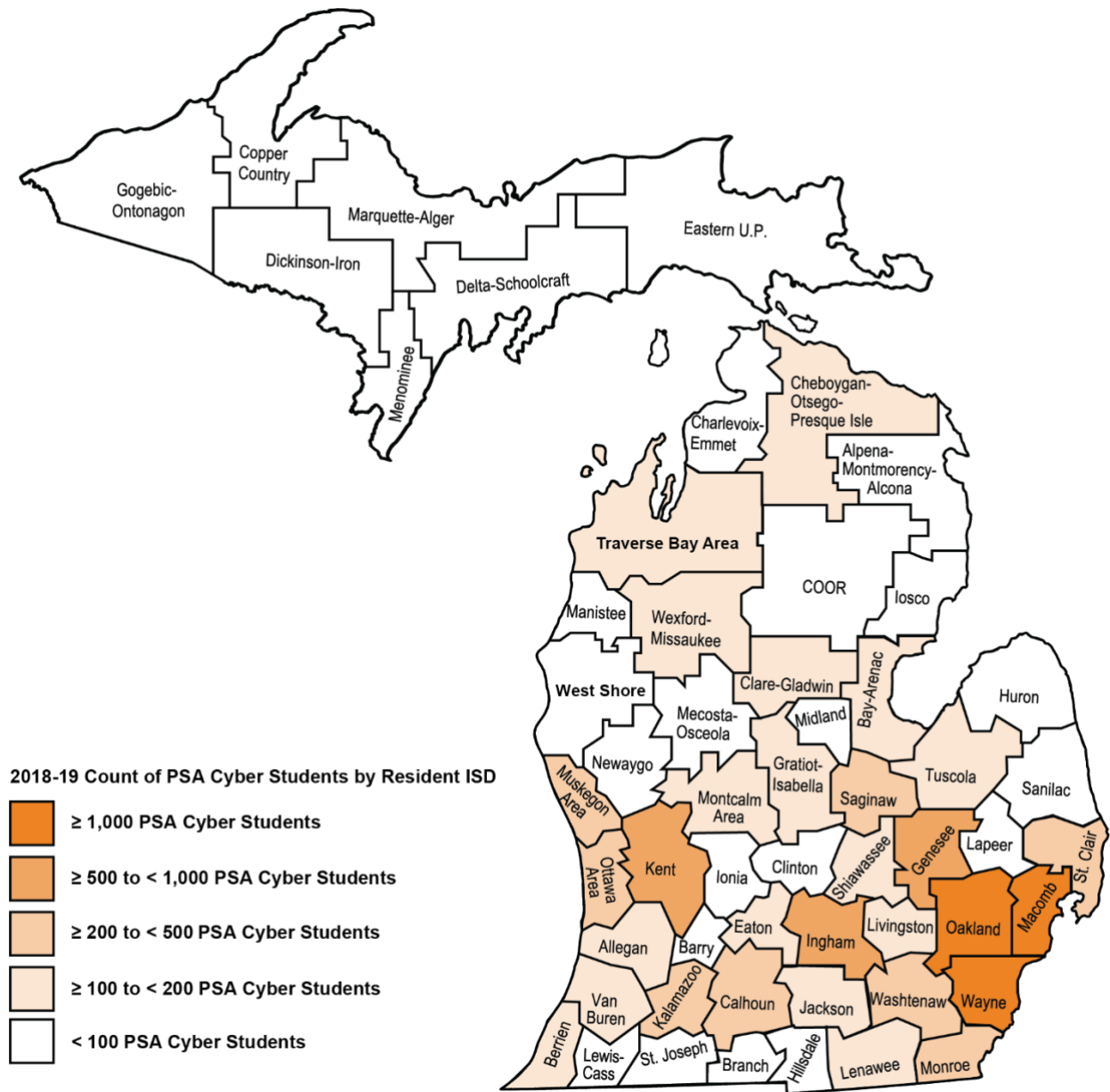
Figure 3. *2018-19 Count of PSA Cyber School Students by Resident ISD*

Conclusion

This year's report represents the ninth year of data on the effectiveness of virtual learning in Michigan's K-12 system. Many trends witnessed in past years continue to exist. See *Table 1*. The use of virtual learning as evidenced by the number of virtual learners, virtual enrollments, and schools with virtual learners continues to grow. At the same time, performance in virtual courses has been stagnant over the past several years.

Table 1. *Summary of Virtual Learning Metrics by School Year Since 2010-11*

School Year	# of Virtual Learners	# of Virtual Enrollments	# of Schools	Virtual Pass Rate
2010-11	36,348	89,921	654	66%
2011-12	52,219	153,583	850	62%
2012-13	55,271	185,053	906	60%
2013-14	76,122	319,630	1,007	57%
2014-15	91,261	445,932	1,072	60%
2015-16	90,878	453,570	1,026	58%
2016-17	101,359	517,470	1,102	55%
2017-18	112,688	581,911	1,158	55%
2018-19	120,669	639,130	1,225	55%

The overall pass rate remains a reason for pessimism. Successful implementations of virtual learning are outnumbered by poorly performing programs, and there are too many students having little to no success. Almost a quarter of students did not pass any of their virtual courses with over 12,550 students taking at least five virtual courses and passing none of them. These practices need to stop. They need to be replaced by the practices at the more than 500 Michigan schools with virtual pass rates of 80% or higher. In these higher performing schools, the data show:

- *Successful virtual programs can support various numbers of students, enrollments, and courses offerings* – These schools showed success with less than 10 students (36%) and more than 50 students (41%). Some offered few enrollments (over 100 schools had less than 10 virtual enrollments) while others offered many (over 200 schools had 100 or more). They also varied in the numbers of course titles offered. About 40% offered 10 or fewer virtual courses titles. About a quarter had between 26 and 50 courses, and over 10% of the schools had students in more than 50 different virtual courses.
- *LEA and PSA schools can offer successful virtual programs* – Over 40 percent of LEA schools with virtual programs had schoolwide virtual pass rates of 80% or higher. For PSA schools, it was about one out of every three. Both traditional school districts and charter districts can run successful virtual programs.
- *Schools in cities, suburbs, towns, and rural settings are proving virtual learning success* – There were more than 75 city and 75 town schools with virtual pass rates of 80% or higher. There were just shy of 150 for suburban locales, and almost 190 of such schools in rural settings. These schools are proving virtual learning can succeed across the various geographies of the state.
- *These schools show strong results across students of different race/ethnicities* – Whereas a sizable performance gap exists for students based on their race/ethnicity when looking at

all virtual programs, those gaps close substantially for these 500+ schools. Consider that the pass rate for African-American or Black students is 90% in these schools (compared to 43% in the overall virtual population) and only lags the White virtual pass rate in these schools by 1% (compared to 16% in the overall virtual population). For each of the known race/ethnicities, the virtual pass rate ranges between 88% to 93% for these schools.

- *Students in poverty are succeeding in these virtual programs* – Recall that across the entire state, students in poverty had a pass rate (48%) that was 21 percentage points lower than those virtual students who were not in poverty. For these 500+ schools, the virtual pass rate for students in poverty rose to 88% - much closer to the 92% virtual pass rate for the students who were not in poverty. Students in poverty continued to represent a large percentage of virtual learners (40%) in these schools, but quite a bit smaller than the 57% seen in all virtual programs across the state.

