

# MICHIGAN'S K-12 VIRTUAL LEARNING EFFECTIVENESS REPORT

2019-20

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MICHIGAN VIRTUAL LEARNING  
**RESEARCH INSTITUTE**

[MICHIGANVIRTUAL.ORG/RESEARCH](https://michiganvirtual.org/research)

## About Michigan Virtual Learning Research Institute

In 2012, the Governor and Michigan Legislature passed legislation requiring *Michigan Virtual*<sup>™</sup>, formally *Michigan Virtual University*<sup>®</sup>, to establish a center for online learning research and innovation. Known as *Michigan Virtual Learning Research Institute*<sup>®</sup> (*MVLRI*<sup>®</sup>), 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*<sup>®</sup> and *MVLRI*.

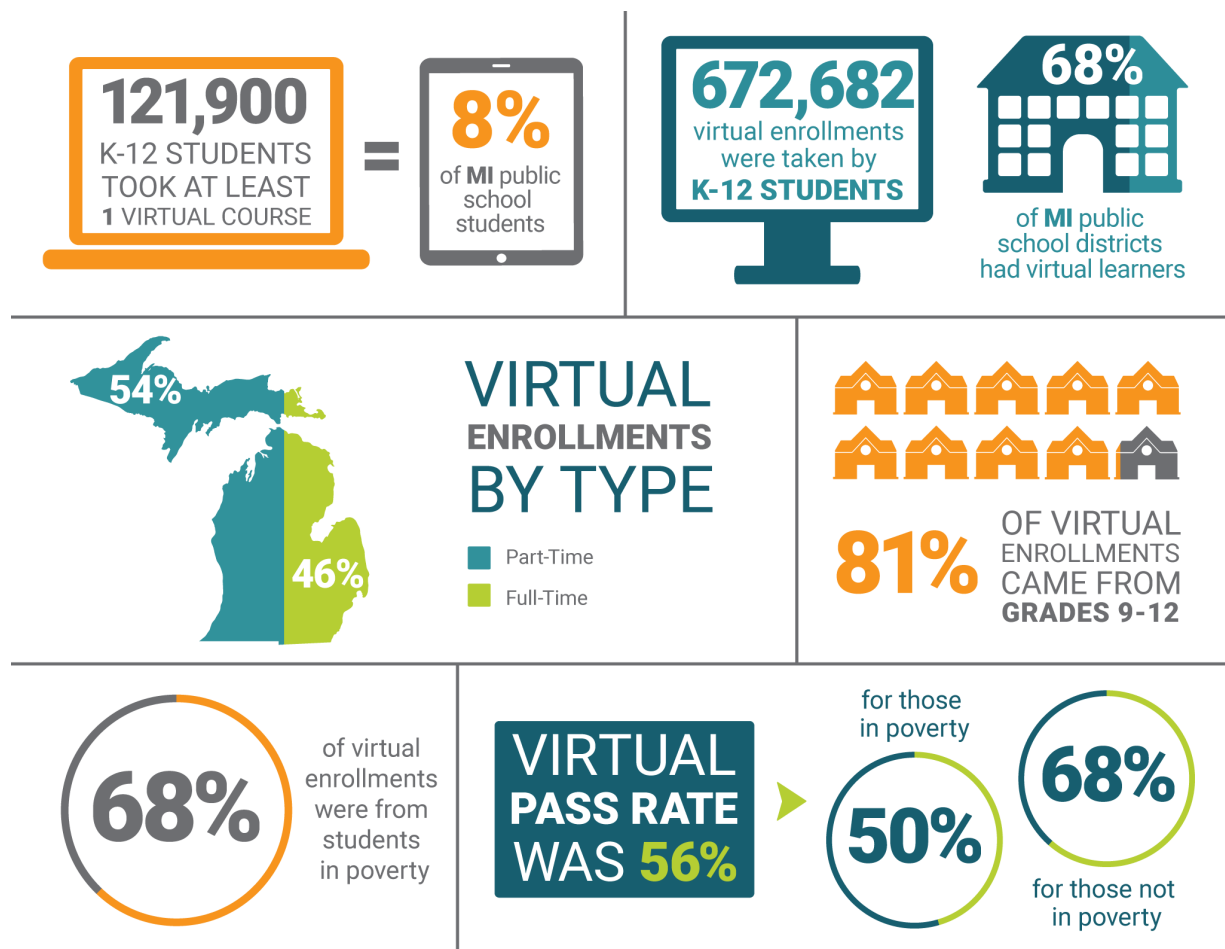
## Acknowledgements

The author would like to thank CEPI and the MDE for their time, effort, and support for this project.

## Executive Summary

Based on pupil completion and performance data reported by public schools to MDE or CEPI, this report highlights 2019-20 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—121,900 students—took virtual courses in 2019-20. These students generated over 672,000 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. Over 80% of virtual enrollments came from high school students, and the most highly enrolled in virtual courses were those required for high school graduation. Sixty-eight percent of the virtual enrollments were from students who were in poverty. The overall pass rate for virtual courses (56%) was up one percentage point from the past three years; however, there remains considerable variation in student success.



**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 eighth edition of this annual publication and completes 10 years of data on K-12 virtual learning in Michigan. Past reports are available through the *Michigan Virtual* website.<sup>1</sup>

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. 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

- 613 school districts reported at least one virtual enrollment. This represented 68% of Michigan school districts.
- 57% 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.
- 87% of schools with virtual learning were LEA schools.
- LEA schools accounted for 61% of the virtual enrollments; PSA schools generated 37% 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 (58).
- 98% of virtual enrollments came from schools with 100 or more virtual enrollments.
- About 81% of virtual enrollments came from students in grades 9-12.
- 34% of virtual enrollments came from suburban schools, the most of any locale.
- Schools with a general education emphasis had a 68% virtual pass rate, outperforming those with an alternative education emphasis, which had a pass rate of 43%.
- 28% of schools had a school-wide virtual pass rate of 90% to 100%.

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<sup>1</sup> *Past Effectiveness Reports* are available for free at <https://michiganvirtual.org/effectiveness-reports/>

## Number of Districts and Schools

For the 2019-20 school year, 613 districts reported having at least one virtual enrollment. This represented 68% of the 901 Michigan public school districts for the year. See the following MI School Data Report for a breakdown of the district count - <https://bit.ly/35UPRxs>.

Within those districts, 1,225 schools reported virtual enrollments, the same number as the prior year. Of the 1,225 schools reporting virtual enrollments in 2018-2019 (the prior year), 145 of them (12%) did not report any virtual enrollments in 2019-2020 (this year). Those schools had accounted for a total of 18,333 virtual enrollments in 2018-2019. There were also 145 schools that reported virtual enrollments in 2019-2020 but had not reported any the prior year. These schools added 13,430 virtual enrollments this year.

That means 88% (1,080) of schools in the dataset reported virtual enrollments in both 2018-19 and 2019-2020. A total of 554 schools reported increased virtual enrollments (125,574 more) whereas 519 schools reported decreases in virtual enrollments (87,119 fewer). Seven schools reported the same number both years. Taken together, the annual growth in the number of virtual enrollments is due to increased enrollments from schools with pre-existing virtual programs rather than the addition of new schools with virtual learning programs.

## By Grade Level

Across the 1,225 schools, 672,682 virtual enrollments were taken. Students in 12<sup>th</sup> grade enrolled in the most virtual courses (190,850), representing approximately 28% of all virtual enrollments. The overall pass rate for virtual enrollments was 56%, a one percent increase over the prior three years. See [Table F1](#) for a more specific breakdown of all the completion statuses. This ranged from a high of 65% in 4<sup>th</sup> grade to a low of 42% in 9<sup>th</sup> grade. See [Table B1](#) for more information. Consistent with findings from previous years, virtual learners passed their virtual courses at a lower rate (56%) than they passed their non-virtual courses (78%). This gap is approximately the same as the prior year. See [Table B2](#).

## By School-Level Virtual Pass Rate

Of the 1,225 schools with virtual enrollments, 341 or 28% had school-level virtual pass rates of 90% to 100%. More than half of schools (56%) had virtual pass rates of 70% or better. See [Table B3](#).

## By Entity Type

LEA schools (61%) and PSA schools (37%) accounted for almost all the virtual enrollments. Virtual enrollments came from 1,068 (87%) LEA schools while only 116 (9%) of the schools were PSAs. See [Table B4](#). LEA schools had a higher pass rate (57%) than PSA schools (53%). 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 (77) dropped by two from the prior year. Fifty-eight of the 77 full-time virtual schools (75%) were LEA schools. PSA schools (16) accounted for 21% of the full-time virtual schools. See [Table B6](#). Forty-two percent of students attending full-time virtual

schools did so at LEA schools with 58% attending a PSA school. Unlike the prior year, there was a sizable performance difference between these two types. LEA schools had a virtual pass rate of 42% (-9% from the prior year), and PSAs had a virtual pass rate of 58% (+9% from the prior year). See [Table B7](#) and [Table F3](#). In total, 46% of virtual enrollments came from cyber or full-time virtual schools – the same percentage as the prior year.

