



Mohammed Choudhury
State Superintendent of Schools

TO: Members of the State Board of Education
FROM: Mohammed Choudhury, State Superintendent of Schools
DATE: July 12, 2022
SUBJECT: Local Education Agency Virtual Programs Update

PURPOSE:

To share information and quarter three data related to SY 2021-2022 approved virtual learning programs in Maryland's local school systems.

BACKGROUND/HISTORICAL PERSPECTIVE:

This report will provide an update on third quarter virtual program enrollment data, review the quarterly metrics submitted for marking period three, and highlight lessons learned within local virtual programs.

EXECUTIVE SUMMARY:

An update will be provided on third quarter virtual program attendance and demographics data. The metrics for the third quarter will be presented and compared to the data collected at the end of the second quarter. Comparisons of attendance and failure rates for virtual students compared to all students will be presented. The Maryland State Department of Education will also highlight modifications school systems made to their virtual programs based on lessons learned from the first semester.

ACTION:

For information and discussion

ATTACHMENTS:

Virtual Programs July 2022 Update.pptx
Virtual Program Enrollment Data- MP 3. pdf

Local Education Agency Virtual Programs Update

MARYLAND STATE BOARD OF EDUCATION | July 26, 2022

Presented By | Dr. Deann Collins



Presentation Highlights

1. Update on quarter 3 enrollment and demographic data
2. Review the quarterly metrics data for quarter 3, and compare to quarter 2
3. Highlight two local school system virtual programs
4. Identify characteristics of successful virtual students

PRESENTATION OUTLINE

1. Virtual Program Enrollment
2. Third Quarter Metrics
3. Virtual Program Attendance
4. Virtual Program Grades
5. Analysis of Virtual Programs
6. School System Practices
7. Lessons Learned

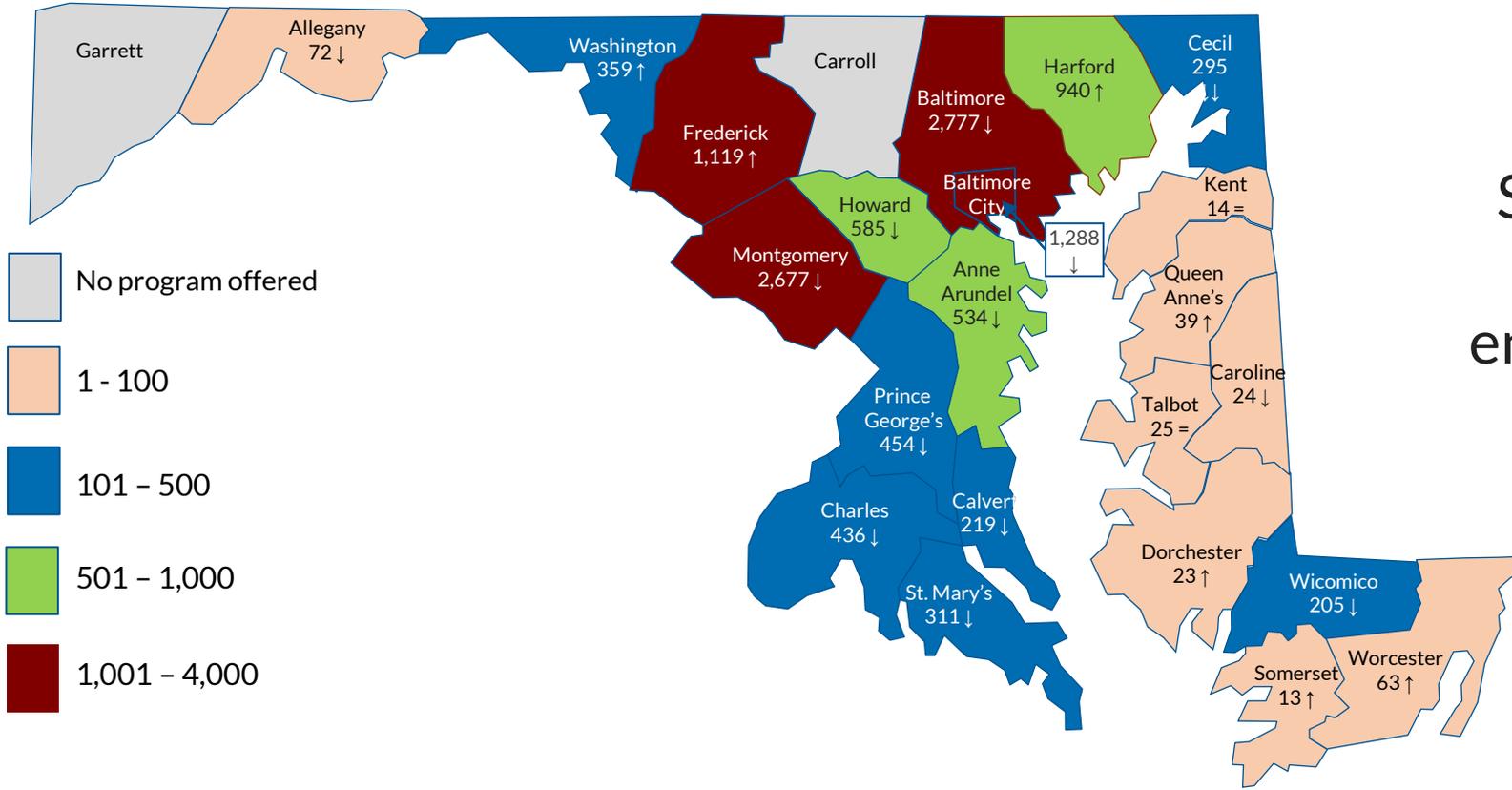


Virtual Program Enrollment

1. **Virtual Program Enrollment**
2. Third Quarter Metrics
3. Virtual Program Attendance
4. Virtual Program Grades
5. Analysis of Virtual Programs
6. School System Practices
7. Lessons Learned

Virtual Program Enrollment Data

Virtual Program Enrollment I



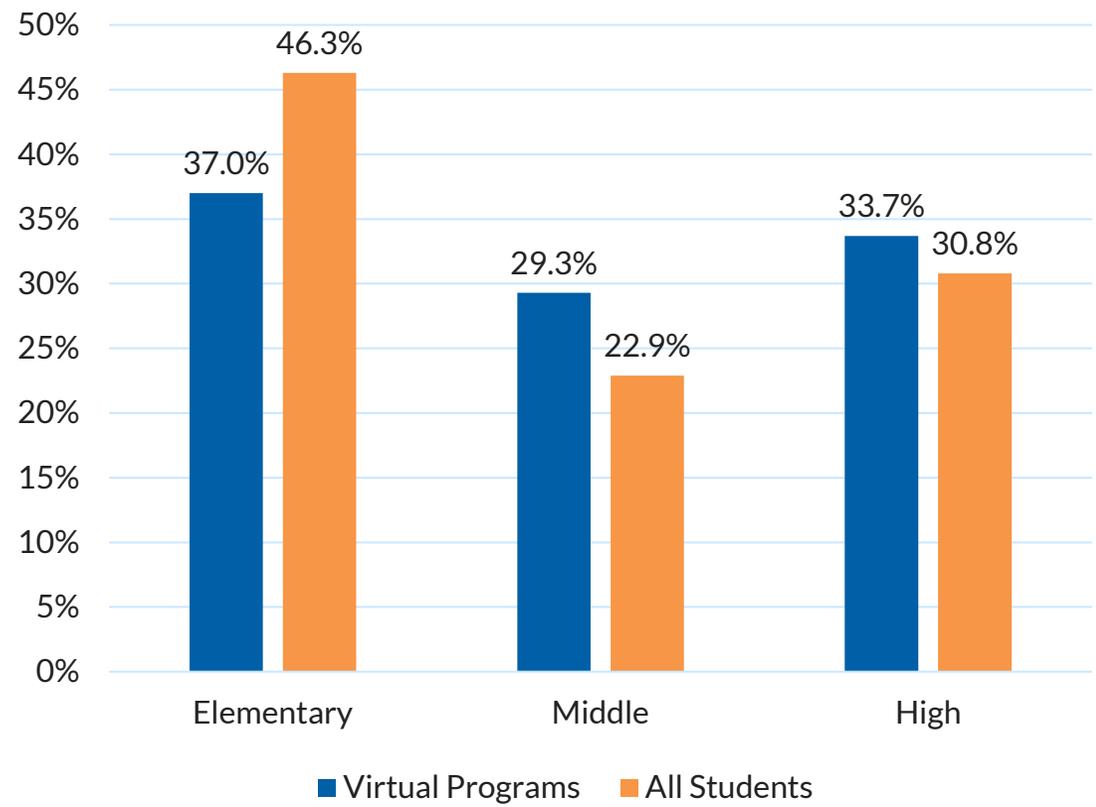
Statewide virtual student enrollment: **12,472**

NOTE: Arrows on the map represent increases and decreases in LEA enrollment numbers from quarter 2 to quarter 3. An equal sign means the enrollment remained the same.

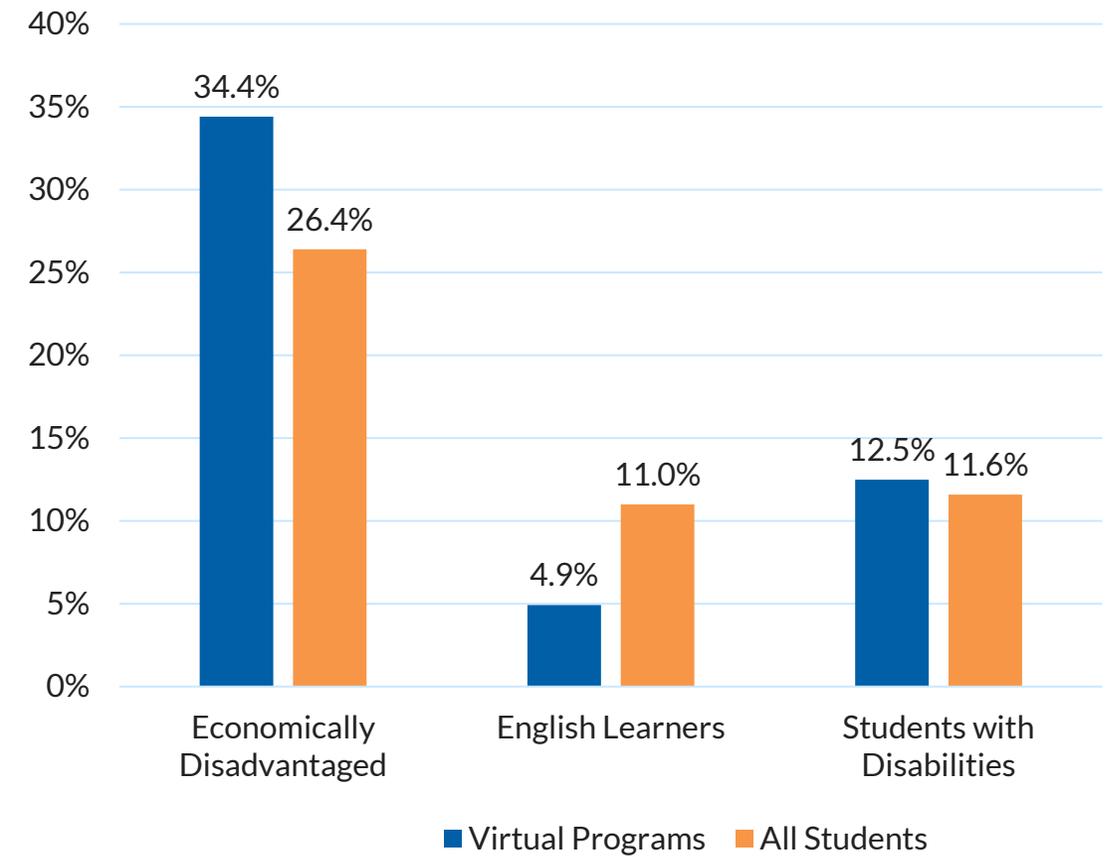
Data source: MSDE Full-time Virtual Programs Student File Submission, April 2022