- *Both full- and part-time programs can run effective virtual programs* – These 500+ schools show that over 40% of part-time programs were able to yield schoolwide virtual pass rates of 80% or higher. It appears a bit more difficult for full-time programs, but 12 of the 79 full-time programs also achieved this success benchmark.

- *Both general education and alternative education programs reached 80% school-wide virtual pass rates* - There were over 450 general education schools in Michigan that achieved schoolwide virtual pass rates of 80% or higher. This was one out of every two general education schools with virtual programs. For alternative programs, 42 schools reached this mark. As a percentage of alternative programs, it represented just 14% of such schools, indicating that while possible, this threshold of success remains a sizable challenge.

- *Virtual students can perform at or above their face-to-face performance level* – In these 500+ schools, there were over 6,000 virtual learners who took a minimum of three virtual courses and had data for a minimum of three non-virtual courses. Eighty-one percent of these students had virtual pass rates that met or exceeded their non-virtual pass rates.

Clearly, these schools support the conclusion that online learning can and does work for many schools and students. We need more of these kinds of programs.

The data in this report can help schools and stakeholders evaluate their virtual learning programs. It can yield important insight and inform critical conversations about what is working and for whom it is working, and what is not working and under what circumstances those results are occurring. *Michigan Virtual* has created many resources[2] that can assist schools in reflecting upon and improving their virtual programs. These resources include an expanding series of practical guides designed for students, parents, teachers, mentors, school administrators, and school board members. *Michigan Virtual* also provides quality reviews of their online learning programs to Michigan schools at no cost.

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[2] The *free resources* are available at https://michiganvirtual.org/resources/

Appendix A - Methodology

About the Data

The data for this report came from the following sources:

- Michigan Student Data System – School Year 2018-2019;
- Educational Entity Master (EEM);
- Michigan Student Data System Teacher Student Data Link (TSDL) – Collection Year 2018-2019; and
- *Michigan's K-12 Virtual Learning Effectiveness Report, 2017-18* – Used for comparing this year's data with the 2017-18 school year. That report is available as a free download from https://michiganvirtual.org/research/publications/michigans-k-12-virtual-learning-effectiveness-report-2017-18/

Because the data for this report incorporates this variety of sources, the findings within may differ from those found through the MI School Data portal which may use different query parameters.

The majority of enrollments classified as virtual in this report were treated as such due to the TSDL virtual method field indicating virtual delivery. However, this field is known to contain inaccuracies. For the purposes of this report, additional methods were used to identify enrollments with a high likelihood of having been delivered virtually. Each of the methods used, along with the percentage of enrollments it contributed to the total, are outlined below.

- TSDL Virtual Method Flag = Yes. Enrollments where the TSDL virtual method field was set to "Blended Learning," "Digital Learning," or "Online Course" were treated as virtual. According to the TSDL Data Collection Manual, the virtual method field "indicates the type of virtual instruction the student is receiving. This could be virtual learning, online learning or computer courses; distance learning; or self-scheduled virtual learning" (see page 402 of the *Michigan Student Data System Collection Details Manual Version 1.0* available from https://www.michigan.gov/documents/cepi/Collection_Details_SY18-19_v1.0_623424_7.pdf). This strategy yielded 99% (631,667) of the virtual enrollments.
- TSDL Local Course Title Field References *Michigan Virtual*. The strategy of searching the local course title field for common references to *Michigan Virtual* yielded less than 1% (864) of the virtual enrollments. The wild card search criteria for *Michigan Virtual* consisted of the following: '%MI Virtual%', '%Mich Virt%', '%MIVHS%', '%MIVS%', '%MVS%', '%MVU%', '%VH', '%MVHS%', '%MIVU%', '%VHS%', 'MV%', '%MV', '%Michigan Virtual%', '%IS: MV%', '%IS:MV%', '%MI Virt%', '%MV HS%', 'Virtual HS%', and 'Mich. Virtual High School%'.
- Local Course Title Field References Common Third Party Providers. Searching the local course title field for common references to known third-party providers of virtual courses yielded less than 1% (2,333) of the virtual enrollments. The wild card search criteria for common third-party providers consisted of the following: '%Apex%', 'APX%', '%Aventa%', '%BYU%', '%Brigham%', '%Compass%', '%Edgen%', '%2020%', '%20/20%', '%20-20%', '%E20%', '%Edison%', '%FLVS%', '%FVS%', '%GenNet%', '%Gen Net%', '%K12 Virtual%', '%K12:%', '%K12vs%', '%Lincoln Int%', '%Little Lincoln%', '%- Lincoln%',

'%(Lincoln)%', '%Lincoln', '%UNL%', '%Middlebury%', '%Nova net%', '%Novanet%', '%Odyssey%','%Odware%', 'ODY%', '%(OD%', '%Edmentum%', and '%Plato%'.

- TSDL Local Course Title Field References Common Generic Labels for Online or Virtual Learning. Searching the local course title field for common references to online, distance, or virtual learning yielded less than 1% (4,266) of the virtual enrollments. The wild card search criteria for common generic labels for online or virtual learning consisted of the following: '%Online%', '%On-line%', '%On line%', '%onl', '%onli', '%onlin', '%- OL', '%-OL', '%O/L%', 'OL %', '%STW%', '%E-Learn%', '%E-LRN%', '%Virtual%', '%- virt%', and '%-DL'.

Michigan Virtual Students

In past years of this report, data on *Michigan Virtual* students were presented with two known issues. First, because *Michigan Virtual* is not a school entity and its data are not part of the state data sets, *Michigan Virtual* and CEPI used a matching process to attempt to tie the records together. This was always an imperfect matching process where some students taking *Michigan Virtual* courses were not able to be linked in the data set and, therefore, under-reported on students taking courses with *Michigan Virtual*. The second issue was that even when the process yielded a match for a student, it could not be determined which virtual courses the student took with *Michigan Virtual* as opposed to another course provider. Faced with that dilemma, the approach taken was to count all virtually delivered enrollments for such students as being provided by *Michigan Virtual*, recognizing that not all were actually delivered by *Michigan Virtual*.

In preparing this year's report, it was determined that the impact these two issues had on the data were significant enough to render the reporting value moot. However, *Michigan Virtual's Annual Report for 2018-19*, available from https://michiganvirtual.org/wp-content/uploads/2019/11/2018-2019-Michigan-Virtual-Annual-Report.pdf, does contain information on its student enrollments. For instance, data are provided on the number of students served (over 16,900), districts served (over 60% of LEA Districts), enrollments served (over 30,100) and its pass rate (82%). For more information about *Michigan Virtual* enrollments for the same school year as this report, please see that annual report.

Pass Rate Calculations

For this report, the pass rate was calculated based on the values recorded in the "Completion Status" field. For more information about the Completion Status field, including definitions for each status, see page 396 of the *Michigan Student Data System Collection Details Manual Version 1.0* available from https://www.michigan.gov/documents/cepi/Collection_Details_SY18-19_v1.0_623424_7.pdf. Column one of Table A1 displays the various statuses reported by schools for the virtual enrollments.