A quick note about full-time virtual schools. Historically, full-time virtual schools have only provided students with 100% of their learning online. Thus, it was safe to designate all enrollments from such a school as being part of a full-time virtual program. Over the last few years, however, LEAs have started to add full-time virtual options to their offerings. In some cases, this is as a separate school, which makes it analogous to the cyber schools. However, increasingly, it seems that schools are offering multiple forms of online learning from the same building code. This can be seen in the [Education Entity Master](#) where schools can report educational settings including “Full Virtual,” “Face Virtual,” and “Supplemental Virtual.” See page 16 of the [Educational Entity Master Glossary for more information](#) on these field values. This means that some schools report various forms of virtual learning from a single building code. In the 2019-20 dataset, 98% of the virtual enrollments reported by schools with the full-time virtual designation came from students who only had virtual enrollments reported by the school. This rate will be something worth tracking in subsequent years to see if that figure moves demonstrably.

### By Part-Time Virtual Schools

About 94% of the schools offering virtual learning do so to supplement their face-to-face course offerings. These 1,148 schools, referred to in this report as part-time virtual schools, were predominantly LEA schools (88%). See [Table B8](#). Eighty-seven percent of the part-time virtual students were enrolled through LEA schools and 11% through PSA schools. LEA schools accounted for almost 295,000 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 63% whereas PSA schools had a pass rate of 38%. Overall, the pass rate for the part-time virtual schools (59%) was over seven percentage points higher than the rate for the full-time virtual schools (52%). See [Table B9](#) and [Table F4](#).

### By School Emphasis

Three out of four schools with virtual learning were designated as General Education and produced 349,674 (52%) of the virtual enrollments. Schools with Alternative Education as their emphasis accounted for 317,720 (47%) 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 68% virtual pass rate, whereas Alternative Education schools had a 43% virtual pass rate (see [Table B11](#) and [Table F5](#)), though this varied by entity type. LEA schools, for instance, had a 73% virtual pass rate for General Education schools and a 45% virtual pass rate for Alternative Education schools. See [Table B12](#).

### By Number of Virtual Enrollments

Over half of schools with virtual enrollments (57%) had 100 or more virtual enrollments. These schools were responsible for 98% of the virtual enrollments (656,837). As has been observed in



previous years, schools with less than 10 virtual enrollments were the next highest percentage of schools with 14%; however, they generated less than .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 37% 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 16% 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 36% 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 34%. All four locales (urban, suburban, town, and rural) 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 were the second most likely scenario. See [Table B16](#). Virtual pass rates varied by locale with town schools having the highest virtual pass rate at 60% and city having the lowest at 47%. Both city schools (11%) and those not specified (14%) had the highest percentage of schools with pass rates less than 20%. See [Tables B17](#) and [B18](#).

### By School Poverty Levels

The overall level of poverty for a school yielded insightful analyses. Schools were categorized into one of four categories based on the percentage of all learners at the school (not just virtual learners) that were in poverty:

- Low Poverty ( $\leq 25\%$ )
- Mid-Low Poverty ( $> 25\%$  to  $\leq 50\%$ )
- Mid-High Poverty ( $> 50\%$  to  $\leq 75\%$ )
- High Poverty ( $> 75\%$ )

In comparison to all schools in Michigan in each category, the percentage of schools with virtual learners was consistent across Low (38%), Mid-Low (39%), and Mid-High (38%) Poverty schools. In contrast, only about 27% of the state's High Poverty schools had virtual learners. See [Table B19](#).

While High Poverty schools represented only 20% of schools with virtual programs (241), they accounted for 39% of the virtual enrollments. Mid-High Poverty schools accounted for 36% of the enrollments. The pass virtual pass rate for Low Poverty schools was 66% compared to 50% for High Poverty schools. See [Table B20](#).

## Courses

### Fast Facts

- 672,682 virtual enrollments were taken by Michigan K-12 students; the overall pass rate for virtual enrollments was 56%.
- Virtual enrollments were spread across 964 different course titles.
- 67% 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—Overview, and World History and Geography
- The virtual pass rates for each core subject were:
  - English Language and Literature: 54%
  - Mathematics: 52%
  - Life and Physical Sciences: 54%
  - Social Sciences and History: 58%
- 31 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 83% 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 8% of the virtual enrollments.



## Number of Courses

The 672,682 virtual enrollments came from 964 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 129,014 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 51% in Miscellaneous to a high of 58% for Social Studies and History as well as Fine and Performing Arts. 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. Exceptions to this were Nonsubject Specific and Architecture and Construction. See [Table C2](#).

## Highest Virtual Enrollment Courses

For English Language and Literature, the most highly enrolled in virtual courses were 9<sup>th</sup>, 10<sup>th</sup>, 11<sup>th</sup>, and 12<sup>th</sup> grade English/Language Arts. Of those four, the pass rate was lowest for 9<sup>th</sup> grade English/Language Arts (41%) and consistently rose for each subsequent grade level to finish at 62% for 12<sup>th</sup> grade English/Language Arts. See [Table C3](#).

In Mathematics, Geometry, Algebra II, and Algebra I had the most enrollments. The pass rate across the top 10 most enrolled-in virtual mathematics courses ranged from a low of 39% for Algebra I, Algebra I – Part 1, and Pre-Algebra to a high of 68% 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 in Biology. Life and Physical Sciences-Other had the lowest pass rate (39%) of those in the top 10; the highest was Environmental Science at 60%. See [Table C5](#).

For Social Sciences and History, the four course titles of U.S. History–Comprehensive, Economics, World History–Overview, and World History and Geography each yielded more than 10% of the virtual enrollments. Pass rates for the top 10 most enrolled in courses ranged from a low of 46% in U.S. History-Other to a high of 67% for Sociology. See [Table C6](#).

Thirty-one AP courses were taken virtually in 2019-20. AP Psychology was the most popular course accounting for 19% of the 3,778 AP enrollments. The pass rate for AP courses taken virtually was 86%. See [Table C7](#). The pass rate for non-virtual AP courses taken by virtual learners was 94%.

## Subject Area Enrollments by Locale

Course enrollment patterns were consistent across locales. For instance, Mathematics represented between 16% and 19% of the virtual enrollments for all (rural, town, suburban, city, and not specified) locales. The range was 2% (13% to 15%) for Life and Physical Sciences and 7% (14% to 21%) 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 44% for city schools to 59% for suburban schools. In Mathematics, pass rates ranged from 44% (city) to 54% (suburban and town). 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. Males had a 54% pass rate whereas females had a 58% pass rate. 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 pages 356 and 357 of the [Michigan Student Data System Collection Details Manual Version 4.0](#) available from [https://www.michigan.gov/documents/cepi/Collection\\_Details\\_SY19-20\\_652770\\_7.pdf](https://www.michigan.gov/documents/cepi/Collection_Details_SY19-20_652770_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 53%. Digital Learning also totaled 8% of the enrollments with a 52% pass rate. Online courses represented most of the enrollments (83%) and yielded a pass rate of 56%. See [Table C11](#).

## Students

### Fast Facts

- 121,900 K-12 students took at least one virtual course which represented 8% of Michigan public school students.
- 86% of virtual learners were in high school; 32% were seniors and 21% were juniors.
- 47% of virtual learners passed all their virtual courses. Twenty-one percent of virtual learners did not pass any of their virtual courses.
- Of the 25,780 students who did not pass any of their virtual courses, 41% took only one or two courses. Over 11,900 students took and did not pass five or more virtual courses with 3,228 students taking and not passing 11 or more virtual courses.
- Female students had a higher pass rate (58%) than did males (54%).
- Students in poverty made up the majority of virtual learners (59%) and virtual enrollments (68%). Students in poverty also had a lower pass rate (50% v. 68%).
- Part-time virtual learners had higher pass rates (59%) compared to full-time virtual learners (52%). This also included students in poverty (51% v. 49%).
- Students using special education services made up 12% 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 52% for those taking five or more.
- White students represented 68% of virtual students; African-Americans were 17%.

### By Grade Level

For the 2019-20 school year, 121,900 Michigan K-12 students, approximately 8% of students in the state, took at least one virtual course. This was a 1% increase in the number of virtual learners compared to what was reported for 2018-19. Only about 6% 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 86% of the virtual learners. About 32% of virtual learners were high school seniors and 21% were juniors. See [Table D1](#).

### By Student Sex

There were slightly more females (61,549) enrolled in virtual courses than males (60,367), though from a percentage perspective, each represented about half of the population. Females had a 4% higher pass rate (58% compared to males at 54%), 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 (74%) above 60%. See [Table D3](#) and [Table F8](#).

### By Poverty Status

Fifty-nine percent of virtual learners were classified as living in poverty. This is about 8% higher than the percentage of 2019-20 K-12 students statewide who were economically disadvantaged.

See [Student Enrollment Count Report](https://bit.ly/3lpt5E) available from <https://bit.ly/3lpt5E>. Students living in poverty took 68% of the virtual enrollments for the year. The pass rate for students in poverty (50%) was 18 percentage points lower than students who were not in poverty (68%). 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 70% pass rate in their non-virtual courses, 20 percentage points better than their virtual pass rate. Interestingly, students not in poverty had an 86% pass rate in their non-virtual courses, an improvement of 19 percentage points over their virtual pass rate. Thus, students in poverty had a slightly 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-nine percent of full-time virtual learners were in poverty compared to 55% of part-time virtual learners. The pass rate for full-time virtual learners in poverty was 49% compared to 51% for part-time virtual learners. See [Table D6](#).