Virtual Program Enrollment II

Grade Level



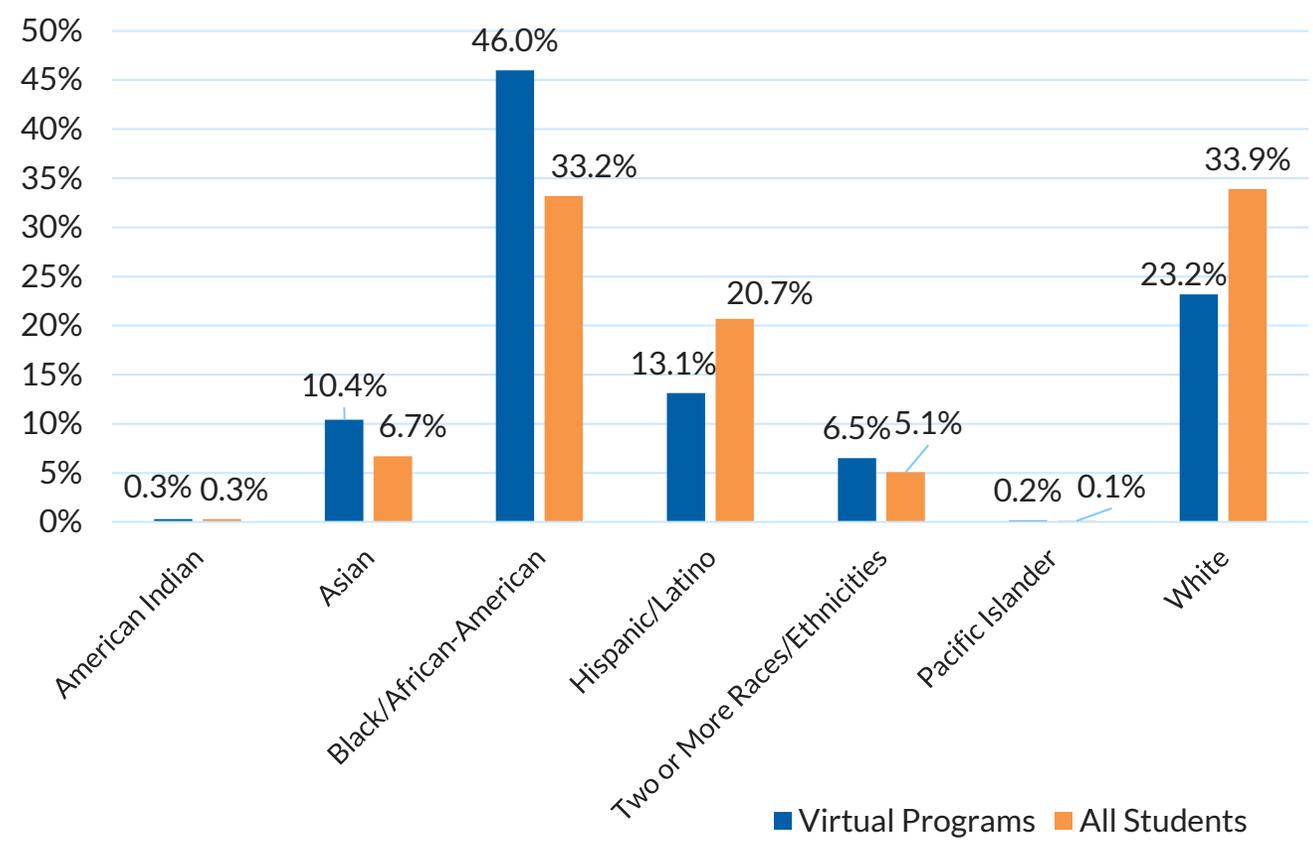
Student Group



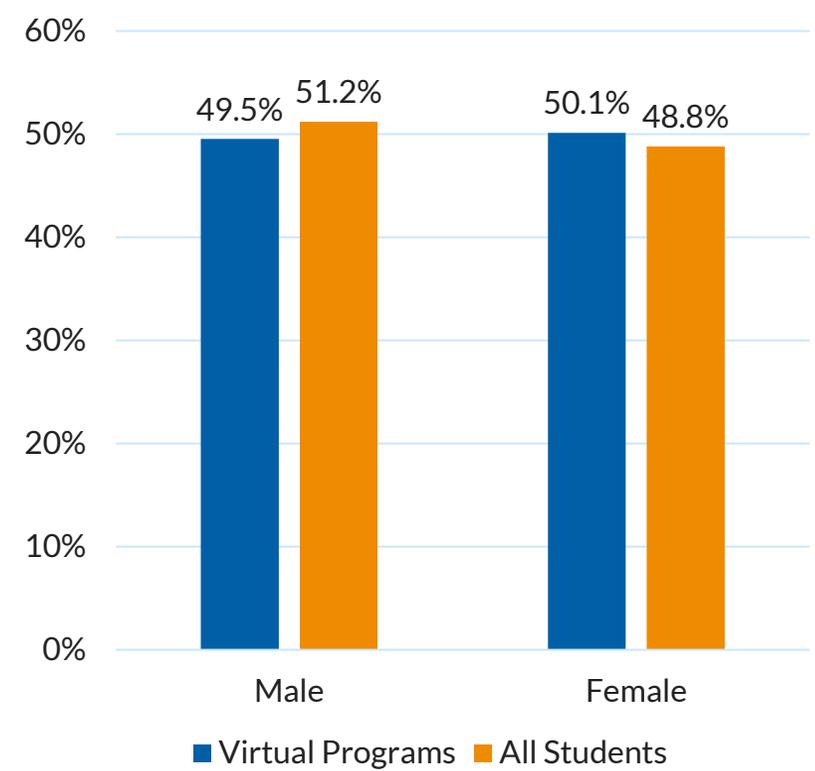
Data source: MSDE Full-time Virtual Programs Student File Submission, April 2022

Virtual Program Enrollment III

Race/Ethnicity



Gender



Data source: MSDE Full-time Virtual Programs Student File Submission, April 2022

- 
1. Virtual Program Enrollment
 2. **Third Quarter Metrics**
 3. Virtual Program Attendance
 4. Virtual Program Grades
 5. Analysis of Virtual Programs
 6. School System Practices
 7. Lessons Learned

Third Quarter Metrics

Reviewing the Third Quarter Metrics

Quarterly Metrics: Overview

- Third quarter LEA-level data was collected from **April 8th to May 6th**
- The last day of the third quarter varied by LEA, from March 25th to April 8th
- **21 systems are included in the results**
 - Represents 100% of students enrolled in virtual programs across the state
 - Carroll and Garrett do not have virtual programs
 - In Kent County students are virtual 4 days a week and are required to attend classes in a school building 1 day a week

Virtual Program Class Size

Virtual program class size varied by grade level and LEA

Grade Band	Measure	Core Academic Subjects	Other Academic Subjects
Elementary (K-5)	Average Range	21.2 10-26	20.6 9-26
Middle (6-8)	Average Range	21.9 12-25	24.3 11-34
High (9-12)	Average Range	17.8 2-28	20.0 6-29

Virtual Program Instructional Time

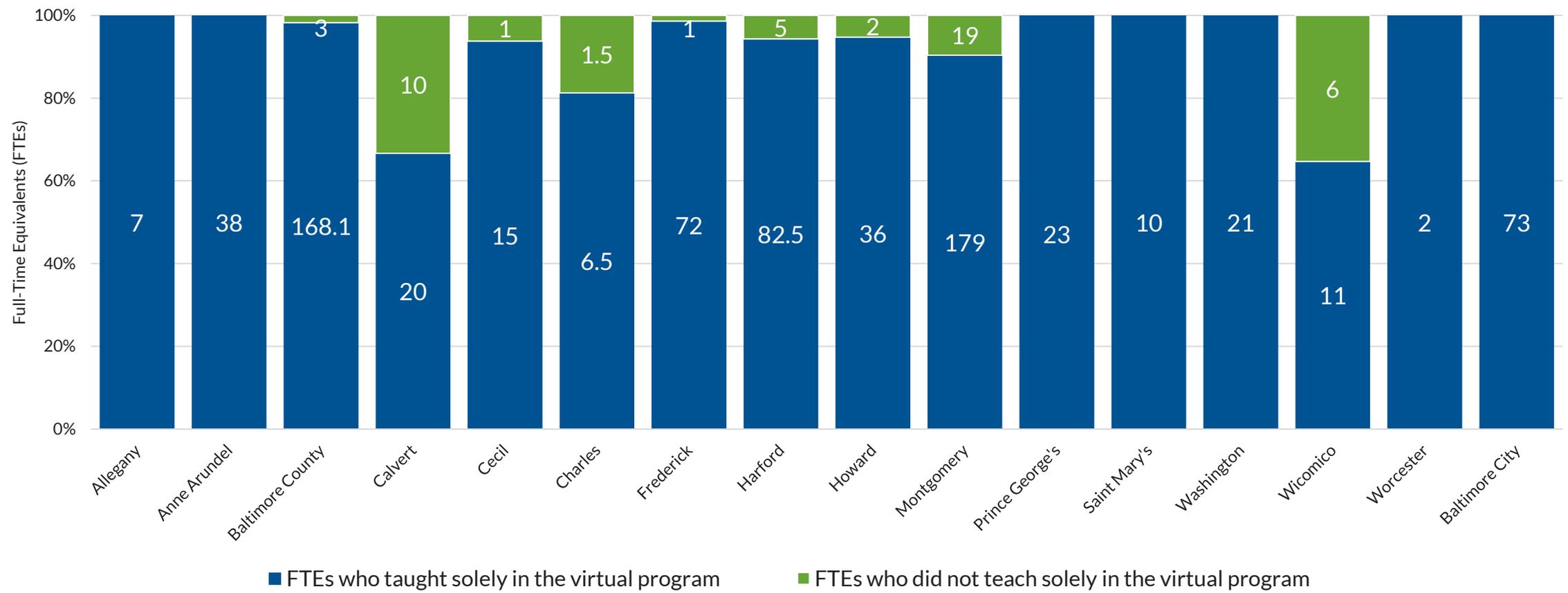
Synchronous instructional time varied widely across LEAs