Table A1. *2018-19 Number and Percentage of Virtual Enrollments by Completion Status*

Completion Status	# of Enrolls	% of Enrolls
Audited (No Credit Issued)	10,957	2%
Completed/Failed	99,927	16%
Completed/Passed	**350,594**	**55%**
Incomplete	65,162	10%
Ongoing Enrolled	42	0%
Testing Out	112	0%
Withdrawn/Exited	64,013	10%
Withdrawn/Failing	16,334	3%
Withdrawn/Passing	31,989	5%
Total	**639,130**	**100%**

Throughout this report, the pass rate calculated simply represents the percentage of virtual enrollments with a status of "Completed/Passed." Notice that the percentage of enrollments with a "Completed/Passed" status in Table A1 matches the statewide pass rate. This pass rate formula remains consistent with past reports. Please keep in mind that calculating the pass rate in this manner will result in the lowest possible percentage.

To illustrate why this is, consider the completion status of "Audited (No Credit Issued)." These virtual enrollments are not "failures" per se; however, including these enrollments in the total counts adds to the formula's denominator without impacting to the numerator, the effect of which is to lower the percentage of other completion statuses including "Completed/Passed." Another example is enrollments with a completion status of "Incomplete." About 10% of the virtual enrollments in this report were classified as "Incomplete." As such, they are treated in the report's pass rate formula as zero passes, even though some may eventually be awarded a passing status. Finally, it is unclear how to best treat enrollments with a "Withdrawn" status. For instance, 5% of the virtual enrollments in 2018-19 were marked as "Withdrawn/Passing," meaning that the student was passing the course at the time the student was withdrawn. Should these enrollments be counted as failures? What about students whose enrollments were marked as "Withdrawn/Exited" (10% of the virtual enrollments)? There is no way to determine whether that exiting occurred in the first few weeks of class or the final weeks of class. The data do not provide insight into whether the student was reenrolled in a different course or whether it was too late for reenrollment in a credit-bearing opportunity for the student.

The research team raises these issues because they represent questions for which there are no definitive answers. In the end, the team decided to report the pass rate as the percentage of all virtual enrollments that were reported as "Completed/Passed." To provide readers with a better idea of the impact of this approach, additional data tables are provided in Appendix F to allow interested readers in drawing their own conclusions and calculating their own formulas for many of the pass rates reported.

Data Limitations

Because of the methodology described above, some enrollments are counted as virtual in this report that should not be – either because they were mistakenly marked as virtual by the school

and/or because the local course title searches implemented by the research team yielded false positives. On the other hand, it is also safe to assume that some enrollments that should have been marked as virtual were not, both because they were not correctly flagged by the school and because the local course title did not give an indication of its virtual nature that aligned with the conventions used in the strategies outlined above. Consequently, the figures in this report should be treated as estimates that, generally speaking, convey the trends observed for the school year.

One final caveat for interpreting the results published in this report: There is clear variability in what schools report to the state as a "course." Some records align well with reporting conventions outlined by the U.S. Department of Education under their School Codes for the Exchange of Data (SCED) (see the U.S. Department of Education's *School Codes for the Exchange of Data* available from http://nces.ed.gov/pubs2007/2007341.pdf). However, a review of the data suggests that many schools submit course records that may be better described as course units or lessons. Hence, while one district may report a single course for a child, for instance, Algebra I, another school might submit five such records, all with the same subject areas and course identifier codes, but with different local course IDs. *Table A2* provides a glimpse into such reporting variability. Consider the part-time schools. For that group, 48% of the students had 11 to 15 courses reported (including both virtual and non-virtual enrollments), but 21% of part-time students had more than that. This issue is pointed out to alert readers that not all courses likely represent a semester- or trimester-length unit.

Table A2. 2018-19 Percentage of Students by Total Student Course Counts (Virtual and Non-Virtual) and Full- or Part-Time Schools

Total Course Count by Student	Full-Time	Part-Time
1 to 5	12%	10%
6 to 10	29%	22%
11 to 15	43%	48%
16 to 20	11%	15%
21+	5%	6%
Total	**100%**	**100%**

Appendix – B School Tables

Table B1. 2018-19 Count and Pass Rate of K-12 Virtual Enrollments by Grade Level

Grade Level	# of Enrolls	% of Enrolls	% Change	Pass Rate	% Change from 17-18
K	8,356	1%	11%	74%	4%
1	10,029	2%	23%	69%	2%
2	10,118	2%	-4%	69%	8%
3	9,578	1%	-4%	71%	0%
4	11,229	2%	-3%	71%	2%
5	13,656	2%	16%	67%	-2%
6	17,924	3%	6%	66%	1%
7	22,931	4%	0%	63%	0%
8	30,283	5%	5%	60%	1%
9	97,326	15%	8%	41%	0%
10	112,447	18%	10%	48%	2%
11	117,195	18%	13%	53%	-2%
12	178,058	28%	13%	59%	-3%
Total	**639,130**	**100%**	**10%**	**55%**	**0%**

Table B2. 2018-19 Pass Rate Comparison for Virtual Learners for Their Virtual and Non-Virtual Courses

Grade Level	Virtual Pass Rate	Non-Virtual Pass Rate
K	74%	51%
1	69%	65%
2	69%	67%
3	71%	55%
4	71%	59%
5	67%	72%
6	66%	81%
7	63%	68%
8	60%	69%
9	41%	66%
10	48%	73%
11	53%	79%
12	59%	81%
Total	**55%**	**76%**

Table B3. *2018-19 Number and Percentage of Schools by School Pass Rate*

School Pass Rate	# of Schools	% of Schools
0% to <10%	80	7%
10% to <20%	34	3%
20% to <30%	55	4%
30% to <40%	77	6%
40% to <50%	72	6%
50% to <60%	121	10%
60% to <70%	135	11%
70% to <80%	147	12%
80% to <90%	188	15%
90% to 100%	316	26%
Total	**1,225**	**100%**

Table B4. *2018-19 Number and Percentage of Schools and Virtual Enrollments by Entity Type*

Entity Type	# of Schools	% of Schools	# of Enrolls	% of Enrolls
ISD School	28	2%	8,420	1%
LEA School	1,072	88%	368,579	58%
LEA Unique Ed. Provider	15	1%	11,638	2%
PSA School	110	9%	250,493	39%
Total	**1,225**	**100%**	**639,130**	**100%**

Table B5. *2018-19 Virtual Pass Rate by Entity Type*

Entity Type	Pass Count	# of Enrolls	Pass Rate
ISD School	5,013	8,420	60%
LEA School	214,941	368,579	58%
LEA Unique Ed. Provider	8,060	11,638	69%
PSA School	122,580	250,493	49%
Total	**350,594**	**639,130**	**55%**

Table B6. *2018-19 Number and Percentage of Full-Time (FT) Virtual or Cyber Schools*

Entity Type	# of FT Schools	% of FT Schools
ISD School	1	1%
LEA School	59	75%
LEA Unique Ed. Provider	3	4%
PSA School	16	20%
Total	**79**	**100%**

Table B7. 2018-19 Number and Percentage of Students and Enrollments from Full-Time (FT) Virtual or Cyber Schools with Pass Rates

Entity Type	# of FT Students	% of FT Students	# of FT Enrolls	% of FT Enrolls	Pass Rate
ISD School	NR	NR	NR	NR	NR
LEA School	11,740	38%	92,885	31%	51%
LEA Unique Ed. Provider	NR	NR	NR	NR	NR
PSA School	18,916	61%	199,694	68%	49%
Total	**31,176**	**100%**	**295,234**	**100%**	**49%**

Note: Data are not reported (NR) if there were less than 10 schools for that cell or to prevent calculating cell value.