About 6% of all Michigan K-12 students who attend Low Poverty schools were virtual learners. The percentage steadily climbed as the school's poverty level increased. Seven percent of the state's students in Mid-Low Poverty schools were virtual learners, and it was 10% for Mid-High. Eleven percent of students in High Poverty schools were taking courses online in the 2019-2020 school year. See [Table D7](#).

### By Special Education Status

Students using special education services made up 12% 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 (13.41%) for the 2019-20 school year. See the [Student Enrollment Counts Report](https://bit.ly/36mjSph) available from <https://bit.ly/36mjSph>. Students using special education services had a virtual pass rate of 50% compared to 57% for those who did not. See [Table D8](#) and [Table F10](#).

### By Full-Time or Part-Time

A little more than a quarter of students (32,976) were enrolled in cyber or full-time virtual schools. Students in these schools accounted for 306,495 or 46% of the virtual enrollments for the year. The pass rate for full-time virtual students was 52%. Three out of four virtual learning students were 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 59%. See [Table D9](#). This rate is about 19% lower than their pass rate in face-to-face courses (78%). See [Table D10](#).

### 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, 61% of virtual learners had at least three or more non-virtual enrollments. Of that group, 48% of students passed all their non-virtual courses, 20% did not pass one or two, and 32% 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 43%. See [Table D11](#).

### By Virtual Course Performance

Forty-seven percent of virtual learners passed every virtual enrollment they took. Twenty-one percent did not pass any of their virtual enrollments, and 32% passed some, but not all of their virtual enrollments. Students who passed all of their virtual courses were responsible for 30% of the virtual enrollments. Students with mixed success generated 52% of the enrollments, and students who did not pass any of their virtual courses contributed 19% of the virtual enrollments. These statistics are fairly similar to last year. See [Table D12](#).

For the students who did not pass any of their virtual courses, 41% only took one or two virtual courses. On the other hand, 11,932 students did not pass five or more virtual courses, and 3,228 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. Roughly half of these students came from part-time virtual programs. Over 540 students were using special education services (17%) and 2,728 of these students (85%) were in poverty. See [Table D13](#) 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, 41% had a “Withdrawn” status (exited, failing, or passing) and another 21% were classified as “Incomplete.” For those taking 11 or more virtual courses, 35% had a “Withdrawn” status and 20% were marked “Incomplete.” In each case, only 27% and 32% 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 63% for those taking three to four virtual courses and a pass rate of 52% for students taking five or more virtual courses. About 42% of students fell under the description of taking one or two virtual courses; however, 44% were found to have taken five or more virtual courses during the year. See [Table D14](#).

## State Assessment

### Fast Facts

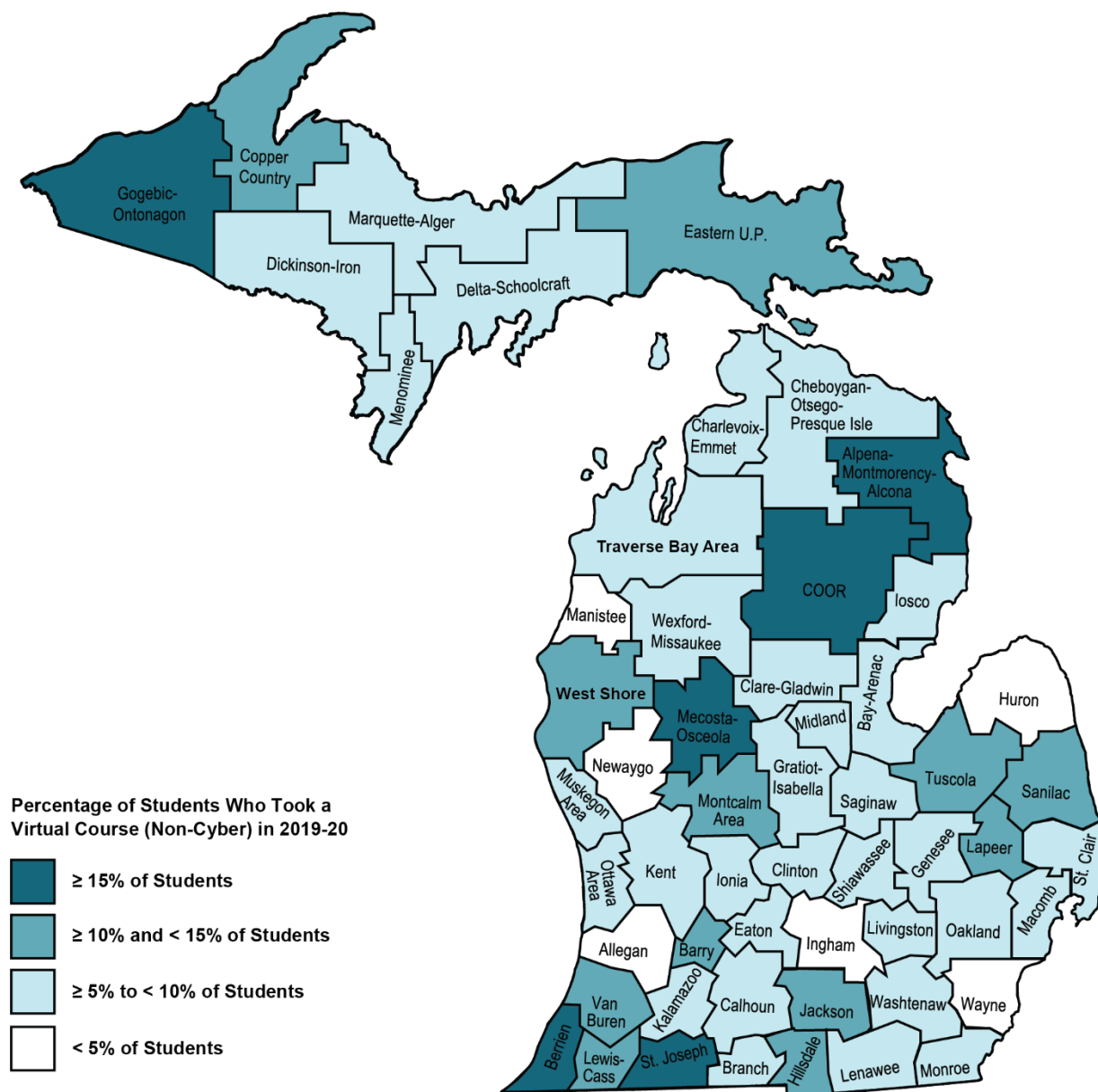
- State assessments for 2019-2020 were suspended due to the COVID-19 pandemic.

Annual state assessments were not administered for the 2019-2020 school year due to the COVID-19 pandemic closures. As a result, no data exists to conduct such analyses for this year.