Grade Level	Measure	Instructional Days during the Second Quarter	Synchronous Instructional Hours per Week*
Elementary (K-5)	Median Range	45 43-49	27.8 13-37.5
Middle (6-8)	Median Range	45 43-49	27.5 3.3-37.5
High (9-12)	Median Range	45 43-49	18.5 1.3-37.5

** In a typical five-day week*

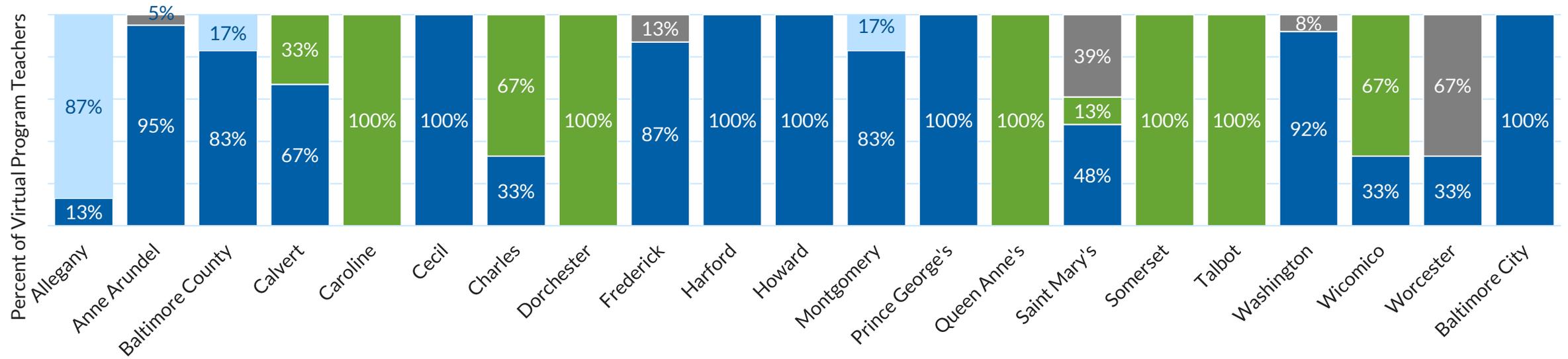
Virtual Program Teacher Assignment by LEA

The majority of virtual program teachers taught solely in the virtual program



Virtual Program Staffing

The source of virtual program teachers varied by LEA



■ Substitute teachers hired by the LEA ■ Teachers contracted by the LEA to teach 1 or 2 classes in the virtual program ■ Vendor-hired teachers ■ LEA teachers

Professional Development Time

Fully virtual program teacher professional development (PD) hours varied by LEA

	Elementary school	Middle school	High school
LEA Average Hours of PD	11.4	9.7	9.2
LEA Minimum Hours of PD	0	0	0
LEA Maximum Hours of PD	28	24	28

Note: Data does not include PD provided by virtual program vendors.

Professional Development Type

LEAs reported providing multiple delivery modes of professional development (PD)

PD Type	Elementary School	Middle School	High School
Virtual Synchronous	11	11	10
Virtual Asynchronous	8	10	8
In person	8	7	5
Self-service/As needed	13	12	9
Total LEAs reported	14	14	14

Note: Data does not include PD provided by virtual program vendors.

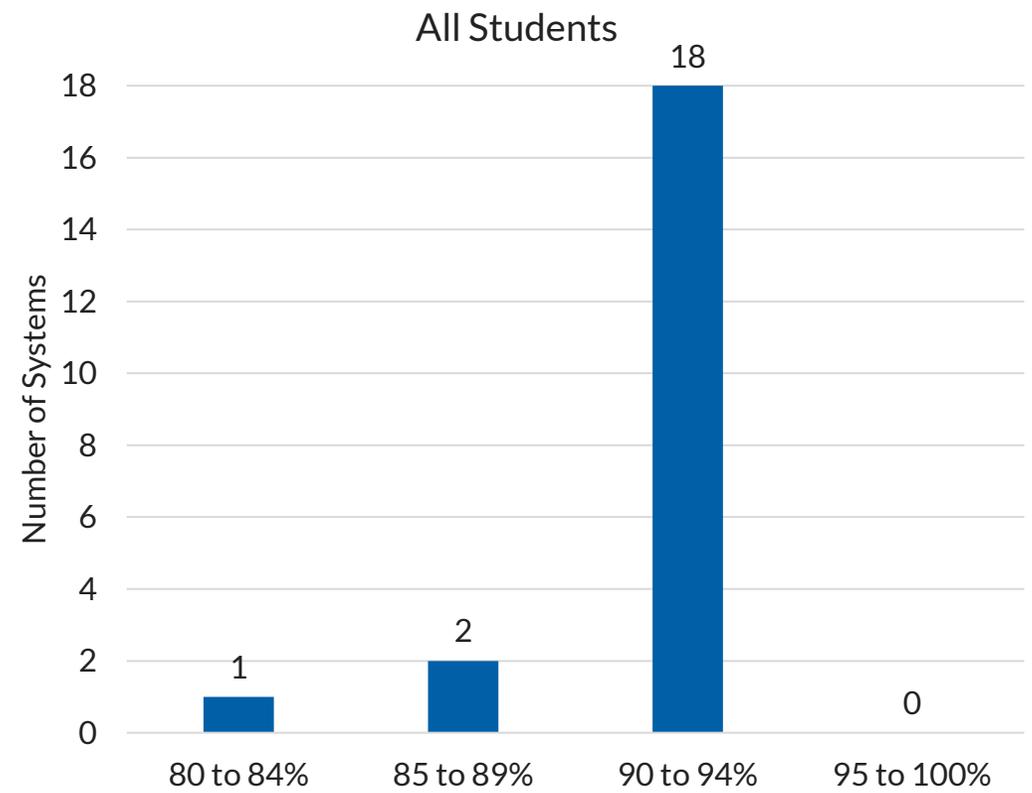
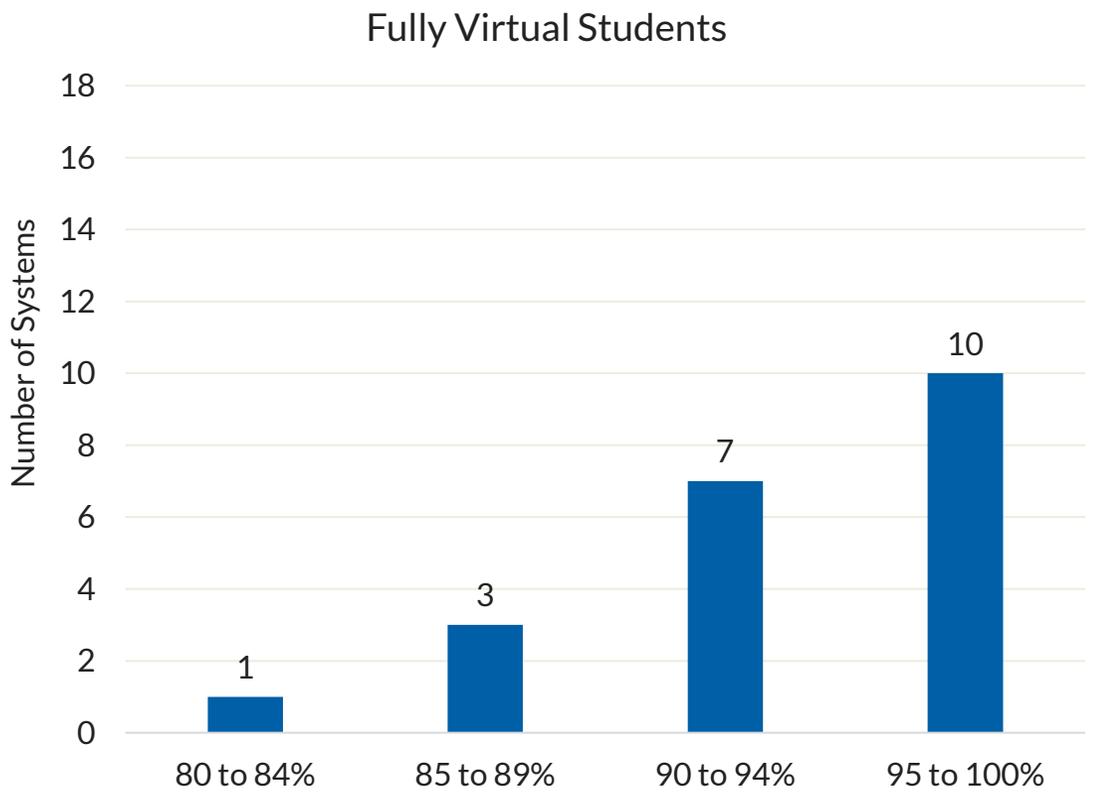
- 
1. Virtual Program Enrollment
 2. Third Quarter Metrics
 - 3. Virtual Program Attendance**
 4. Virtual Program Grades
 5. Analysis of Virtual Programs
 6. School System Practices
 7. Lessons Learned