Table B8. 2018-19 Number and Percentage of Schools with Part-Time (PT) Virtual Schools

Entity Type	# of PT Schools	% of PT Schools
ISD School	27	2%
LEA School	1,013	88%
LEA Unique Ed. Provider	12	1%
PSA School	94	8%
Total	**1,146**	**100%**

Table B9. 2018-19 Number and Percentage of Students and Enrollments from Part-Time (PT) Virtual Schools with Pass Rates

Entity Type	# of PT Students	% of PT Students	# of PT Enrolls	% of PT Enrolls	Pass Rate
ISD School	1,502	2%	7,698	2%	58%
LEA School	78,753	86%	275,694	80%	61%
LEA Unique Ed. Provider	2,164	2%	9,705	3%	80%
PSA School	9,433	10%	50,799	15%	50%
Total	**91,181**	**100%**	**343,896**	**100%**	**60%**

Table B10. 2018-19 Number and Percentage of Schools and Virtual Enrollments by School Emphasis

School Emphasis	# of Schools	% of Schools	# of Enrolls	% of Enrolls
Alternative Education	290	24%	277,894	43%
General Education	916	75%	357,347	56%
Reportable Program	NR	NR	NR	NR
Special Education	17	1%	3,829	1%
Vocational/CTE	NR	NR	NR	NR
Total	**1,225**	**100%**	**639,130**	**100%**

Note: Data are not reported (NR) if there were less than 10 schools for that cell or to prevent calculating cell value.

Table B11. *2018-19 Virtual Pass Rate by School Emphasis*

School Emphasis	Pass Count	# of Enrolls	Pass Rate
Alternative Education	115,960	277,894	42%
General Education	232,583	357,347	65%
Reportable Program	NR	NR	NR
Special Education	1,992	3,829	52%
Vocational/CTE	NR	NR	NR
Total	**350,594**	**639,130**	**55%**

Note: Data are not reported (NR) if there were less than 10 schools for that cell or to prevent calculating cell value.

Table B12. *2018-19 Virtual Pass Rates for General Education and Alternative Education Schools by Entity Type*

Entity Type	General Ed Pass Rate	Alternative Ed Pass Rate
ISD School	NR	NR
LEA School	74%	44%
LEA Unique Ed. Provider	NR	65%
PSA School	57%	30%
Total	**65%**	**42%**

Note: Data are not reported (NR) if there were less than 10 schools for that cell.

Table B13. *2018-19 Number and Percentage of Schools and Virtual Enrollments by Number of Virtual Enrollments per School*

# of Virtual Enrolls Per School	# of Schools	% of Schools	# of Enrolls	% of Enrolls
1 to 9	221	18%	897	0%
10 to 19	84	7%	1,187	0%
20 to 29	49	4%	1,195	0%
30 to 39	36	3%	1,250	0%
40 to 49	34	3%	1,510	0%
50 to 59	22	2%	1,198	0%
60 to 69	22	2%	1,417	0%
70 to 79	23	2%	1,702	0%
80 to 89	29	2%	2,474	0%
90 to 99	26	2%	2,454	0%
100+	679	55%	623,846	98%
Total	**1,225**	**100%**	**639,130**	**100%**

Table B14. 2018-19 Percentage of Schools by Ratio of Virtual Courses to Student and School Pass Rate

School Pass Rate	1 to 2 Virtual Courses/Learner	3 to 4 Virtual Courses/Learner	4+ Virtual Courses/Learner
0% to <10%	8%	5%	6%
10% to <20%	1%	3%	6%
20% to <30%	2%	3%	9%
30% to <40%	1%	4%	16%
40% to <50%	4%	4%	10%
50% to <60%	7%	10%	13%
60% to <70%	9%	13%	12%
70% to <80%	13%	16%	5%
80% to <90%	19%	18%	7%
90% to 100%	36%	23%	15%
Total	**100%**	**100%**	**100%**

Table B15. 2018-19 Number and Percentage of Schools and Virtual Enrollments by Locale

Locale	# of Schools	% of Schools	# of Enrolls	% of Enrolls
City	188	15%	127,395	20%
Not Specified	37	3%	50,187	8%
Rural	422	34%	159,755	25%
Suburban	381	31%	195,895	31%
Town	197	16%	105,898	17%
Total	**1,225**	**100%**	**639,130**	**100%**

Table B16. 2018-19 Percentage of Schools with Virtual Enrollments by Virtual Enrollment Totals and Locale

Locale	1 to 24 Enrolls	25 to 49 Enrolls	50 to 74 Enrolls	75 to 99 Enrolls	100+ Enrolls	Total
City	32%	9%	5%	2%	52%	100%
Not Specified	22%	5%	0%	3%	70%	100%
Rural	23%	10%	6%	8%	54%	100%
Suburban	30%	6%	4%	4%	56%	100%
Town	26%	6%	4%	7%	58%	100%

Table B17. *2018-19 Virtual Pass Rate by Locale*

Locale	Pass Rate	% Change from 17-18
City	51%	0%
Not Specified	50%	11%
Rural	51%	-9%
Suburban	60%	0%
Town	58%	-1%
Total	**55%**	**0%**

Table B18. *2018-19 Percentage of Schools with Virtual Enrollments by Building Pass Rate and Locale*

Locale	0% to <20% Pass Rate	20% to <40% Pass Rate	40% to <60% Pass Rate	60% to <80% Pass Rate	80% to 100% Pass Rate	Total
City	16%	13%	15%	15%	40%	100%
Not Specified	27%	19%	11%	8%	35%	100%
Rural	7%	9%	14%	27%	43%	100%
Suburban	9%	10%	18%	25%	39%	100%
Town	7%	13%	19%	23%	39%	100%

Appendix – C Course Tables

Table C1. *2018-19 Number and Percentage of Virtual Enrollments with Pass Rate by Subject Area*

Subject Area	# of Enrolls	% of Enrolls	Pass Rate
Agriculture, Food, and Natural Resources	960	0%	76%
Architecture and Construction	260	0%	79%
Business and Marketing	8,572	1%	69%
Communication and Audio/Visual Technology	3,285	1%	66%
Computer and Information Sciences	11,110	2%	59%
Engineering and Technology	4,203	1%	62%
English Language and Literature	119,337	19%	51%
Fine and Performing Arts	39,973	6%	60%
Foreign Language and Literature	37,669	6%	54%
Health Care Sciences	4,070	1%	61%
Hospitality and Tourism	935	0%	59%
Human Services	1,497	0%	80%
Life and Physical Sciences	86,673	14%	51%
Manufacturing	74	0%	78%
Mathematics	110,384	17%	49%
Military Science	134	0%	75%
Miscellaneous	52,657	8%	65%
Nonsubject Specific	713	0%	73%
Physical, Health, and Safety Education	48,431	8%	61%
Public, Protective, and Government Services	2,074	0%	68%
Religious Education and Theology	150	0%	87%
Social Sciences and History	105,844	17%	55%
Transportation, Distribution, and Logistics	125	0%	84%
Total	**639,130**	**100%**	**55%**