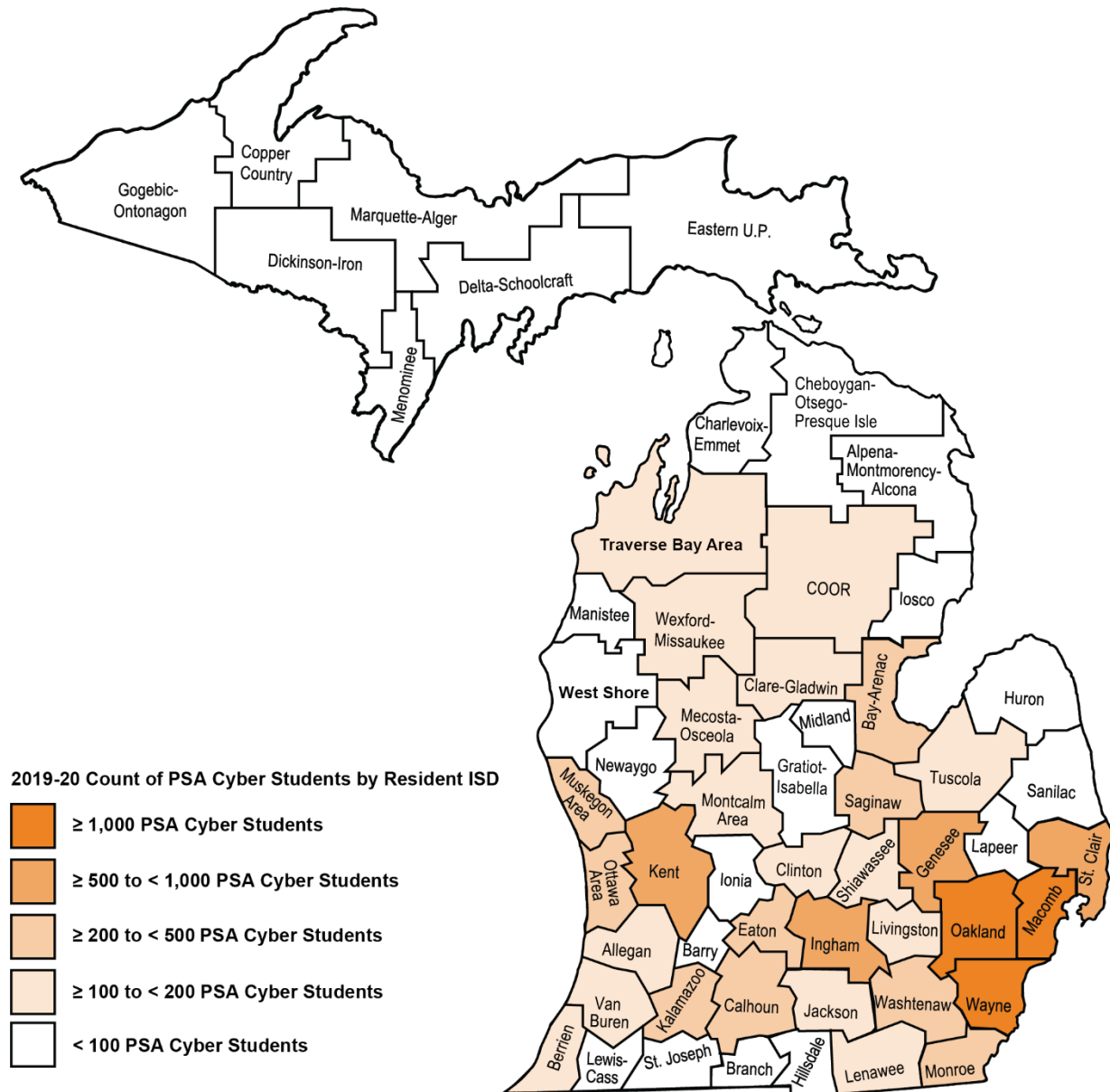
## Maps

Alpena-Montmorency-Alcona, Berrien, COOR, Gogebic-Ontonagon, Mecosta-Osceola, and St. Joseph ISDs/RESAs had at least 15% of students in their service areas take a virtual course in 2019-20. In total, there were 18 ISDs/RESA with 10% or more of the students taking virtual courses. See Figure 2.



**Figure 2.** 2019-20 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, Ingham, and St. Clair County ISDs/RESAs each had between 500 and less than 1,000 students from their area attending PSA cyber schools. See Figure 3.



**Figure 3.** 2019-20 Count of PSA Cyber School Students by Resident ISD

## Conclusion

This year's report represents the 10<sup>th</sup> 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 and virtual enrollments continued to grow. The number of schools remained constant, but the virtual pass rate rose for the first time in the last 4 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%
2019-20	121,900	672,682	1,225	56%

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 11,900 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 540 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 (32%) and more than 50 students (38%). 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 one in five had between 26 and 50 courses, and 14% of the schools had students in more than 50 different virtual courses.
- *LEA and PSA schools can offer successful virtual programs* – Over 45 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 80 city and 80 town schools with virtual pass rates of 80% or higher. There were over 175 for suburban locales, and 199 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 540+ schools. Consider that the pass rate for African-American or Black students was 86% in these schools (compared to 45% in the overall virtual population) and the gap between it and the White virtual pass rate in these schools dropped to 4% compared to 15% in the overall virtual population. For each known race/ethnicity, the virtual pass rates were above 80%.
- *Students in poverty are succeeding in these virtual programs, but it is quite difficult* – Recall that across the entire state, students in poverty had a pass rate (50%) that was 18 percentage points lower than those virtual students who were not in poverty. For these 540+ schools, the virtual pass rate for students in poverty rose to 86% – much closer to the 92% virtual pass rate for the students in those schools who were not in poverty. Students in poverty continued to represent a large percentage of virtual learners (42%) and virtual enrollments (49%) in these schools, but quite a bit smaller than the 59% of virtual learners and 68% of virtual enrollments seen across all virtual programs across the state. Additionally, a school's overall poverty level was a strong predictor of virtual program success. Sixty-six percent of Low Poverty schools with virtual learners achieved virtual pass rates of 80% or higher virtual. It was 54% of the Mid-Low Poverty schools, 37% of Mid-High Poverty schools, and only 27% of High Poverty schools. While these 64 High Poverty schools showed it is possible, it is considerably rarer than it is for Low Poverty schools.
- *Both full- and part-time programs can run effective virtual programs, but success is rarer for full-time programs* – These 540+ schools show that 47% of part-time programs were able to yield schoolwide virtual pass rates of 80% or higher. It was more difficult for full-time programs to achieve similar success. Only nine of the 77 full-time programs (12%) reached the 80% pass rate mark.
- *Both general education and alternative education programs reached 80% school-wide virtual pass rates* – There were 494 general education schools in Michigan that achieved schoolwide virtual pass rates of 80% or higher. These 494 schools represented 54% of general education schools with virtual programs. For alternative programs, 45 schools reached this mark. As a percentage of alternative programs, it represented just 16% 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 540+ schools, there were 7,500 virtual learners who took a minimum of three virtual courses and had data for a minimum of three non-virtual courses. Eighty 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 free resources<sup>2</sup> 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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<sup>2</sup> The [free resources](https://michiganvirtual.org/resources/) are available at <https://michiganvirtual.org/resources/>

## Appendix A - Methodology

### COVID-19 Impact

Readers should note that the COVID-19 pandemic significantly disrupted school in this spring of this school year and likely impacted the data from the school year.

### About the Data

The data for this report came from the following sources:

- Michigan Student Data System – School Year 2019-2020;
- Educational Entity Master (EEM);
- Michigan Student Data System Teacher Student Data Link (TSDL) – Collection Year 2019-2020; and
- *Michigan's K-12 Virtual Learning Effectiveness Report, 2018-19* – Used for comparing this year's data with the 2018-19 school year. That report is available as a free download from <https://michiganvirtual.org/research/publications/michigans-k-12-virtual-learning-effectiveness-report-2018-19/>

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 356 of the *Michigan Student Data System Collection Details Manual Version 4.0* available from [https://www.michigan.gov/documents/cepi/Collection\\_Details\\_SY19-20\\_652770\\_7.pdf](https://www.michigan.gov/documents/cepi/Collection_Details_SY19-20_652770_7.pdf)). This strategy yielded 99% (664,380) 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% (1,112) 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% (2,331) 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 1% (4,859) 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*. Given these issues, reporting on *Michigan Virtual* students as a subset within the report ended with the 2017-18 report.

However, *Michigan Virtual's Annual Report: 2019-20*, available from <https://michiganvirtual.org/wp-content/uploads/2020/11/Annual-Report-2019-20.pdf>, does contain information on its student enrollments. For instance, data are provided on the number of students served (over 18,100), districts served (over 60% of LEA Districts), enrollments served (over 32,600) and its pass rate (77.8%). 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 350 of the [Michigan Student Data System Collection Details Manual Version 4.0](https://www.michigan.gov/documents/cepi/Collection_Details_SY19-20_652770_7.pdf) available from [https://www.michigan.gov/documents/cepi/Collection\\_Details\\_SY19-20\\_652770\\_7.pdf](https://www.michigan.gov/documents/cepi/Collection_Details_SY19-20_652770_7.pdf). Column one of Table A1 displays the various statuses reported by schools for the virtual enrollments.

**Table A1.** 2019-20 Number and Percentage of Virtual Enrollments by Completion Status

<b>Completion Status</b>	<b># of Enrolls</b>	<b>% of Enrolls</b>
Audited (No Credit Issued)	23,282	3%
Completed/Failed	102,548	15%
<b>Completed/Passed</b>	<b>374,107</b>	<b>56%</b>
Incomplete	70,274	10%
Ongoing Enrolled	13	0%
Testing Out	44	0%
Withdrawn/Exited	54,187	8%
Withdrawn/Failing	11,645	2%
Withdrawn/Passing	36,582	5%
<b>Total</b>	<b>672,682</b>	<b>100%</b>

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 2019-20 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" (8% 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 re-enrolled in a different course or whether it was too late for re-enrollment 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](https://nces.ed.gov/forum/sced.asp) available from <https://nces.ed.gov/forum/sced.asp>). 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, 50% of the students had 11 to 15 courses reported (including both virtual and non-virtual enrollments), but 20% 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.** 2019-20 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%	8%
6 to 10	29%	22%
11 to 15	46%	50%
16 to 20	9%	14%
21+	3%	6%
<b>Total</b>	<b>100%</b>	<b>100%</b>

## Appendix – B School Tables

**Table B1.** 2019-20 Count and Pass Rate of K-12 Virtual Enrollments by Grade Level

Grade Level	# of Enrolls	% of Enrolls	% Change	Pass Rate	% Change from 18-19
K	8,299	1%	-1%	60%	-14%
1	9,021	1%	-10%	64%	-5%
2	9,878	1%	-2%	62%	-7%
3	9,285	1%	-3%	60%	-12%
4	9,124	1%	-19%	65%	-6%
5	10,507	2%	-23%	64%	-3%
6	17,539	3%	-2%	62%	-3%
7	23,596	4%	3%	62%	-1%
8	32,051	5%	6%	60%	1%
9	100,016	15%	3%	42%	1%
10	125,511	19%	12%	49%	1%
11	127,005	19%	8%	56%	3%
12	190,850	28%	7%	63%	3%
<b>Total</b>	<b>672,682</b>	<b>100%</b>	<b>5%</b>	<b>56%</b>	<b>1%</b>

**Table B2.** 2019-20 Pass Rate Comparison for Virtual Learners for Their Virtual and Non-Virtual Courses

Grade Level	Virtual Pass Rate	Non-Virtual Pass Rate
K	60%	54%
1	64%	60%
2	62%	58%
3	60%	56%
4	65%	58%
5	64%	79%
6	62%	70%
7	62%	71%
8	60%	73%
9	42%	68%
10	49%	74%
11	56%	81%
12	63%	83%
<b>Total</b>	<b>56%</b>	<b>78%</b>