Virtual Program Attendance

Reviewing Third Quarter Virtual Program Attendance

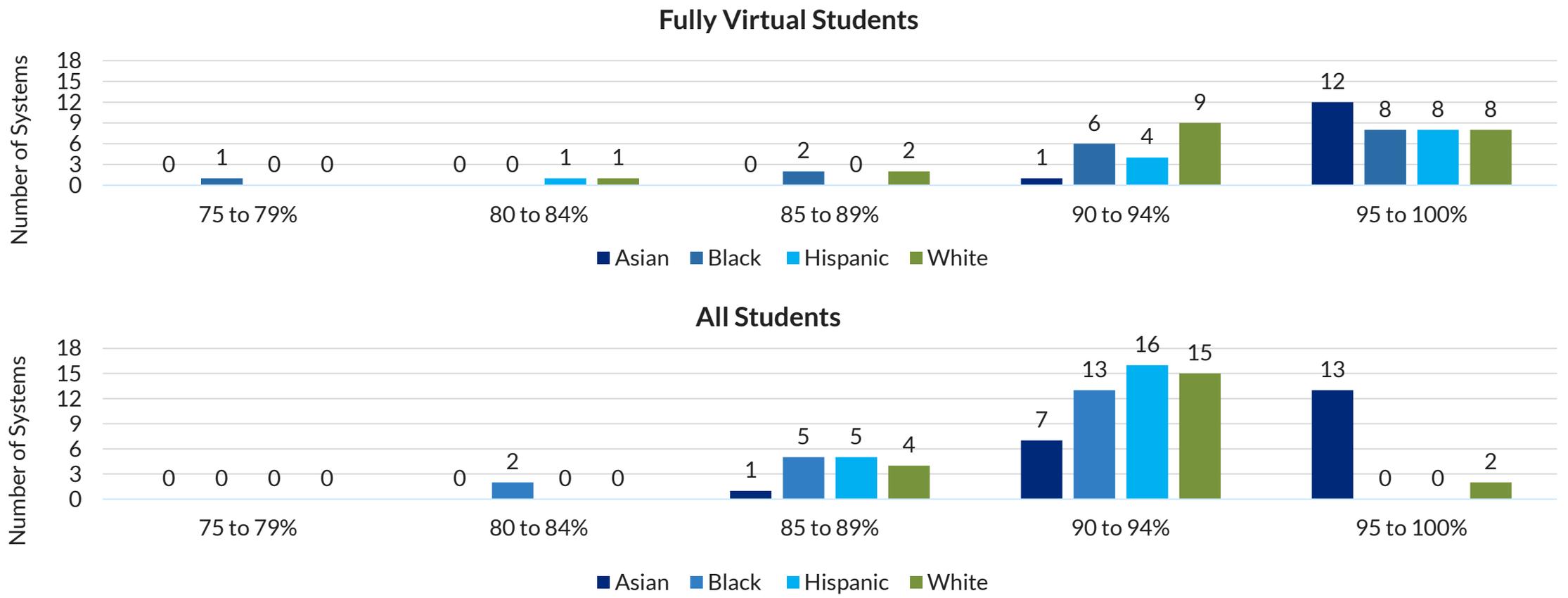
Third Quarter Attendance, All Students

More systems reported higher attendance for fully virtual students than for all students



Third Quarter Attendance by Race/Ethnicity

More systems reported higher attendance for fully virtual students than for all students



Note: Only systems with at least ten students in a student group are included.

Change in Attendance Rates I

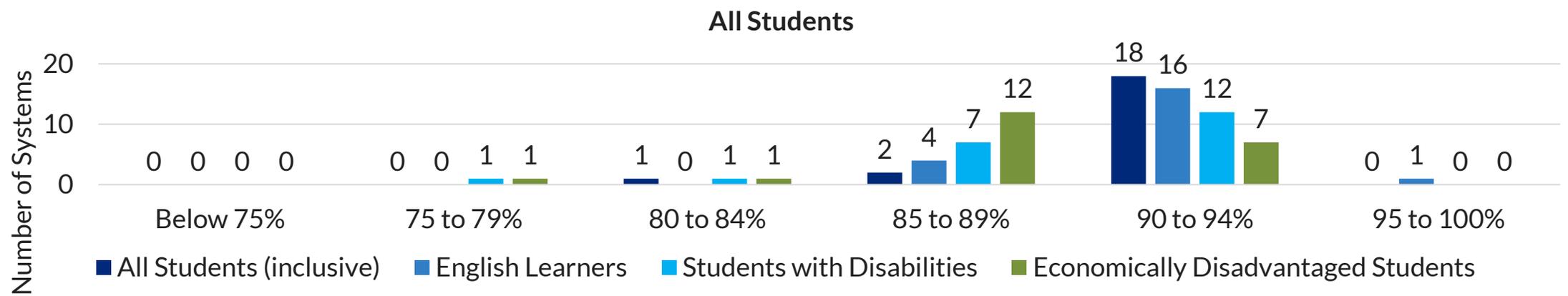
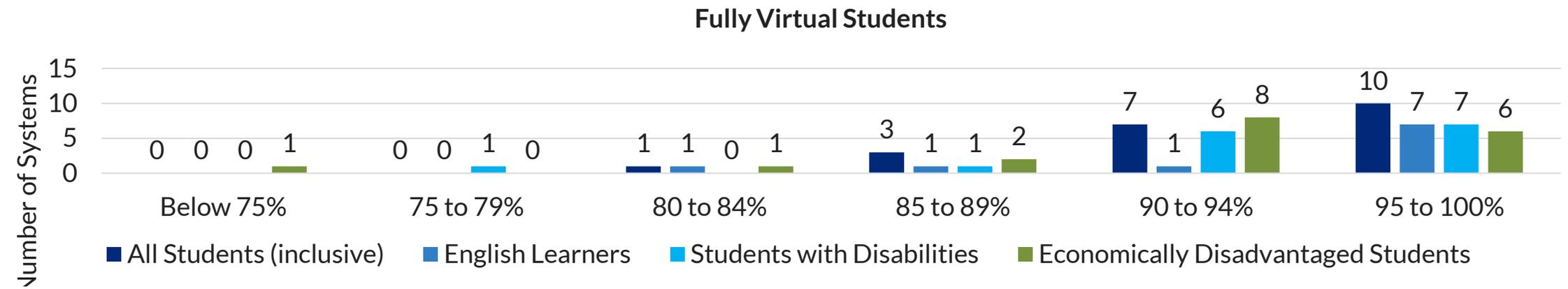
More systems had an increase in the attendance rate for virtual students from Quarter 2 to Quarter 3 than systems that had a decrease

Change in virtual program attendance rate	All students	Asian	Black/African-American	Hispanic/Latino	White
Increase of more than 2 percentage points	5	3	5	3	4
Increase of 1-2 percentage points	4	3	3	5	6
No change	8	5	6	2	2
Decrease of 1-2 percentage points	0	1	1	2	5
Decrease of more than 2 percentage points	4	1	2	1	2

Note: Counts only include school systems that have student groups of ten students or more.

Third Quarter Attendance by Student Group

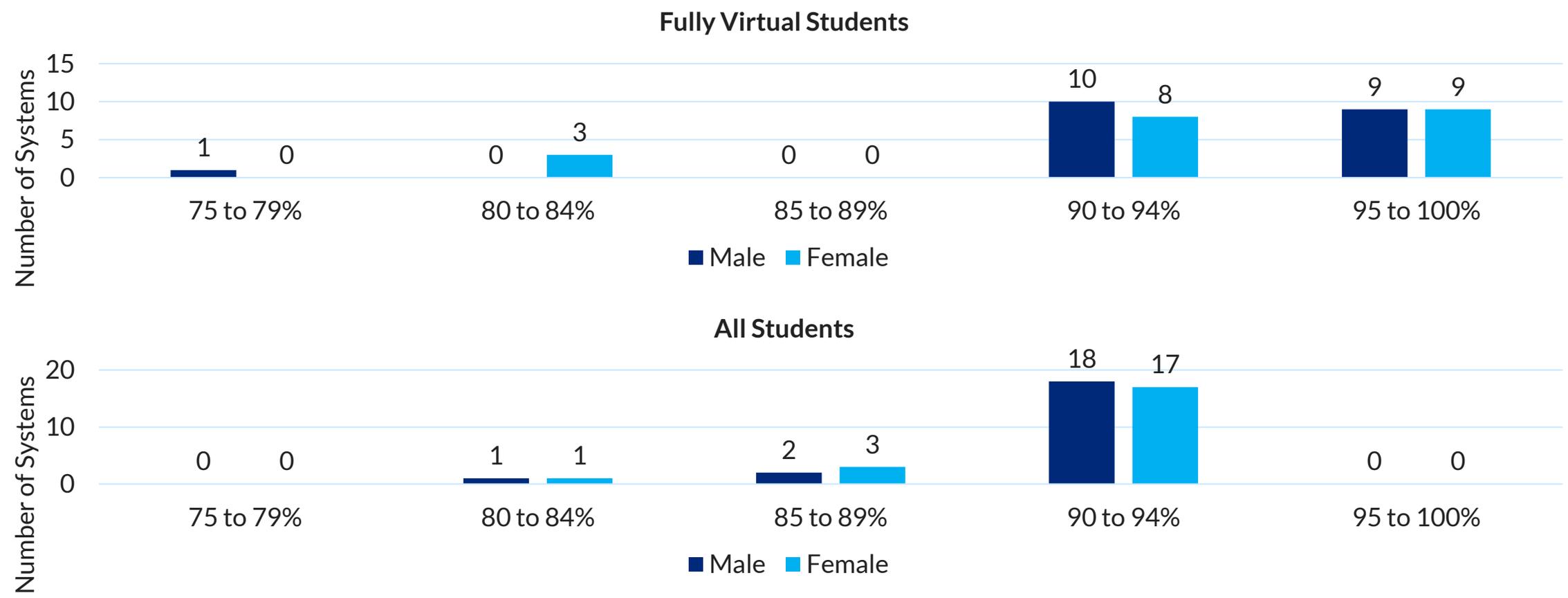
More systems reported higher attendance for fully virtual students than for all students



Note: Only systems with at least ten students in a student group are included.

Third Quarter Attendance by Gender

More systems reported higher attendance for fully virtual students than for all students



Note: Only systems with at least ten students in a student group are included.