__Table C2__. 2018-19 Pass Rate Comparison for Virtual Learners for Their Virtual and Non-Virtual Courses by Subject Area

Subject Area	Virtual Pass Rate	Non-Virtual Pass Rate
Agriculture, Food, and Natural Resources	76%	82%
Architecture and Construction	79%	84%
Business and Marketing	69%	84%
Communication and Audio/Visual Technology	66%	87%
Computer and Information Sciences	59%	79%
Engineering and Technology	62%	83%
English Language and Literature	51%	76%
Fine and Performing Arts	60%	84%
Foreign Language and Literature	54%	74%
Health Care Sciences	61%	87%
Hospitality and Tourism	59%	81%
Human Services	80%	87%
Life and Physical Sciences	51%	75%
Manufacturing	78%	81%
Mathematics	49%	72%
Military Science	75%	81%
Miscellaneous	65%	74%
Nonsubject Specific	73%	64%
Physical, Health, and Safety Education	61%	79%
Public, Protective, and Government Services	68%	86%
Religious Education and Theology	87%	90%
Social Sciences and History	55%	75%
Transportation, Distribution, and Logistics	84%	81%
Total	**55%**	**76%**

Table C3. 2018-19 Number and Percentage of Virtual Enrollments with Pass Rate by Course Title for the Top 10 Most Enrolled in English Language and Literature Courses

English Language and Literature Course Titles	# of Enrolls	% of Enrolls	Pass Rate
English/Language Arts I (9th grade)	22,570	19%	39%
English/Language Arts II (10th grade)	20,599	17%	42%
English/Language Arts III (11th grade)	17,944	15%	51%
English/Language Arts IV (12th grade)	17,652	15%	55%
Language Arts (grade 8)	3,977	3%	55%
Language Arts (grade 5)	3,060	3%	56%
Language Arts (grade 7)	2,979	2%	56%
English Language and Literature—Other	2,488	2%	55%
Language Arts (grade 4)	2,335	2%	58%
American Literature	2,291	2%	56%
Total	**95,895**	**80%**	**48%**

Note: % of Enrolls based on the overall total of 119,337 for this subject area.

Table C4. 2018-19 Number and Percentage of Virtual Enrollments with Pass Rate by Course Title for the Top 10 Most Enrolled in Mathematics Courses

Mathematics Course Titles	# of Enrolls	% of Enrolls	Pass Rate
Geometry	21,817	20%	44%
Algebra II	19,009	17%	49%
Algebra I	18,071	16%	35%
Consumer Math	7,533	7%	64%
Algebra I—Part 1	4,990	5%	38%
Pre-Algebra	4,611	4%	42%
Mathematics—Other	3,965	4%	47%
Mathematics (grade 7)	3,336	3%	59%
Mathematics (grade 8)	2,996	3%	53%
Algebra I—Part 2	2,926	3%	46%
Total	**89,254**	**81%**	**46%**

Note: % of Enrolls based on the overall total of 110,384 for this subject area.

Table C5. *2018-19 Number and Percentage of Virtual Enrollments with Pass Rate by Course Title for the Top 10 Most Enrolled in Life and Physical Sciences Courses*

Life and Physical Sciences Course Titles	# of Enrolls	% of Enrolls	Pass Rate
Biology	21,426	25%	42%
Chemistry	15,062	17%	48%
Earth Science	9,918	11%	43%
Physical Science	6,676	8%	48%
Physics	3,309	4%	58%
Earth/Space Science	3,234	4%	57%
Environmental Science	3,202	4%	59%
Life and Physical Sciences—Other	2,358	3%	56%
Earth and Space Science	1,946	2%	50%
Science (grade 8)	1,878	2%	62%
Total	**69,009**	**80%**	**48%**

Note: % of Enrolls based on the overall total of 86,673 for this subject area.

Table C6. *2018-19 Number and Percentage of Virtual Enrollments with Pass Rate by Course Title for the Top 10 Most Enrolled in Social Sciences and History Courses*

Social Sciences and History Course Titles	# of Enrolls	% of Enrolls	Pass Rate
U.S. History—Comprehensive	16,718	16%	50%
Economics	12,200	12%	56%
World History and Geography	11,855	11%	41%
World History—Overview	11,671	11%	53%
U.S. Government—Comprehensive	7,185	7%	56%
Psychology	5,010	5%	65%
Civics	4,885	5%	47%
Modern U.S. History	3,574	3%	50%
Sociology	3,002	3%	62%
U.S. History—Other	2,701	3%	42%
Total	**78,801**	**74%**	**52%**

Note: % of Enrolls based on the overall total of 105,844 for this subject area.

Table C7. 2018-19 Number and Percentage of Virtual Enrollments with Pass Rate by Course Title for AP Courses

AP Course Title	# of Enrolls	% of Enrolls	Pass Rate
AP Art—History of Art	54	1%	72%
AP Biology	167	4%	80%
AP Calculus AB	137	4%	85%
AP Calculus BC	92	2%	88%
AP Chemistry	137	4%	90%
AP Comparative Government and Politics	5	0%	NR
AP Computer Science A	221	6%	91%
AP Computer Science AB	32	1%	84%
AP Economics	9	0%	NR
AP English Language and Composition	219	6%	88%
AP English Literature and Composition	251	7%	84%
AP Environmental Science	106	3%	83%
AP European History	6	0%	NR
AP French Language	23	1%	NR
AP Government	47	1%	62%
AP Human Geography	52	1%	100%
AP Macroeconomics	213	6%	87%
AP Microeconomics	189	5%	88%
AP Music Theory	80	2%	40%
AP Physics B	77	2%	77%
AP Physics C	46	1%	100%
AP Psychology	809	22%	84%
AP Spanish Language	97	3%	74%
AP Statistics	243	6%	89%
AP Studio Art—Drawing Portfolio	1	0%	NR
AP Studio Art—General Portfolio	3	0%	NR
AP U.S. Government and Politics	77	2%	82%
AP U.S. History	197	5%	81%
AP World History	152	4%	79%
Total	**3,742**	**100%**	**84%**

Note: An additional 519 enrollments had a course type listed as Advanced Placement, but did not match an AP SCED Code. Similarly, there existed local course titles with AP in the title that did not have an AP SCED Code. Thus, it is very likely the data above underreports the number of students taking AP courses virtually. Pass Rates are not reported (NR) if there were less than 25 for that cell.