**Table B3.** 2019-20 Number and Percentage of Schools and Virtual Enrollments by School Pass Rate

School Pass Rate	# of Schools	% of Schools	# of Enrolls	% of Enrolls
0% to <10%	59	5%	20,970	3%
10% to <20%	24	2%	23,546	4%
20% to <30%	49	4%	46,203	7%
30% to <40%	68	6%	80,873	12%
40% to <50%	74	6%	94,379	14%
50% to <60%	111	9%	92,162	14%
60% to <70%	151	12%	133,540	20%
70% to <80%	146	12%	67,628	10%
80% to <90%	202	16%	62,356	9%
90% to 100%	341	28%	51,025	8%
<b>Total</b>	<b>1,225</b>	<b>100%</b>	<b>672,682</b>	<b>100%</b>

**Table B4.** 2019-20 Number and Percentage of Schools and Virtual Enrollments by Entity Type

Entity Type	# of Schools	% of Schools	# of Enrolls	% of Enrolls
ISD School	29	2%	9,069	1%
LEA School	1,068	87%	408,044	61%
LEA Unique Ed. Provider	12	1%	6,919	1%
PSA School	116	9%	248,650	37%
<b>Total</b>	<b>1,225</b>	<b>100%</b>	<b>672,682</b>	<b>100%</b>

**Table B5.** 2019-20 Virtual Pass Rate by Entity Type

Entity Type	Pass Count	# of Enrolls	Pass Rate
ISD School	4,699	9,069	52%
LEA School	233,025	408,044	57%
LEA Unique Ed. Provider	4,000	6,919	58%
PSA School	132,383	248,650	53%
<b>Total</b>	<b>374,107</b>	<b>672,682</b>	<b>56%</b>

**Table B6.** 2019-20 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	58	75%
LEA Unique Ed. Provider	2	3%
PSA School	16	21%
<b>Total</b>	<b>77</b>	<b>100%</b>

**Table B7.** 2019-20 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	13,756	42%	113,859	37%	42%
LEA Unique Ed. Provider	NR	NR	NR	NR	NR
PSA School	19,046	58%	191,528	62%	58%
<b>Total</b>	<b>32,976</b>	<b>100%</b>	<b>306,495</b>	<b>100%</b>	<b>52%</b>

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

**Table B8.** 2019-20 Number and Percentage of Schools with Part-Time (PT) Virtual Schools

Entity Type	# of PT Schools	% of PT Schools
ISD School	28	2%
LEA School	1,010	88%
LEA Unique Ed. Provider	10	1%
PSA School	100	9%
<b>Total</b>	<b>1,148</b>	<b>100%</b>

**Table B9.** 2019-20 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	1,634	2%	8,484	2%	50%
LEA School	78,848	87%	294,185	80%	63%
LEA Unique Ed. Provider	1,039	1%	6,396	2%	56%
PSA School	9,653	11%	57,122	16%	38%
<b>Total</b>	<b>90,403</b>	<b>100%</b>	<b>366,187</b>	<b>100%</b>	<b>59%</b>

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

**Table B10.** 2019-20 Number and Percentage of Schools and Virtual Enrollments by School Emphasis

School Emphasis	# of Schools	% of Schools	# of Enrolls	% of Enrolls
Alternative Education	289	24%	317,720	47%
General Education	920	75%	349,674	52%
Special Education	NR	NR	NR	NR
Vocational/CTE	NR	NR	NR	NR
<b>Total</b>	<b>1,225</b>	<b>100%</b>	<b>672,682</b>	<b>100%</b>

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



**Table B11.** 2019-20 Virtual Pass Rate by School Emphasis

School Emphasis	Pass Count	# of Enrolls	Pass Rate
Alternative Education	135,684	317,720	43%
General Education	236,559	349,674	68%
Special Education	NR	NR	NR
Vocational/CTE	NR	NR	NR
<b>Total</b>	<b>374,107</b>	<b>672,682</b>	<b>56%</b>

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

**Table B12.** 2019-20 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	57%	NR
LEA School	73%	45%
LEA Unique Ed. Provider	NR	NR
PSA School	62%	35%
<b>Total</b>	<b>68%</b>	<b>43%</b>

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

**Table B13.** 2019-20 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	176	14%	720	0%
10 to 19	77	6%	1,079	0%
20 to 29	64	5%	1,575	0%
30 to 39	44	4%	1,500	0%
40 to 49	27	2%	1,197	0%
50 to 59	30	2%	1,619	0%
60 to 69	25	2%	1,607	0%
70 to 79	29	2%	2,152	0%
80 to 89	23	2%	1,947	0%
90 to 99	26	2%	2,449	0%
100+	704	57%	656,837	98%
<b>Total</b>	<b>1,225</b>	<b>100%</b>	<b>672,682</b>	<b>100%</b>

**Table B14.** 2019-20 Percentage of Schools by Ratio of Virtual Courses to Student and School Pass Rate

<b>School Pass Rate</b>	<b>1 to 2 Virtual Courses/Learner</b>	<b>3 to 4 Virtual Courses/Learner</b>	<b>5+ Virtual Courses/Learner</b>
0% to <10%	6%	3%	6%
10% to <20%	0%	1%	5%
20% to <30%	1%	3%	9%
30% to <40%	2%	3%	12%
40% to <50%	2%	6%	11%
50% to <60%	6%	9%	13%
60% to <70%	8%	17%	12%
70% to <80%	15%	11%	9%
80% to <90%	21%	20%	8%
90% to 100%	37%	29%	16%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

**Table B15.** 2019-20 Number and Percentage of Schools and Virtual Enrollments by Locale

<b>Locale</b>	<b># of Schools</b>	<b>% of Schools</b>	<b># of Enrolls</b>	<b>% of Enrolls</b>
City	187	15%	135,054	20%
Not Specified	29	2%	36,497	5%
Rural	437	36%	164,722	24%
Suburban	374	31%	228,414	34%
Town	198	16%	107,995	16%
<b>Total</b>	<b>1,225</b>	<b>100%</b>	<b>672,682</b>	<b>100%</b>

**Table B16.** 2019-20 Percentage of Schools with Virtual Enrollments by Virtual Enrollment Totals and Locale

<b>Locale</b>	<b>1 to 24 Enrolls</b>	<b>25 to 49 Enrolls</b>	<b>50 to 74 Enrolls</b>	<b>75 to 99 Enrolls</b>	<b>100+ Enrolls</b>	<b>Total</b>
City	26%	13%	2%	5%	54%	100%
Not Specified	10%	0%	3%	0%	86%	100%
Rural	22%	9%	8%	7%	55%	100%
Suburban	26%	6%	4%	3%	60%	100%
Town	20%	8%	9%	5%	58%	100%

**Table B17.** 2019-20 Virtual Pass Rate by Locale

Locale	Pass Rate	% Change from 18-19
City	47%	-4%
Not Specified	52%	+2%
Rural	56%	+5%
Suburban	59%	-1%
Town	60%	+2%
<b>Total</b>	<b>56%</b>	<b>+1%</b>

**Table B18.** 2019-20 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	11%	12%	17%	17%	43%	100%
Not Specified	14%	17%	24%	24%	21%	100%
Rural	7%	8%	13%	27%	45%	100%
Suburban	6%	9%	16%	22%	47%	100%
Town	3%	10%	15%	31%	41%	100%

**Table B19.** 2019-20 Number and Percentage of Schools with Virtual Enrollments by School Poverty Levels

School Poverty Category	# of Virtual Schools	# of All MI Schools	% of Virtual Schools
Low Poverty (<=25%)	172	453	38%
Mid-Low Poverty (>25% to <=50%)	363	928	39%
Mid-High Poverty (>50% to <=75%)	443	1,167	38%
High Poverty (>75%)	241	898	27%
Missing	6	0	NA
<b>Total</b>	<b>1,225</b>	<b>3,446</b>	<b>36%</b>

Note: All Michigan K-12 schools with building codes were used to calculate the state figures.