Change in Attendance Rates II

More systems had an **increase in attendance rate** for virtual students from Quarter 2 to Quarter 3 than systems that had a decrease

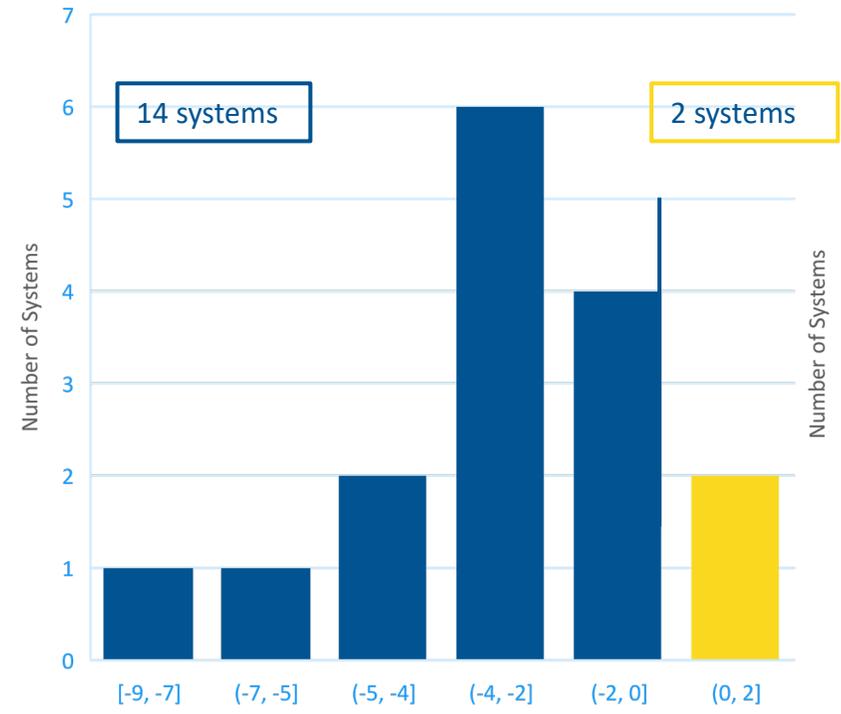
Change in virtual program attendance rate	English Learners	Students with Disabilities	Economically Disadvantaged	Male	Female
Increase of more than 2 percentage points	1	4	6	4	6
Increase of 1-2 percentage points	4	4	5	2	5
No change	5	1	4	5	5
Decrease of 1-2 percentage points	0	3	2	3	2
Decrease of more than 2 percentage points	0	3	1	4	2

Note: Counts only include school systems that have student groups of ten students or more.

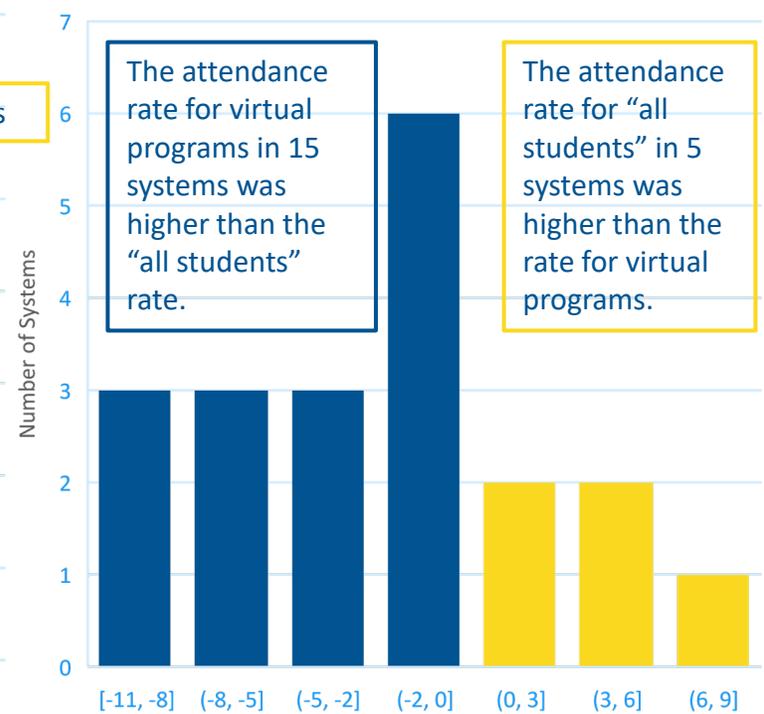
Attendance Rate Comparison

In nearly all systems, attendance rates were higher for virtual students at all grade levels, by up to 17 percentage point. On average, the attendance rate for virtual students was two percentage points higher than for all students in the same system.

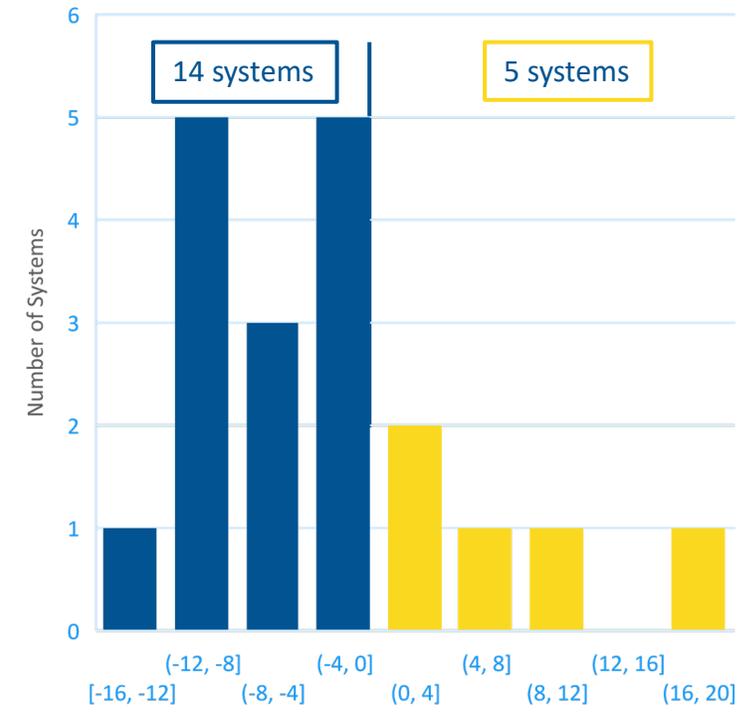
Elementary school difference between attendance rates: "all" - "virtual"



Middle school difference between attendance rates: "all" - "virtual"



High school difference between attendance rates: "all" - "virtual"



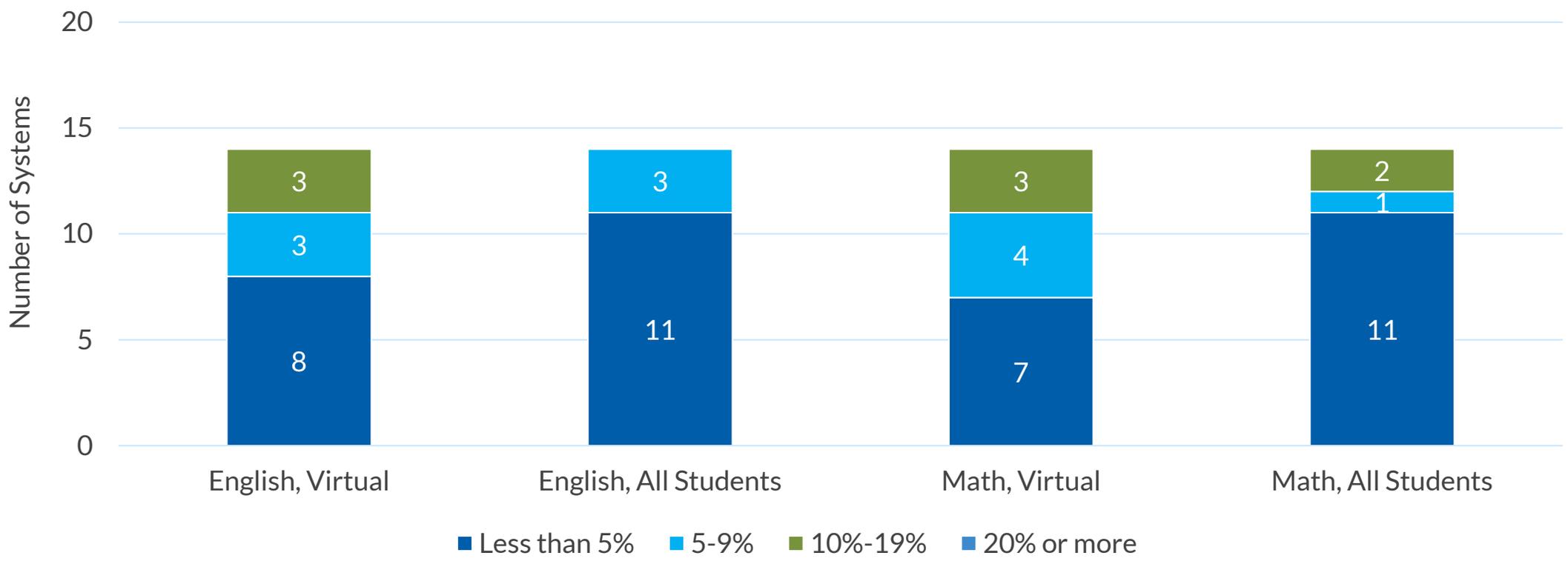
- 
1. Virtual Program Enrollment
 2. Third Quarter Metrics
 3. Virtual Program Attendance
 - 4. Virtual Program Grades**
 5. Analysis of Virtual Programs
 6. School System Practices
 7. Lessons Learned

Virtual Program Grades

Reviewing Third Quarter Virtual Program Grades

Third Quarter Course Grades, Grades K-5

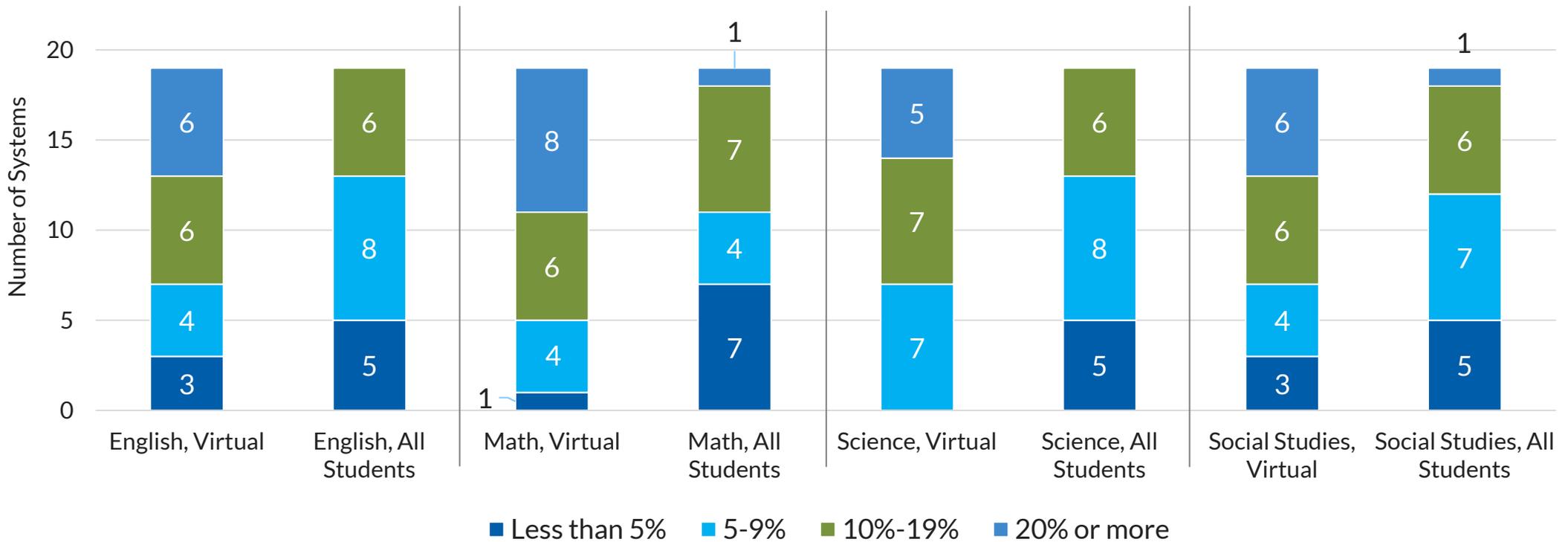
More systems reported higher failure rates for fully virtual elementary students than for all students



Note: Counts only include school systems that have student groups of ten students or more.