Table C8. *2018-19 Virtual Enrollment Percentage by Subject Area and Locale*

Subject Area	% City	% Not Specified	% Rural	% Suburb	% Town
Agriculture, Food, and Natural Resources	0%	0%	0%	0%	0%
Architecture and Construction	0%	0%	0%	0%	0%
Business and Marketing	1%	1%	2%	2%	1%
Communication and Audio/Visual Technology	0%	1%	1%	1%	0%
Computer and Information Sciences	1%	2%	2%	2%	1%
Engineering and Technology	1%	1%	1%	0%	0%
English Language and Literature	20%	14%	19%	17%	21%
Fine and Performing Arts	7%	14%	5%	5%	5%
Foreign Language and Literature	5%	6%	7%	6%	5%
Health Care Sciences	0%	0%	1%	1%	1%
Hospitality and Tourism	0%	0%	0%	0%	0%
Human Services	0%	0%	0%	0%	0%
Life and Physical Sciences	14%	11%	14%	14%	14%
Manufacturing	0%	0%	0%	0%	0%
Mathematics	17%	16%	18%	18%	17%
Military Science	0%	0%	0%	0%	0%
Miscellaneous	7%	11%	7%	9%	8%
Nonsubject Specific	0%	0%	0%	0%	0%
Physical, Health, and Safety Education	8%	13%	7%	6%	8%
Public, Protective, and Government Services	0%	0%	0%	0%	0%
Religious Education and Theology	0%	0%	0%	0%	0%
Social Sciences and History	17%	12%	18%	17%	17%
Transportation, Distribution, and Logistics	0%	0%	0%	0%	0%
Total	**100%**	**100%**	**100%**	**100%**	**100%**

Table C9. *2018-19 Virtual Enrollment Pass Rates by Subject Area and Locale*

Subject Area	City Pass Rate	Not Specified Pass Rate	Rural Pass Rate	Suburb Pass Rate	Town Pass Rate
Agriculture, Food, and Natural Resources	78%	NR	71%	78%	85%
Architecture and Construction	NR	NR	86%	24%	96%
Business and Marketing	58%	42%	71%	70%	77%
Communication and Audio/Visual Tech.	59%	46%	73%	65%	77%
Computer and Information Sciences	35%	51%	62%	65%	72%
Engineering and Technology	56%	82%	46%	87%	93%
English Language and Literature	49%	39%	47%	56%	55%
Fine and Performing Arts	57%	70%	45%	65%	66%
Foreign Language and Literature	55%	41%	51%	56%	62%
Health Care Sciences	77%	48%	78%	45%	65%
Hospitality and Tourism	69%	47%	70%	49%	69%
Human Services	74%	49%	86%	72%	87%
Life and Physical Sciences	47%	40%	46%	59%	55%
Manufacturing	NR	NR	76%	79%	NR
Mathematics	50%	35%	45%	53%	51%
Military Science	NR	NR	NR	77%	NR
Miscellaneous	55%	66%	63%	74%	61%
Nonsubject Specific	64%	NR	32%	89%	91%
Physical, Health, and Safety Education	56%	68%	57%	64%	64%
Public, Protective, and Government Services	58%	63%	71%	64%	76%
Religious Education and Theology	NR	NR	92%	81%	NR
Social Sciences and History	50%	39%	52%	62%	57%
Transportation, Distribution, and Logistics	NR	NR	78%	91%	NR
Total	**51%**	**50%**	**51%**	**60%**	**58%**

Note: Data are not reported (NR) if there were less than 25 virtual enrollments for that cell.

Table C10. *2018-19 Number and Percentage of Virtual Enrollments with Pass Rates by Subject Area and Student Sex*

Subject Area	# of Male Enrolls	# of Female Enrolls	% of Male Enrolls	% of Female Enrolls	Male Pass Rate	Female Pass Rate
Agriculture, Food, and Natural Resources	335	625	0%	0%	70%	80%
Architecture and Construction	216	44	0%	0%	76%	95%
Business and Marketing	4,195	4,377	1%	1%	68%	69%
Communication and Audio/Visual Tech.	1,429	1,856	0%	1%	65%	68%
Computer and Information Sciences	6,656	4,454	2%	1%	60%	57%
Engineering and Technology	2,465	1,738	1%	1%	63%	60%
English Language and Literature	61,114	58,223	19%	18%	50%	53%
Fine and Performing Arts	18,768	21,205	6%	7%	57%	63%
Foreign Language and Literature	17,276	20,393	5%	6%	49%	58%
Health Care Sciences	1,230	2,840	0%	1%	45%	68%
Hospitality and Tourism	420	515	0%	0%	50%	66%
Human Services	342	1,155	0%	0%	80%	81%
Life and Physical Sciences	43,846	42,827	14%	13%	50%	53%
Manufacturing	64	10	0%	0%	78%	NR
Mathematics	56,070	54,314	18%	17%	48%	49%
Military Science	71	63	0%	0%	76%	75%
Miscellaneous	26,093	26,564	8%	8%	64%	67%
Nonsubject Specific	381	332	0%	0%	72%	75%
Physical, Health, and Safety Education	23,719	24,712	7%	8%	59%	63%
Public, Protective, and Gov. Services	825	1,249	0%	0%	61%	72%
Religious Education and Theology	64	86	0%	0%	80%	92%
Social Sciences and History	51,453	54,391	16%	17%	53%	57%
Transport., Distribution, and Logistics	98	27	0%	0%	84%	85%
Total	**317,130**	**322,000**	**100%**	**100%**	**53%**	**57%**

Note: Pass Rate data are not reported (NR) if there were less than 25 virtual enrollments for that cell.

Table C11. *2018-19 Number and Percentage of Virtual Enrollments with Pass Rate by Virtual Method*

Virtual Method	# of Enrolls	% of Enrolls	Pass Rate
Blended Learning	51,266	8%	49%
Digital Learning	57,092	9%	54%
Online Course	523,309	82%	55%
Missing	7,463	1%	54%
Total	**639,130**	**100%**	**55%**

Appendix – D Student Tables

Table D1. *2018-19 Number of Virtual Students with Percent Year over Year Change*

Grade Level	# of Students	% of Students	% Change from 17-18
K	1,085	1%	21%
1	1,278	1%	36%
2	1,324	1%	18%
3	1,416	1%	23%
4	1,429	1%	14%
5	1,732	1%	23%
6	2,848	2%	21%
7	3,319	3%	-3%
8	4,429	4%	-4%
9	16,611	14%	3%
10	21,631	18%	6%
11	25,117	21%	8%
12	39,634	33%	7%
Total	**120,669**	**100%**	**7%**

Note: Because some students took courses across multiple grade levels, a student may be counted toward more than one grade level. The total row, however, reflects the number of unique students.

Table D2. *2018-19 Number and Percentage of Students and Virtual Enrollments with Pass Rate by Student Sex*

Student Sex	# of Students	% of Students	# of Enrolls	% of Enrolls	Pass Rate
Males	59,593	49%	317,130	50%	53%
Females	61,089	51%	322,000	50%	57%
Total	**120,669**	**100%**	**639,130**	**100%**	**55%**

Note: A few students had enrollments where their gender was listed as male on some, but female on others.

Table D3. *2018-19 Number and Percentage of Students and Virtual Enrollments with Pass Rate by Race/Ethnicity*

Race/Ethnicity	# of Students	% of Students	# of Enrolls	% of Enrolls	Pass Rate
African-American or Black	20,073	17%	123,688	19%	43%
American Indian or Alaska Native	1,073	1%	5,375	1%	52%
Asian	2,279	2%	7,775	1%	76%
Hispanic or Latino	9,287	8%	52,457	8%	49%
Native Hawaiian or Pacific Islander	115	0%	445	0%	57%
White	82,103	68%	413,892	65%	59%
Two or More Races	5,280	4%	31,930	5%	51%
Unknown	1,069	1%	3,568	1%	34%
Total	**120,669**	**100%**	**639,130**	**100%**	**55%**

Note: The total number of students exceeds the 120,669 number because a few students had enrollments across multiple schools where one school listed the student as one race/ethnicity, but the other school reported a different value. The unique total was used to emphasize the true number of virtual students.