**Table B20.** 2019-20 Number and Pass Rate of Virtual Enrollments by School Poverty Levels

School Poverty Category	Pass Count	# of Enrolls	% of Enrolls	Pass Rate
Low Poverty (<=25%)	40,623	61,307	9%	66%
Mid-Low Poverty (>25% to <=50%)	71,864	103,992	15%	69%
Mid-High Poverty (>50% to <=75%)	128,260	241,519	36%	53%
High Poverty (>75%)	130,624	262,209	39%	50%
Missing	2,736	3,655	1%	75%
<b>Total</b>	<b>374,107</b>	<b>672,682</b>	<b>100%</b>	<b>56%</b>

## Appendix – C Course Tables

**Table C1.** 2019-20 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	1,146	0%	72%
Architecture and Construction	150	0%	83%
Business and Marketing	9,402	1%	69%
Communication and Audio/Visual Technology	4,159	1%	64%
Computer and Information Sciences	11,229	2%	64%
Engineering and Technology	2,620	0%	66%
English Language and Literature	129,014	19%	54%
Fine and Performing Arts	40,889	6%	58%
Foreign Language and Literature	38,654	6%	56%
Health Care Sciences	3,578	1%	69%
Hospitality and Tourism	896	0%	66%
Human Services	8,087	1%	67%
Life and Physical Sciences	93,463	14%	54%
Manufacturing	164	0%	76%
Mathematics	117,399	17%	52%
Military Science	59	0%	73%
Miscellaneous	47,037	7%	51%
Nonsubject Specific	754	0%	75%
Physical, Health, and Safety Education	50,696	8%	61%
Public, Protective, and Government Services	2,023	0%	74%
Religious Education and Theology	142	0%	80%
Social Sciences and History	111,056	17%	58%
Transportation, Distribution, and Logistics	65	0%	62%
<b>Total</b>	<b>672,682</b>	<b>100%</b>	<b>56%</b>

**Table C2.** 2019-20 Pass Rate Comparison for Virtual Learners for Their Virtual and Non-Virtual Courses by Subject Area

<b>Subject Area</b>	<b>Virtual Pass Rate</b>	<b>Non-Virtual Pass Rate</b>
Agriculture, Food, and Natural Resources	72%	86%
Architecture and Construction	83%	82%
Business and Marketing	69%	86%
Communication and Audio/Visual Technology	64%	86%
Computer and Information Sciences	64%	78%
Engineering and Technology	66%	82%
English Language and Literature	54%	78%
Fine and Performing Arts	58%	84%
Foreign Language and Literature	56%	77%
Health Care Sciences	69%	85%
Hospitality and Tourism	66%	82%
Human Services	67%	81%
Life and Physical Sciences	54%	76%
Manufacturing	76%	80%
Mathematics	52%	75%
Military Science	73%	81%
Miscellaneous	51%	76%
Nonsubject Specific	75%	63%
Physical, Health, and Safety Education	61%	79%
Public, Protective, and Government Services	74%	82%
Religious Education and Theology	80%	84%
Social Sciences and History	58%	76%
Transportation, Distribution, and Logistics	62%	82%
<b>Total</b>	<b>56%</b>	<b>78%</b>

**Table C3.** 2019-20 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)	22,990	18%	41%
English/Language Arts II (10th grade)	22,904	18%	48%
English/Language Arts III (11th grade)	19,009	15%	56%
English/Language Arts IV (12th grade)	18,680	14%	62%
English Proficiency Development	4,157	3%	25%
Language Arts (grade 8)	4,088	3%	56%
English Language and Literature—Other	3,403	3%	37%
American Literature	3,155	2%	56%
Language Arts (grade 7)	3,054	2%	59%
Language Arts (grade 6)	2,319	2%	60%
<b>Total</b>	<b>103,759</b>	<b>80%</b>	<b>51%</b>

Note: % of Enrolls based on the overall total of 129,014 for this subject area.

**Table C4.** 2019-20 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	23,215	20%	49%
Algebra II	20,951	18%	56%
Algebra I	18,736	16%	39%
Consumer Math	8,383	7%	68%
Pre-Algebra	5,047	4%	39%
Mathematics—Other	4,636	4%	41%
Algebra I—Part 1	4,467	4%	39%
Mathematics (grade 7)	3,547	3%	64%
Mathematics (grade 8)	3,023	3%	52%
Business Math	2,992	3%	49%
<b>Total</b>	<b>94,997</b>	<b>81%</b>	<b>49%</b>

Note: % of Enrolls based on the overall total of 117,399 for this subject area.



**Table C5.** 2019-20 Number and Percentage of Virtual Enrollments with Pass Rate by Course Title for the Top 10 Most Enrolled in Life and Physical Sciences Courses

<b>Life and Physical Sciences Course Titles</b>	<b># of Enrolls</b>	<b>% of Enrolls</b>	<b>Pass Rate</b>
Biology	23,607	25%	47%
Chemistry	16,560	18%	54%
Earth Science	10,152	11%	51%
Physical Science	6,711	7%	48%
Earth and Space Science	5,706	6%	50%
Environmental Science	3,727	4%	60%
Life and Physical Sciences—Other	3,521	4%	39%
Physics	3,478	4%	59%
Integrated Science	2,169	2%	56%
Science (grade 8)	1,932	2%	57%
<b>Total</b>	<b>77,563</b>	<b>83%</b>	<b>50%</b>

Note: % of Enrolls based on the overall total of 93,463 for this subject area.

**Table C6.** 2019-20 Number and Percentage of Virtual Enrollments with Pass Rate by Course Title for the Top 10 Most Enrolled in Social Sciences and History Courses

<b>Social Sciences and History Course Titles</b>	<b># of Enrolls</b>	<b>% of Enrolls</b>	<b>Pass Rate</b>
U.S. History—Comprehensive	19,163	17%	51%
Economics	12,873	12%	59%
World History—Overview	12,105	11%	55%
World History and Geography	11,190	10%	49%
U.S. Government—Comprehensive	7,776	7%	59%
Psychology	5,343	5%	65%
Civics	5,064	5%	56%
Modern U.S. History	3,374	3%	57%
U.S. History—Other	2,740	2%	46%
Sociology	2,684	2%	67%
<b>Total</b>	<b>82,312</b>	<b>74%</b>	<b>55%</b>

Note: % of Enrolls based on the overall total of 111,056 for this subject area.

**Table C7.** 2019-20 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	50	1%	86%
AP Biology	162	4%	81%
AP Calculus AB	152	4%	86%
AP Calculus BC	95	3%	91%
AP Chemistry	80	2%	83%
AP Comparative Government and Politics	8	0%	NR
AP Computer Science A	261	7%	87%
AP Computer Science AB	69	2%	90%
AP Computer Science Principles	6	0%	NR
AP Economics	14	0%	NR
AP English Language and Composition	308	8%	93%
AP English Literature and Composition	197	5%	86%
AP Environmental Science	122	3%	88%
AP European History	13	0%	NR
AP French Language and Culture	25	1%	72%
AP French Literature	1	0%	NR
AP Government	28	1%	82%
AP Human Geography	83	2%	82%
AP Macroeconomics	134	4%	85%
AP Microeconomics	139	4%	92%
AP Music Theory	58	2%	76%
AP Physics 1	6	0%	NR
AP Physics B	89	2%	89%
AP Physics C	63	2%	87%
AP Psychology	712	19%	88%
AP Spanish Language and Culture	78	2%	71%
AP Statistics	283	7%	89%
AP Studio Art—Drawing Portfolio	2	0%	NR
AP U.S. Government and Politics	99	3%	90%
AP U.S. History	354	9%	78%
AP World History	87	2%	93%
<b>Total</b>	<b>3,778</b>	<b>100%</b>	<b>86%</b>

Note: An additional 440 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.** 2019-20 Virtual Enrollment Percentage by Subject Area and Locale

<b>Subject Area</b>	<b>% City</b>	<b>% Not Specified</b>	<b>% Rural</b>	<b>% Suburb</b>	<b>% Town</b>
Agriculture, Food, and Natural Resources	0%	1%	0%	0%	0%
Architecture and Construction	0%	0%	0%	0%	0%
Business and Marketing	1%	1%	1%	2%	1%
Communication and Audio/Visual Technology	0%	1%	1%	1%	0%
Computer and Information Sciences	1%	2%	2%	2%	1%
Engineering and Technology	0%	1%	1%	0%	0%
English Language and Literature	20%	14%	21%	18%	20%
Fine and Performing Arts	7%	12%	5%	5%	7%
Foreign Language and Literature	5%	6%	6%	6%	5%
Health Care Sciences	0%	0%	1%	1%	1%
Hospitality and Tourism	0%	0%	0%	0%	0%
Human Services	1%	1%	1%	1%	2%
Life and Physical Sciences	14%	13%	13%	15%	14%
Manufacturing	0%	0%	0%	0%	0%
Mathematics	19%	16%	16%	18%	17%
Military Science	0%	0%	0%	0%	0%
Miscellaneous	6%	3%	7%	9%	6%
Nonsubject Specific	0%	1%	0%	0%	0%
Physical, Health, and Safety Education	8%	12%	8%	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	16%	14%	18%	16%	17%
Transportation, Distribution, and Logistics	0%	0%	0%	0%	0%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

**Table C9.** 2019-20 Virtual Enrollment Pass Rates by Subject Area and Locale

<b>Subject Area</b>	<b>City Pass Rate</b>	<b>Not Specified Pass Rate</b>	<b>Rural Pass Rate</b>	<b>Suburb Pass Rate</b>	<b>Town Pass Rate</b>
Agriculture, Food, and Natural Resources	83%	34%	77%	86%	86%
Architecture and Construction	NR	NR	74%	NR	91%
Business and Marketing	54%	49%	72%	74%	72%
Communication and Audio/Visual Tech.	63%	51%	70%	69%	49%
Computer and Information Sciences	50%	68%	64%	71%	60%
Engineering and Technology	34%	35%	65%	92%	93%
English Language and Literature	44%	57%	52%	59%	57%
Fine and Performing Arts	56%	50%	47%	63%	70%
Foreign Language and Literature	52%	41%	61%	55%	65%
Health Care Sciences	61%	63%	79%	58%	76%
Hospitality and Tourism	53%	NR	78%	67%	64%
Human Services	62%	51%	74%	64%	69%
Life and Physical Sciences	42%	54%	53%	59%	58%
Manufacturing	96%	33%	93%	92%	NR
Mathematics	44%	51%	53%	54%	54%
Military Science	NR	NR	NR	63%	NR
Miscellaneous	34%	55%	60%	52%	58%
Nonsubject Specific	NR	85%	50%	73%	85%
Physical, Health, and Safety Education	60%	50%	56%	66%	67%
Public, Protective, and Government Services	60%	65%	71%	80%	79%
Religious Education and Theology	NR	NR	82%	80%	NR
Social Sciences and History	48%	53%	59%	61%	62%
Transportation, Distribution, and Logistics	NR	NR	71%	NR	NR
<b>Total</b>	<b>47%</b>	<b>52%</b>	<b>56%</b>	<b>59%</b>	<b>60%</b>