Third Quarter Course Grades, Grades 6-8

More systems reported **higher failure rates** for fully virtual middle school students than for all students



Note: Counts only include school systems that have student groups of ten students or more.

Change in Grades I

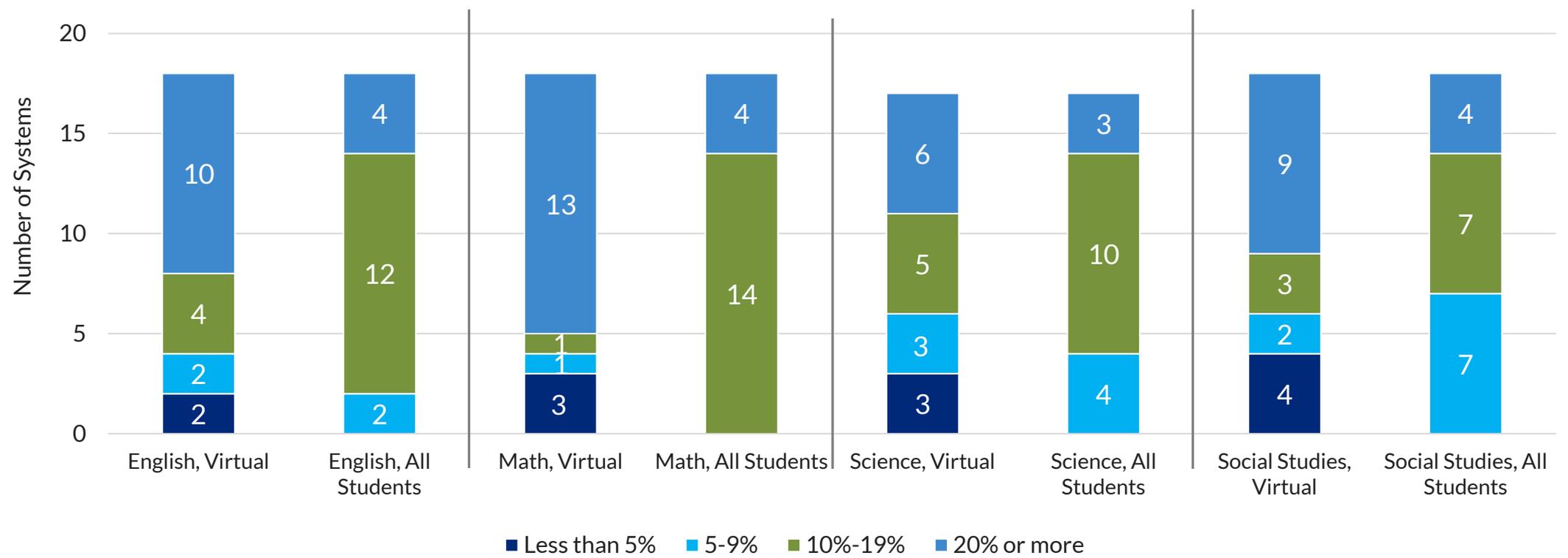
A similar number of systems had **increases and decreases in failure rates** for virtual students from Quarter 2 to Quarter 3

Change in virtual program failure rate	ELEMENTARY SCHOOL		MIDDLE SCHOOL			
	English	Math	English	Math	Science	Social Studies
Decrease of more than 10 percentage points	1	0	0	3	0	1
Decrease of 3-10 percentage points	1	3	8	4	6	5
Increase/decrease less than 3 percentage points	11	8	4	6	5	4
Increase of 3-10 percentage points	1	3	4	4	4	5
Increase of more than 10 percentage points	0	0	2	2	3	3

Note: Counts only include school systems that have student groups of ten students or more.

Third Quarter Course Grades, Grades 9-12

More systems reported higher failure rates for fully virtual high school students than for all students



Note: One system did not meet the reporting requirements in Science.

Change in Grades II

A similar number of systems **increased and decreased failure rates** for virtual high school students from Quarter 2 to Quarter 3

Change in virtual program failure rate	HIGH SCHOOL			
	English	Math	Science	Social Studies
Decrease of more than 10 percentage points	3	2	2	0
Decrease of 3-10 percentage points	1	4	0	7
Increase/decrease less than 3 percentage points	5	4	7	3
Increase of 3-10 percentage points	2	2	4	2
Increase of more than 10 percentage points	4	3	2	4

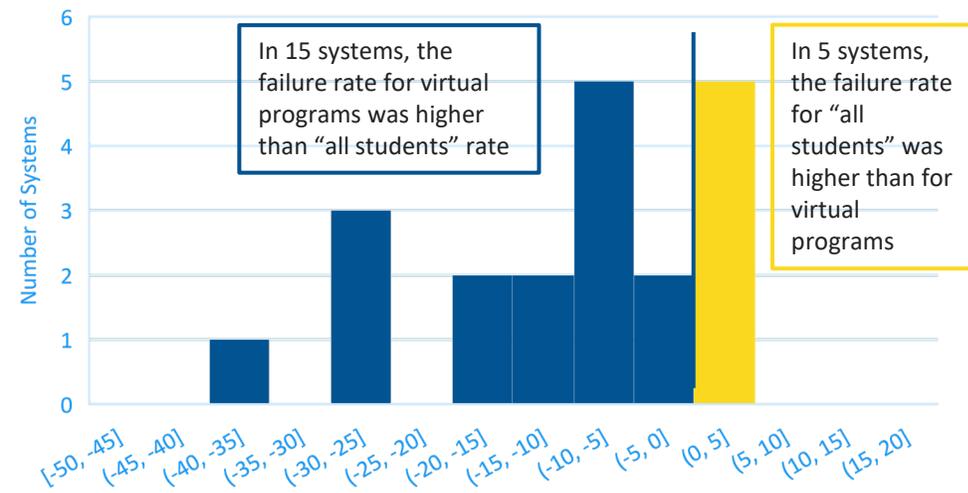
Note: One system did not meet the reporting requirements in English, Math, and Science.

Course Failure Rate Comparison

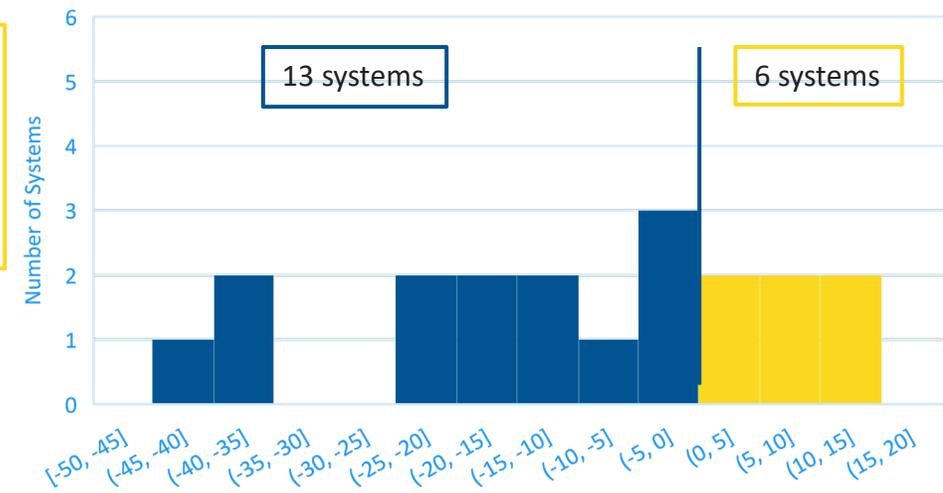
In nearly all systems, **course failure rates were higher for virtual students**, by between 1 and 45 percentage points or more.

On average, across all systems, grade levels, and subjects the **failure rate was five points higher for virtual students.**

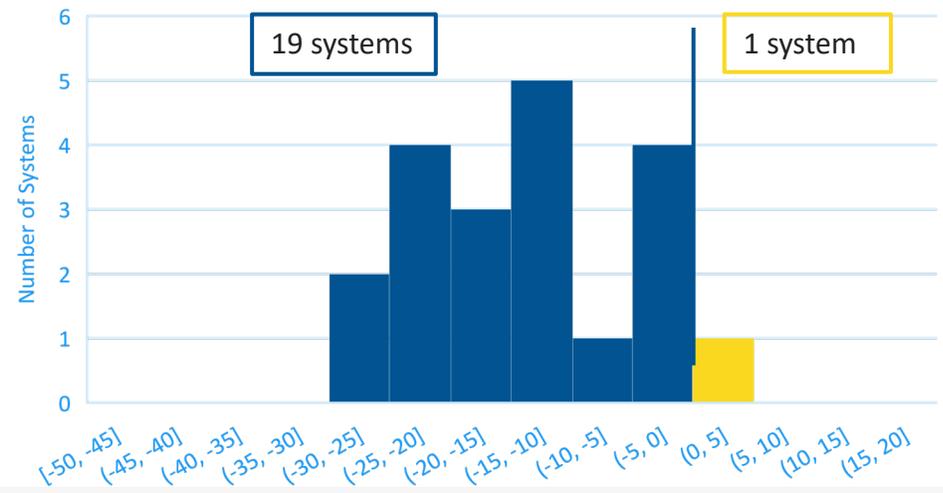
Middle School ELA Fail Rate Difference: All - Virtual