Table D4. *2018-19 Number and Percentage of Students and Virtual Enrollments with Pass Rate by Poverty Status*

Poverty Status	# of Students	% of Students	# of Enrolls	% of Enrolls	Pass Rate
Yes	68,666	57%	419,462	66%	48%
No	51,870	43%	219,105	34%	69%
Unknown	133	0%	563	0%	6%
Total	**120,669**	**100%**	**639,130**	**100%**	**55%**

Note: The total number of students exceeds the 120,669 number because a few students had enrollments across multiple schools where one school listed the student under a specific poverty status, but the other school left the status unknown. The unique total was used to emphasize the true number of virtual students.

Table D5. *2018-19 Pass Rate Comparison for Virtual Learners for Their Virtual and Non-Virtual Courses by Poverty Status*

Poverty Status	Virtual Pass Rate	Non-Virtual Pass Rate	Virtual Pass Rate – Non-Virtual Pass Rate
Yes	48%	68%	-20%
No	69%	85%	-16%
Unknown	6%	21%	-15%
Total	**55%**	**76%**	**-21%**

__Table D6__. 2018-19 Percentage of Virtual Learners and Virtual Enrollments in Poverty with Pass Rate by Virtual Type

Virtual Type	% of Virtual Learners in Poverty	% of Virtual Enrolls from Learners in Poverty	Pass Rate for Virtual Learners in Poverty
Full-Time Virtual	67%	69%	43%
Part-Time Virtual	54%	63%	52%
Total	**57%**	**66%**	**48%**

__Table D7__. 2018-19 Number and Percentage of Students and Virtual Enrollments with Pass Rate by Special Education Status

Special Education Status	# of Students	% of Students	# of Enrolls	% of Enrolls	Pass Rate
Yes	13,864	11%	83,328	13%	48%
No	106,031	88%	552,234	86%	56%
Unknown	1,069	1%	3,568	1%	34%
Total	**120,669**	**100%**	**639,130**	**100%**	**55%**

Note: The total number of students exceeds the 120,669 number because some students had enrollments across multiple schools where one school listed the student under a specific special education status, but the other school left the status unknown. The unique total was used to emphasize the true number of virtual students.

__Table D8__. 2018-19 Number and Percentage of Students and Virtual Enrollments by Full- or Part-Time Type

Virtual Type	# of Students	% of Students	# of Enrolls	% of Enrolls	Pass Rate
Full-Time - Virtual	31,176	26%	295,234	46%	49%
Part-Time - Virtual	91,181	76%	343,896	54%	60%
Total	**120,669**	**100%**	**639,130**	**100%**	**55%**

__Table D9__. 2018-19 Pass Rate Comparison for Full- and Part-Time Virtual Learners

Virtual Type	Virtual Pass Rate	Non-Virtual Pass Rate
Full-Time Virtual	49%	NA
Part-Time Virtual	60%	76%
Total	**55%**	**76%**

__Table D10__. 2018-19 Number and Percentage of Students and Virtual Enrollments with Pass Rate by Non-Virtual (NV) Performance (Minimum of 3 Non-Virtual Enrollments)

Non-Virtual Performance	# of Students	% of Students	# of Enrolls	% of Enrolls	Pass Rate
Passed All NV Courses	35,490	47%	83,557	35%	82%
Did Not Pass 1 or 2 NV Courses	14,398	19%	43,049	18%	67%
Did Not Pass 3 or More NV Courses	25,278	34%	114,340	47%	39%

Total	**75,166**	**100%**	**240,946**	**100%**	**59%**

Table D11. *2018-19 Number and Percentage of Students and Virtual Enrollments by Virtual Course Performance*

Virtual Course Performance	# of Students	% of Students	# of Enrolls	% of Enrolls	Pass Rate
Passed All	59,188	49%	196,323	31%	100%
Passed Some, But Not All	33,818	28%	305,701	48%	50%
Didn't Pass Any	27,663	23%	137,106	21%	0%
Total	**120,669**	**100%**	**639,130**	**100%**	**55%**

Table D12. *2018-19 Number and Percentage of Virtual Students Who Did Not Pass Any Virtual Courses by the Number of Virtual Courses They Took*

# of Virtual Courses Not Passed	# of Students	% of Students
1 to 2	11,367	41%
3 to 4	3,737	14%
5 to 6	5,105	18%
7 to 8	2,310	8%
9 to 10	1,366	5%
11+	3,778	14%
Total	**27,663**	**100%**

Table D13. *2018-19 Number and Percentage of Students and Virtual Enrollments with Pass Rate by Virtual Usage*

Virtual Usage	# of Students	% of Students	# of Enrolls	% of Enrolls	Pass Rate
1 to 2 Virtual Courses	53,619	44%	76,061	12%	76%
3 to 4 Virtual Courses	16,516	14%	57,254	9%	64%
5 or More Virtual Courses	50,534	42%	505,815	79%	51%
Total	**120,669**	**100%**	**639,130**	**100%**	**55%**

Appendix – E State Assessment Measures

Table E1. 2018-19 Comparison of Virtual and State Pass Rates on 11th Grade State Assessment Measures

Assessment Measure	Virtual Pass Rate	State Pass Rate
Evidence-Based Reading & Writing (SAT)	44%	55%
Mathematics (SAT)	25%	36%
Science (M-STEP)	NR	NR
Social Studies (M-STEP)	37%	47%

Note: Statewide assessment data were available from the MI School Data Portal
https://www.mischooldata.org/DistrictSchoolProfiles2/AssessmentResults/AssessmentHighSchoolProficiency.aspx.

Table E2. 2018-19 State Assessment Proficiency Rates for Virtual Learners with Three or More Non-Virtual (NV) Enrollments by Non-Virtual Performance

Assessment	Pass All NV Pass Rate	Did Not Pass 1 or 2 NV Pass Rate	Did Not Pass 3 or More NV Pass Rate
Evidence-Based Reading & Writing (SAT)	66%	38%	24%
Mathematics (SAT)	45%	18%	9%
Science (M-STEP)	NR	NR	NR
Social Studies (M-STEP)	54%	32%	22%

Table E3. 2018-19 State Assessment Proficiency Rates for Virtual Learners by Poverty Status

Assessment	Virt. Learners in Poverty	Virt. Learners Not in Poverty	All Virtual Learners
Evidence-Based Reading & Writing (SAT)	29%	60%	44%
Mathematics (SAT)	12%	39%	25%
Science (M-STEP)	NR	NR	NR
Social Studies (M-STEP)	24%	51%	37%

Table E4. 2018-19 State Assessment Proficiency Rates for Virtual Learners by Virtual Type

Assessment	Part-Time	Full-Time	All Virtual
Evidence-Based Reading & Writing (SAT)	46%	30%	44%
Mathematics (SAT)	27%	8%	25%
Science (M-STEP)	NR	NR	NR
Social Studies (M-STEP)	39%	25%	37%

Appendix – F Completion Status Tables

Table F1. *2018-19 Number and Percentage of Virtual Enrollments by Completion Status*

Completion Status	# of Enrolls	% of Enrolls
Audited (No Credit Issued)	10,957	2%
Completed/Failed	99,927	16%
Completed/Passed	**350,594**	**55%**
Incomplete	65,162	10%
Ongoing Enrolled	42	0%
Testing Out	112	0%
Withdrawn/Exited	64,013	10%
Withdrawn/Failing	16,334	3%
Withdrawn/Passing	31,989	5%
Total	**639,130**	**100%**