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

**Table C10.** 2019-20 Number and Percentage of Virtual Enrollments with Pass Rates by Subject Area and Student Sex

<b>Subject Area</b>	<b># of Male Enrolls</b>	<b># of Female Enrolls</b>	<b>% of Male Enrolls</b>	<b>% of Female Enrolls</b>	<b>Male Pass Rate</b>	<b>Female Pass Rate</b>
Agriculture, Food, and Natural Resources	447	699	0%	0%	64%	77%
Architecture and Construction	135	15	0%	0%	81%	NR
Business and Marketing	4,760	4,642	1%	1%	68%	71%
Communication and Audio/Visual Tech.	1,955	2,204	1%	1%	60%	68%
Computer and Information Sciences	6,775	4,454	2%	1%	64%	64%
Engineering and Technology	1,591	1,029	0%	0%	67%	65%
English Language and Literature	66,888	62,126	20%	19%	52%	56%
Fine and Performing Arts	19,551	21,338	6%	6%	56%	59%
Foreign Language and Literature	18,200	20,454	5%	6%	52%	60%
Health Care Sciences	948	2,630	0%	1%	64%	71%
Hospitality and Tourism	385	511	0%	0%	64%	68%
Human Services	3,550	4,537	1%	1%	64%	69%
Life and Physical Sciences	47,817	45,646	14%	14%	51%	56%
Manufacturing	141	23	0%	0%	76%	NR
Mathematics	60,291	57,108	18%	17%	50%	53%
Military Science	41	18	0%	0%	76%	NR
Miscellaneous	23,304	23,733	7%	7%	49%	53%
Nonsubject Specific	382	372	0%	0%	75%	76%
Physical, Health, and Safety Education	25,405	25,291	8%	8%	60%	62%
Public, Protective, and Gov. Services	760	1,263	0%	0%	70%	77%
Religious Education and Theology	40	102	0%	0%	80%	79%
Social Sciences and History	54,979	56,077	16%	17%	55%	60%
Transportation, Distribution, & Logistics	54	11	0%	0%	65%	NR
<b>Total</b>	<b>338,399</b>	<b>334,283</b>	<b>100%</b>	<b>100%</b>	<b>54%</b>	<b>58%</b>

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

**Table C11.** 2019-20 Number and Percentage of Virtual Enrollments with Pass Rate by Virtual Method

<b>Virtual Method</b>	<b># of Enrolls</b>	<b>% of Enrolls</b>	<b>Pass Rate</b>
Blended Learning	52,036	8%	53%
Digital Learning	55,694	8%	52%
Online Course	556,650	83%	56%
Missing	8,302	1%	61%
<b>Total</b>	<b>672,682</b>	<b>100%</b>	<b>56%</b>

## Appendix – D Student Tables

**Table D1.** 2019-20 Number and Percentage of Virtual Students with Percent Year over Year Change

Grade Level	# of Students	% of Students	% Change from 18-19
K	1,028	1%	-5%
1	1,157	1%	-9%
2	1,238	1%	-6%
3	1,195	1%	-16%
4	1,343	1%	-6%
5	1,590	1%	-8%
6	2,616	2%	-8%
7	3,614	3%	9%
8	4,989	4%	13%
9	16,860	14%	1%
10	22,365	18%	3%
11	25,454	21%	1%
12	39,606	32%	0%
<b>Total</b>	<b>121,900</b>	<b>100%</b>	<b>1%</b>

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.** 2019-20 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
Male	60,367	50%	338,399	50%	54%
Female	61,549	50%	334,283	50%	58%
<b>Total</b>	<b>121,900</b>	<b>100%</b>	<b>672,682</b>	<b>100%</b>	<b>56%</b>

Note: A few students had enrollments where their gender was listed as male on some, but female on others. The total row reflects the number of unique students

**Table D3.** 2019-20 Number and Percentage of Students and Virtual Enrollments with Pass Rate by Race/Ethnicity

<b>Race/Ethnicity</b>	<b># of Students</b>	<b>% of Students</b>	<b># of Enrolls</b>	<b>% of Enrolls</b>	<b>Pass Rate</b>
African-American or Black	20,537	17%	145,268	22%	45%
American Indian or Alaska Native	1,144	1%	5,785	1%	53%
Asian	2,252	2%	7,745	1%	74%
Hispanic or Latino	9,581	8%	56,014	8%	51%
Native Hawaiian or Pacific Islander	83	0%	440	0%	55%
White	82,392	68%	419,421	62%	60%
Two or More Races	5,526	5%	35,042	5%	53%
Unknown	931	1%	2,967	0%	36%
<b>Total</b>	<b>121,900</b>	<b>100%</b>	<b>672,682</b>	<b>100%</b>	<b>56%</b>

Note: The total number of students exceeds the 121,900 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.** 2019-20 Number and Percentage of Students and Virtual Enrollments with Pass Rate by Poverty Status

<b>Poverty Status</b>	<b># of Students</b>	<b>% of Students</b>	<b># of Enrolls</b>	<b>% of Enrolls</b>	<b>Pass Rate</b>
Yes	71,474	59%	460,655	68%	50%
No	50,302	41%	211,501	31%	68%
Unknown	124	0%	526	0%	26%
<b>Total</b>	<b>121,900</b>	<b>100%</b>	<b>672,682</b>	<b>100%</b>	<b>56%</b>

Note: The total number of students exceeds the 121,900 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.** 2019-20 Pass Rate Comparison for Virtual Learners for Their Virtual and Non-Virtual Courses by Poverty Status

<b>Poverty Status</b>	<b>Virtual Pass Rate</b>	<b>Non-Virtual Pass Rate</b>	<b>Virtual Pass Rate – Non-Virtual Pass Rate</b>
Yes	50%	70%	-20%
No	68%	86%	-19%
Unknown	26%	27%	-2%
<b>Total</b>	<b>56%</b>	<b>78%</b>	<b>-22%</b>

Note: The Virtual Pass Rate – Non-Virtual Pass Rate calculation was run prior to rounding. That rounding effect accounts for what may appear a calculation error.

**Table D6.** 2019-20 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	69%	71%	49%
Part-Time Virtual	55%	66%	51%
<b>Total</b>	<b>59%</b>	<b>68%</b>	<b>50%</b>

**Table D7.** 2019-20 Number and Percentage of Students with Virtual Enrollments by School Poverty Levels

School Poverty Category	# of Virtual Students	# of All MI Students	% of Virtual Students
Low Poverty (<=25%)	18,831	293,428	6%
Mid-Low Poverty (>25% to <=50%)	31,499	439,682	7%
Mid-High Poverty (>50% to <=75%)	40,775	412,345	10%
High Poverty (>75%)	32,261	306,483	11%
Missing	721	0	NA
<b>Total</b>	<b>121,900</b>	<b>1,451,938</b>	<b>8%</b>

Note: The total number of students exceeds the 121,900 number because some students had enrollments across categories. The unique total was used to emphasize the true number of virtual students. Also, all Michigan K-12 schools with building codes were used to calculate the state figures.

**Table D8.** 2019-20 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	14,093	12%	88,966	13%	50%
No	107,133	88%	580,749	86%	57%
Unknown	931	1%	2,967	0%	36%
<b>Total</b>	<b>121,900</b>	<b>100%</b>	<b>672,682</b>	<b>100%</b>	<b>56%</b>

Note: The total number of students exceeds the 121,900 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 D9.** 2019-20 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	32,976	27%	306,495	46%	52%
Part-Time Virtual	90,403	74%	366,187	54%	59%
<b>Total</b>	<b>121,900</b>	<b>100%</b>	<b>672,682</b>	<b>100%</b>	<b>56%</b>

Note: The total number of students exceeds the 121,900 number because some students had enrollments for both virtual types. The unique total was used to emphasize the true number of virtual students.