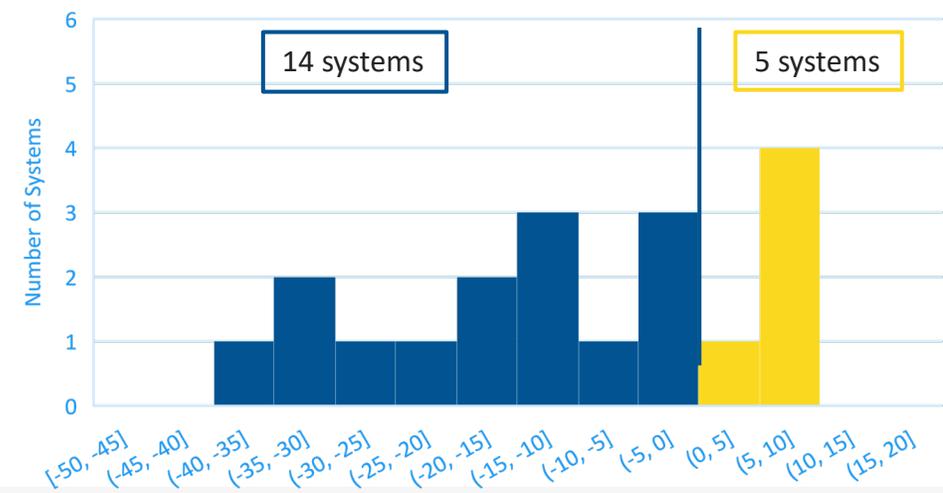
High School ELA Fail Rate Difference: All - Virtual



Middle School Math Fail Rate Difference: All - Virtual



High School Math Fail Rate Difference: All - Virtual





Analysis of Virtual Program Characteristics

1. Virtual Program Enrollment
2. Third Quarter Metrics
3. Virtual Program Attendance
4. Virtual Program Grades
- 5. Analysis of Virtual Programs**
6. School System Practices
7. Lessons Learned

Analyzing Virtual Program Characteristics and Third Quarter Outcomes

Summary of Significant Results

Relationships between program type, instructional time, and failure rates

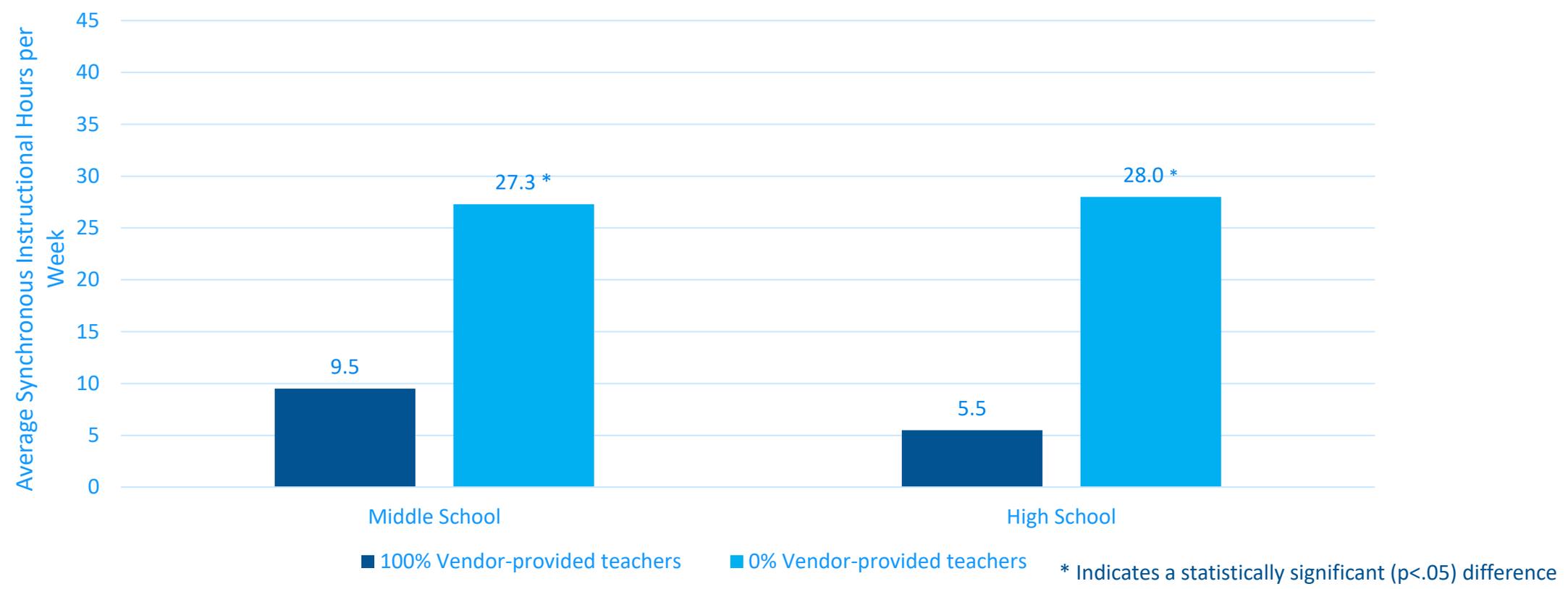
Average synchronous instructional time in middle and high school for systems with 100% vendor-provided teachers was **significantly lower** than systems with no vendor-provided teachers.

More synchronous instructional time for virtual students was associated with a **significantly lower** course failure rate in middle school ELA and Social Studies.

The average middle and high school course failure rates for systems with 100% vendor-provided teachers were **higher** than systems with no vendor-provided teachers.

Vendor-Provided Teachers and Synchronous Instructional Time

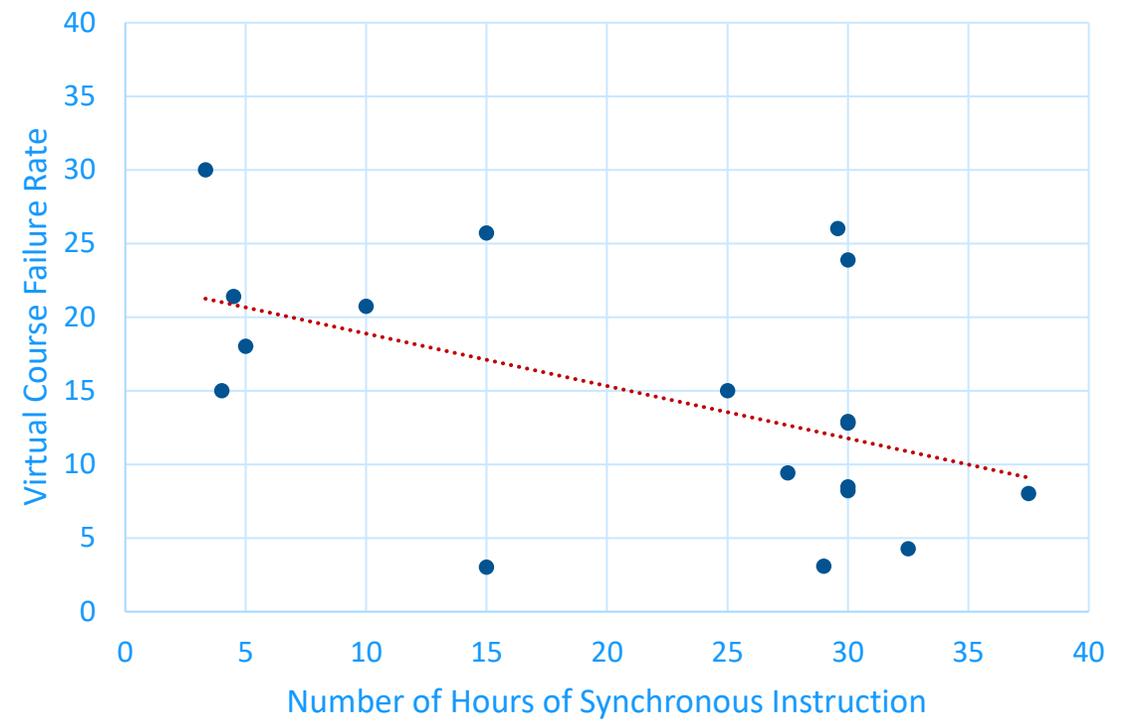
Average synchronous instructional time in middle and high school for systems with 100% vendor-provided teachers was **significantly lower** than systems with no vendor-provided teachers



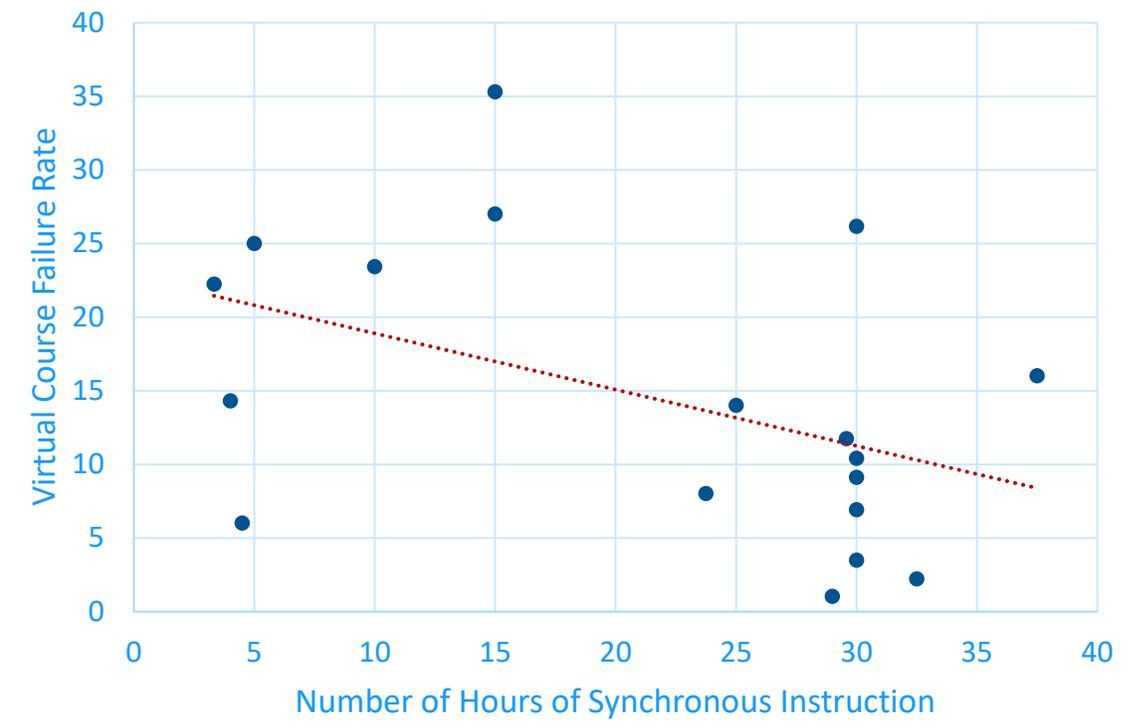
Synchronous Instructional Time and Course Failure Rate

More synchronous instructional time for virtual students was associated with a **lower course failure rate** in middle school ELA and Social Studies