Table F2. *2018-19 Percentage of Virtual Enrollments by Completion Status and Entity Type*

Completion Status	ISD School % of Enrolls	LEA School % of Enrolls	LEA UEP % of Enrolls	PSA School % of Enrolls
Audited (No Credit Issued)	0%	3%	0%	1%
Completed/Failed	3%	16%	6%	16%
Completed/Passed	**60%**	**58%**	**69%**	**49%**
Incomplete	3%	10%	2%	11%
Ongoing Enrolled	0%	0%	0%	0%
Testing Out	0%	0%	0%	0%
Withdrawn/Exited	28%	9%	19%	10%
Withdrawn/Failing	0%	1%	0%	6%
Withdrawn/Passing	5%	4%	2%	7%
Total	**100%**	**100%**	**100%**	**100%**

Note: UEP = Unique Education Provider

Table F3. 2018-19 Number and Percentage of Full-Time Virtual Enrollments by Completion Status

Completion Status	# of Enrolls	% of Enrolls
Audited (No Credit Issued)	6,370	2%
Completed/Failed	44,470	15%
Completed/Passed	**145,494**	**49%**
Incomplete	35,678	12%
Testing Out	40	0%
Withdrawn/Exited	27,852	9%
Withdrawn/Failing	13,948	5%
Withdrawn/Passing	21,382	7%
Total	**295,234**	**100%**

Table F4. 2018-19 Number and Percentage of Part-Time Virtual Enrollments by Completion Status

Completion Status	# of Enrolls	% of Enrolls
Audited (No Credit Issued)	4,587	1%
Completed/Failed	55,457	16%
Completed/Passed	**205,100**	**60%**
Incomplete	29,484	9%
Ongoing Enrolled	42	0%
Testing Out	72	0%
Withdrawn/Exited	36,161	11%
Withdrawn/Failing	2,386	1%
Withdrawn/Passing	10,607	3%
Total	**343,896**	**100%**

Table F5. 2018-19 Percentage of Virtual Enrollments by Completion Status and School Emphasis

Completion Status	Alt Ed % of Enrolls	Gen Ed % of Enrolls	Special Ed % of Enrolls
Audited (No Credit Issued)	3%	0%	0%
Completed/Failed	16%	16%	7%
Completed/Passed	**42%**	**65%**	**52%**
Incomplete	20%	3%	1%
Ongoing Enrolled	0%	0%	0%
Testing Out	0%	0%	0%
Withdrawn/Exited	14%	7%	41%
Withdrawn/Failing	1%	3%	0%
Withdrawn/Passing	5%	5%	0%
Total	**100%**	**100%**	**100%**

Note: Reportable Programs and Vocational/CTE are not reporting on here because each had less than 10 schools.

Table F6. 2018-19 Percentage of Virtual Enrollments by Completion Status and Core Subject Area

Completion Status	English % of Enrolls	Math % of Enrolls	Science % of Enrolls	Social Sci % of Enrolls
Audited (No Credit Issued)	2%	2%	2%	2%
Completed/Failed	17%	18%	17%	16%
Completed/Passed	**51%**	**49%**	**51%**	**55%**
Incomplete	11%	12%	12%	11%
Ongoing Enrolled	0%	0%	0%	0%
Testing Out	0%	0%	0%	0%
Withdrawn/Exited	10%	11%	10%	10%
Withdrawn/Failing	3%	3%	3%	2%
Withdrawn/Passing	6%	5%	4%	4%
Total	**100%**	**100%**	**100%**	**100%**

Table F7. 2018-19 Percentage of Virtual Enrollments by Completion Status and Student Sex

Completion Status	Males % of Enrolls	Females % of Enrolls
Audited (No Credit Issued)	2%	2%
Completed/Failed	17%	14%
Completed/Passed	**53%**	**57%**
Incomplete	10%	10%
Ongoing Enrolled	0%	0%
Testing Out	0%	0%
Withdrawn/Exited	11%	9%
Withdrawn/Failing	3%	2%
Withdrawn/Passing	5%	5%

Total	100%	100%

Table F8. 2018-19 Percentage of Virtual Enrollments by Completion Status and Race / Ethnicity

Completion Status	African American % of Enrolls	American Indian or Alaska Native % of Enrolls	Asian % of Enrolls	Hispanic or Latino % of Enrolls	White % of Enrolls	Two or More Races % of Enrolls
Audited (No Credit Issued)	4%	2%	1%	1%	1%	1%
Completed/Failed	20%	17%	8%	14%	15%	16%
Completed/Passed	**43%**	**52%**	**76%**	**49%**	**59%**	**51%**
Incomplete	12%	11%	3%	15%	9%	11%
Ongoing Enrolled	0%	0%	0%	0%	0%	0%
Testing Out	0%	0%	0%	0%	0%	0%
Withdrawn/Exited	11%	13%	5%	12%	9%	11%
Withdrawn/Failing	3%	2%	2%	3%	2%	4%
Withdrawn/Passing	7%	4%	5%	5%	4%	6%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Note: Only known Race /Ethnicities with 1,000 or more students are reported in the table.

Table F9. 2018-19 Percentage of Virtual Enrollments by Completion Status and Poverty Status

Completion Status	In Poverty % of Enrolls	Not In Poverty % of Enrolls	Unknown % of Enrolls
Audited (No Credit Issued)	2%	1%	0%
Completed/Failed	18%	11%	3%
Completed/Passed	**48%**	**69%**	**6%**
Incomplete	12%	7%	18%
Ongoing Enrolled	0%	0%	0%
Testing Out	0%	0%	0%
Withdrawn/Exited	12%	7%	40%
Withdrawn/Failing	3%	1%	9%
Withdrawn/Passing	6%	4%	23%
Total	**100%**	**100%**	**100%**

Table F10*. 2018-19 Percentage of Part-Time Virtual Enrollments by Completion Status and Special Education Status*

Completion Status	In Special Ed % of Enrolls	Not In Special Ed % of Enrolls	Unknown % of Enrolls
Audited (No Credit Issued)	1%	2%	3%
Completed/Failed	20%	15%	8%
Completed/Passed	**48%**	**56%**	**34%**
Incomplete	8%	10%	23%
Ongoing Enrolled	0%	0%	0%
Testing Out	0%	0%	0%
Withdrawn/Exited	12%	10%	19%
Withdrawn/Failing	4%	2%	4%
Withdrawn/Passing	6%	5%	10%
Total	**100%**	**100%**	**100%**

Table F11*. 2018-19 Percentage of Virtual Enrollments by Completion Status for Students Who Did Not Pass Any of Their Virtual Courses*

Completion Status	Took At Least One Virtual Enrollment % of Enrolls	Took 11 or More Virtual Enrollments % of Enrolls
Audited (No Credit Issued)	4%	4%
Completed/Failed	28%	30%
Completed/Passed	**0%**	**0%**
Incomplete	20%	23%
Ongoing Enrolled	0%	0%
Testing Out	0%	0%
Withdrawn/Exited	28%	22%
Withdrawn/Failing	7%	7%
Withdrawn/Passing	12%	15%
Total	**100%**	**100%**

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