**Table D10.** 2019-20 Pass Rate Comparison for Full- and Part-Time Virtual Learners

Virtual Type	Virtual Pass Rate	Non-Virtual Pass Rate
Full-Time Virtual	52%	NA
Part-Time Virtual	59%	78%
<b>Total</b>	<b>56%</b>	<b>78%</b>

**Table D11.** 2019-20 Number and Percentage of Part-Time Virtual 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	36,163	48%	88,884	37%	82%
Did Not Pass 1 or 2 NV Courses	14,736	20%	42,816	18%	67%
Did Not Pass 3 or More NV Courses	23,756	32%	110,748	46%	43%
<b>Total</b>	<b>74,655</b>	<b>100%</b>	<b>242,448</b>	<b>100%</b>	<b>61%</b>

**Table D12.** 2019-20 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	57,423	47%	198,706	30%	100%
Passed Some, But Not All	38,697	32%	346,699	52%	51%
Didn't Pass Any	25,780	21%	127,277	19%	0%
<b>Total</b>	<b>121,900</b>	<b>100%</b>	<b>672,682</b>	<b>100%</b>	<b>56%</b>

**Table D13.** 2019-20 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	10,474	41%
3 to 4	3,374	13%
5 to 6	5,234	20%
7 to 8	2,337	9%
9 to 10	1,133	4%
11+	3,228	13%
<b>Total</b>	<b>25,780</b>	<b>100%</b>

**Table D14.** 2019-20 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	51,759	42%	74,080	11%	76%
3 to 4 Virtual Courses	16,072	13%	56,039	8%	63%
5 or More Virtual Courses	54,069	44%	542,563	81%	52%
<b>Total</b>	<b>121,900</b>	<b>100%</b>	<b>672,682</b>	<b>100%</b>	<b>56%</b>

## **Appendix – E State Assessment Measures**

State assessments were suspended for the 2019-2020 school year due to the pandemic.

## Appendix – F Completion Status Tables

**Table F1.** 2019-20 Number and Percentage of Virtual Enrollments by Completion Status

Completion Status	# of Enrolls	% of Enrolls
Audited (No Credit Issued)	23,282	3%
Completed/Failed	102,548	15%
<b>Completed/Passed</b>	<b>374,107</b>	<b>56%</b>
Incomplete	70,274	10%
Ongoing Enrolled	13	0%
Testing Out	44	0%
Withdrawn/Exited	54,187	8%
Withdrawn/Failing	11,645	2%
Withdrawn/Passing	36,582	5%
<b>Total</b>	<b>672,682</b>	<b>100%</b>

**Table F2.** 2019-20 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%	4%	0%	3%
Completed/Failed	3%	15%	9%	16%
<b>Completed/Passed</b>	<b>52%</b>	<b>57%</b>	<b>58%</b>	<b>53%</b>
Incomplete	5%	10%	1%	11%
Ongoing Enrolled	0%	0%	0%	0%
Testing Out	0%	0%	0%	0%
Withdrawn/Exited	36%	8%	9%	7%
Withdrawn/Failing	0%	0%	0%	4%
Withdrawn/Passing	4%	5%	24%	5%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Note: UEP = Unique Education Provider

**Table F3.** 2019-20 Number and Percentage of Full-Time Virtual Enrollments by Completion Status

<b>Completion Status</b>	<b># of Enrolls</b>	<b>% of Enrolls</b>
Audited (No Credit Issued)	10,235	3%
Completed/Failed	49,147	16%
<b>Completed/Passed</b>	<b>159,328</b>	<b>52%</b>
Incomplete	32,784	11%
Ongoing Enrolled	4	0%
Testing Out	0	0%
Withdrawn/Exited	19,598	6%
Withdrawn/Failing	10,241	3%
Withdrawn/Passing	25,158	8%
<b>Total</b>	<b>306,495</b>	<b>100%</b>

**Table F4.** 2019-20 Number and Percentage of Part-Time Virtual Enrollments by Completion Status

<b>Completion Status</b>	<b># of Enrolls</b>	<b>% of Enrolls</b>
Audited (No Credit Issued)	13,047	4%
Completed/Failed	53,401	15%
<b>Completed/Passed</b>	<b>214,779</b>	<b>59%</b>
Incomplete	37,490	10%
Ongoing Enrolled	9	0%
Testing Out	44	0%
Withdrawn/Exited	34,589	9%
Withdrawn/Failing	1,404	0%
Withdrawn/Passing	11,424	3%
<b>Total</b>	<b>366,187</b>	<b>100%</b>

**Table F5.** 2019-20 Percentage of Virtual Enrollments by Completion Status and School Emphasis

<b>Completion Status</b>	<b>Alt Ed % of Enrolls</b>	<b>Gen Ed % of Enrolls</b>	<b>Special Ed % of Enrolls</b>
Audited (No Credit Issued)	7%	1%	0%
Completed/Failed	15%	15%	4%
<b>Completed/Passed</b>	<b>43%</b>	<b>68%</b>	<b>35%</b>
Incomplete	18%	4%	1%
Ongoing Enrolled	0%	0%	0%
Testing Out	0%	0%	0%
Withdrawn/Exited	10%	6%	59%
Withdrawn/Failing	1%	2%	0%
Withdrawn/Passing	7%	4%	0%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

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

**Table F6.** 2019-20 Percentage of Virtual Enrollments by Completion Status and Core Subject Area

<b>Completion Status</b>	<b>English % of Enrolls</b>	<b>Math % of Enrolls</b>	<b>Science % of Enrolls</b>	<b>Social Sci % of Enrolls</b>
Audited (No Credit Issued)	3%	3%	3%	3%
Completed/Failed	16%	17%	17%	15%
<b>Completed/Passed</b>	<b>54%</b>	<b>52%</b>	<b>54%</b>	<b>58%</b>
Incomplete	12%	12%	12%	11%
Ongoing Enrolled	0%	0%	0%	0%
Testing Out	0%	0%	0%	0%
Withdrawn/Exited	8%	9%	8%	7%
Withdrawn/Failing	2%	2%	2%	2%
Withdrawn/Passing	5%	5%	5%	4%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

**Table F7.** 2019-20 Percentage of Virtual Enrollments by Completion Status and Student Sex

<b>Completion Status</b>	<b>Males % of Enrolls</b>	<b>Females % of Enrolls</b>
Audited (No Credit Issued)	4%	3%
Completed/Failed	16%	14%
<b>Completed/Passed</b>	<b>54%</b>	<b>58%</b>
Incomplete	11%	10%
Ongoing Enrolled	0%	0%
Testing Out	0%	0%
Withdrawn/Exited	9%	8%
Withdrawn/Failing	2%	2%
Withdrawn/Passing	5%	6%
<b>Total</b>	<b>100%</b>	<b>100%</b>

**Table F8.** 2019-20 Percentage of Virtual Enrollments by Completion Status and Race / Ethnicity

<b>Completion Status</b>	<b>African American % of Enrolls</b>	<b>American Indian or Alaska Native % of Enrolls</b>	<b>Asian % of Enrolls</b>	<b>Hispanic or Latino % of Enrolls</b>	<b>White % of Enrolls</b>	<b>Two or More Races % of Enrolls</b>
Audited (No Credit Issued)	7%	2%	2%	3%	2%	1%
Completed/Failed	18%	16%	8%	14%	14%	18%
<b>Completed/Passed</b>	<b>45%</b>	<b>53%</b>	<b>74%</b>	<b>51%</b>	<b>60%</b>	<b>53%</b>
Incomplete	14%	11%	4%	15%	9%	11%
Ongoing Enrolled	0%	0%	0%	0%	0%	0%
Testing Out	0%	0%	0%	0%	0%	0%
Withdrawn/Exited	9%	11%	4%	10%	7%	9%
Withdrawn/Failing	2%	2%	1%	2%	2%	2%
Withdrawn/Passing	5%	5%	7%	5%	5%	6%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

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

**Table F9.** 2019-20 Percentage of Virtual Enrollments by Completion Status and Poverty Status

<b>Completion Status</b>	<b>In Poverty % of Enrolls</b>	<b>Not In Poverty % of Enrolls</b>	<b>Unknown % of Enrolls</b>
Audited (No Credit Issued)	4%	3%	0%
Completed/Failed	18%	10%	11%
<b>Completed/Passed</b>	<b>50%</b>	<b>68%</b>	<b>26%</b>
Incomplete	12%	7%	17%
Ongoing Enrolled	0%	0%	0%
Testing Out	0%	0%	0%
Withdrawn/Exited	9%	5%	36%
Withdrawn/Failing	2%	1%	7%
Withdrawn/Passing	5%	6%	4%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

**Table F10.** 2019-20 Percentage of Part-Time Virtual Enrollments by Completion Status and Special Education Status

<b>Completion Status</b>	<b>In Special Ed % of Enrolls</b>	<b>Not In Special Ed % of Enrolls</b>	<b>Unknown % of Enrolls</b>
Audited (No Credit Issued)	3%	4%	0%
Completed/Failed	18%	15%	15%
<b>Completed/Passed</b>	<b>50%</b>	<b>57%</b>	<b>36%</b>
Incomplete	10%	11%	17%
Ongoing Enrolled	0%	0%	0%
Testing Out	0%	0%	0%
Withdrawn/Exited	11%	7%	20%
Withdrawn/Failing	3%	2%	7%
Withdrawn/Passing	5%	6%	5%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

**Table F11.** 2019-20 Percentage of Virtual Enrollments by Completion Status for Students Who Did Not Pass Any of Their Virtual Courses

<b>Completion Status</b>	<b>Took At Least One Virtual Enrollment % of Enrolls</b>	<b>Took 11 or More Virtual Enrollments % of Enrolls</b>
Audited (No Credit Issued)	11%	12%
Completed/Failed	27%	32%
<b>Completed/Passed</b>	<b>0%</b>	<b>0%</b>
Incomplete	21%	20%
Ongoing Enrolled	0%	0%
Testing Out	0%	0%
Withdrawn/Exited	23%	16%
Withdrawn/Failing	6%	6%
Withdrawn/Passing	12%	13%
<b>Total</b>	<b>100%</b>	<b>100%</b>





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