Middle School ELA



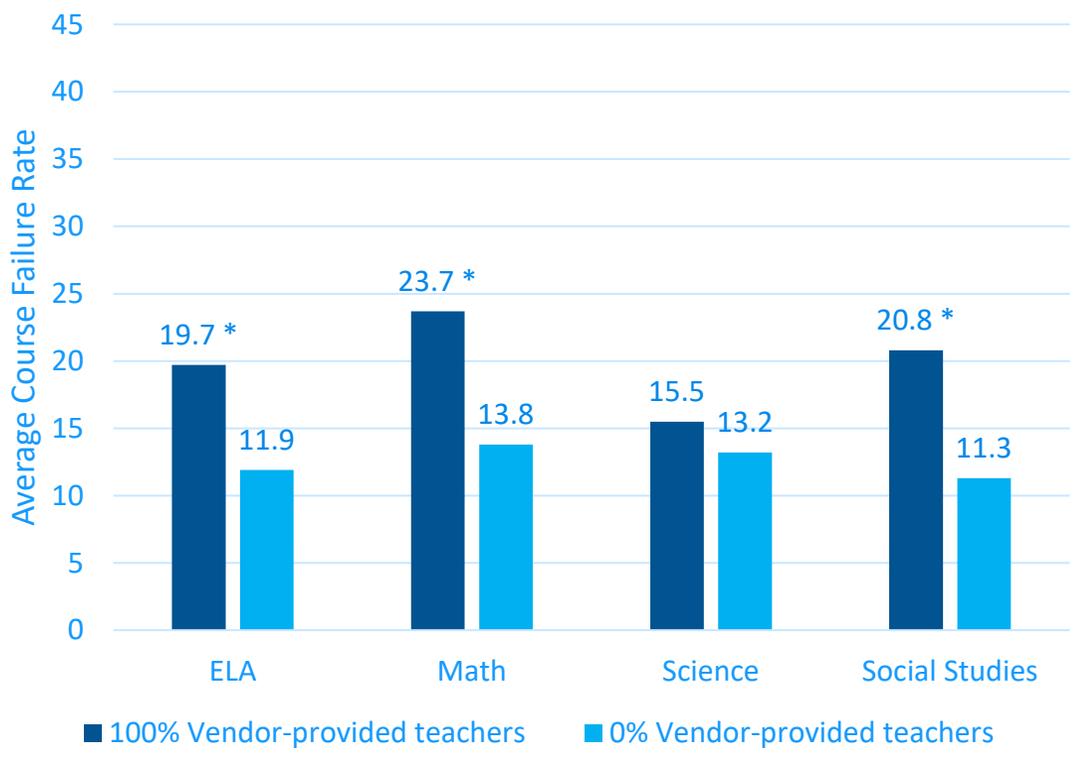
Middle School Social Studies



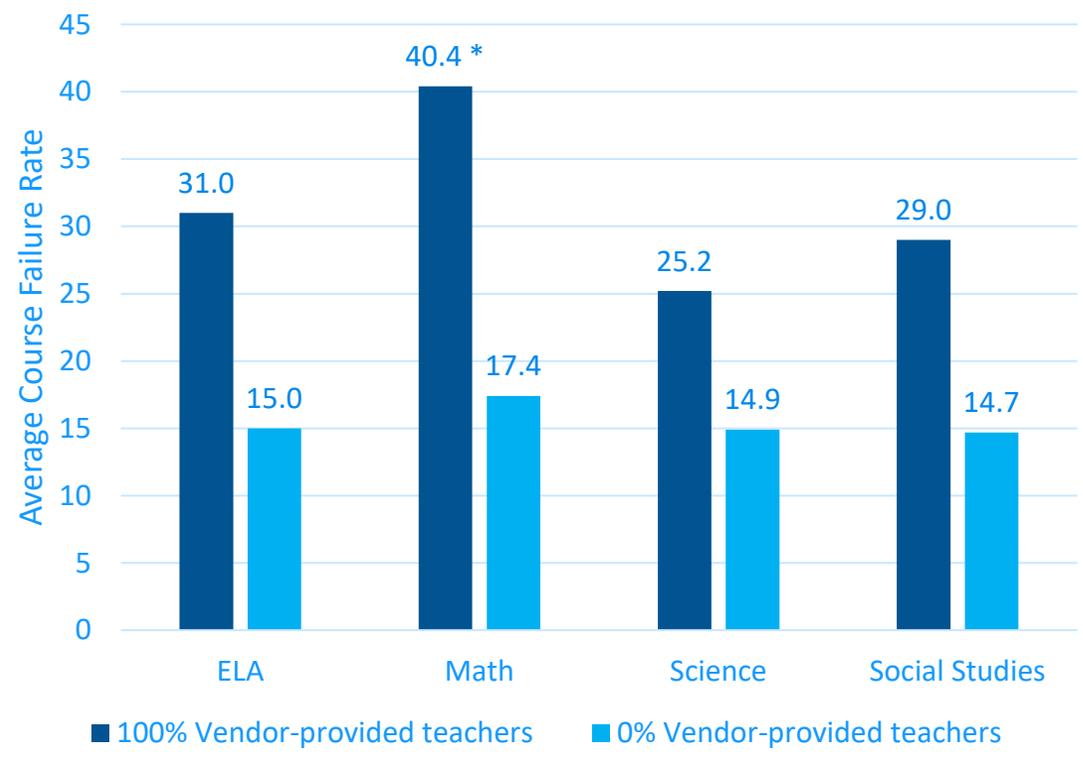
Vendor-Provided Teachers and Course Failure Rate

The average middle and high school course failure rates for systems with 100% vendor-provided teachers were **higher** than systems with no vendor-provided teachers

Middle School



High School



- 
1. Virtual Program Enrollment
 2. Third Quarter Metrics
 3. Virtual Program Attendance
 4. Virtual Program Grades
 5. Analysis of Virtual Programs
 - 6. School System Practices**
 7. Lessons Learned

School System Practices

Highlighting Virtual Programs

Washington County

Failure rates of virtual students decreased from quarter 2 to quarter 3

	<i>MIDDLE SCHOOL</i>				<i>HIGH SCHOOL</i>			
	English	Math	Science	Social Studies	English	Math	Science	Social Studies
Virtual Students Q2	10	32	25	8	16	26	29	10
Virtual Students Q3	4	19	17	2	7	17	8	6

Failure rates for virtual students were lower than all students in quarter 3

	<i>MIDDLE SCHOOL</i>				<i>HIGH SCHOOL</i>			
	English	Math	Science	Social Studies	English	Math	Science	Social Studies
All Students Q3	18	16	19	17	16	20	18	15
Virtual Students Q3	4	19	17	2	7	17	8	6

Washington County

- Targeted professional learning focused on increasing student engagement
- Prioritized and enforced student expectations regarding cameras and participation
- Required students to login daily to synchronous classes which mirror traditional schedules
- Established a Student Support Team
 - Increased communication with families regarding expectations and other options
- Secured additional funding for stipends to increase tutoring opportunities

Anne Arundel County

Failure rates of virtual students were unchanged from quarter 2 to quarter 3 in most subjects

	English	Math	Science	Social Studies	English	Math	Science	Social Studies
Q2 Virtual Students	3	0	0	1	3	5	4	11
Q3 Virtual Students	3	3	1	1	10	6	6	7

Failure rates for virtual students were lower than all students in quarter 3

	English	Math	Science	Social Studies	English	Math	Science	Social Studies
All Students Q3	4	4	4	4	11	11	10	9
Virtual Students Q3	3	3	1	1	10	6	6	7

Anne Arundel County

Structures established with the launch of the Virtual Academy to support **student participation, academic achievement, and social/emotional wellness.**

- Virtual Academy Staffing Practices
 - Multi-step rigorous interview process
 - Hosted an **on-boarding Innovation Summit** for teachers and staff
 - Developed and implements a virtual teaching and learning **professional development plan**
 - **Leadership regularly visits** virtual classes and provides feedback

Anne Arundel County

Virtual Academy Student Support

- Quarterly Student Success Meetings
- **Academic Coaching** sessions and regular office hours
- Integrates **Social Emotional Learning** opportunities into student schedules
- **Flexible grouping** to support learner needs and levels

Virtual Academy Best Practices

- Virtual **class size and schedule** mirrors face-to-face classes
- Students **required to attend** all daily synchronous courses and cameras must be on the entire class

Anne Arundel County

Modifications to the Virtual Academy were established or will be initiated in SY 22-23 to ensure students thrive:

- **Attendance monitoring** every 4 weeks to address chronic absenteeism
- Requirement of a **synchronous, scheduled session** for supplementary online vendor courses with **ongoing Academic Coaching**
- **Regular meetings with school and Central Office leadership** to proactively plan, collaborate on innovation, and problem solve in a feedforward fashion



1. Virtual Program Enrollment
2. Third Quarter Metrics
3. Virtual Program Attendance
4. Virtual Program Grades
5. Analysis of Virtual Programs
6. Helping Students Succeed
7. **Lessons Learned**

Lessons Learned

Lessons Learned SY 21-22

Successful Online Students

School systems report successful online students:

- are **self-motivated** and **self-disciplined** (Kaler, 2011)
- **ask for help** when necessary (Kaler, 2011)
- meet the **requirements** of the program (i.e. **attendance, grades**) (Keaton and Gilbert, 2020)
- **manage and prioritize** their time (Keaton and Gilbert, 2020)
- were provided increased **synchronous learning opportunities** (Heppen, Clements, and Rickles, 2020)

Virtual Learning Roundtable

- Students, families, educators and district leaders from six local systems discussed their virtual learning experiences.
- Discussion questions and responses focused on various topics:
 - Virtual program admission and the selection process
 - Student successes and effective educators
 - Synchronous and asynchronous instruction and student engagement
- Recording of the discussion can be viewed at:

<https://www.youtube.com/watch?v=-Y4SHTOoeHs>

Virtual School



Virtual Roundtable

June 2 at 6 p.m. EST

Hosted by: Maryland State Board of Education
and Maryland State Department of Education

Facilitated by: State Board of Education
Member Jean Halle and State Superintendent of
Schools Mohammed Choudhury

Join us on YouTube live for a real-time discussion:
<https://youtu.be/-Y4SHTOoeHs>

Next Steps

- **Monitor** quarter four data and student scores on state exams
- Conduct a **program evaluation** and present a **report** on virtual learning
- Explore **legislation and/or regulations** regarding virtual learning
- Create a **playbook and compile resources** at the state-level to support and ensure the success of the local school system virtual programs

Local Education Agency Virtual Program Student Enrollment Data

Local School System	Student Enrollment in Grades K-5	Student Enrollment in Grades 6-8	Student Enrollment in Grades 9-12	Total Student Enrollment as of 4/11/2022	Enrollment Change from 1/27/2021 to 4/11/2022
Allegany	60	12	0	72	-14
Anne Arundel	163	200	171	534	-11
Baltimore City	536	318	434	1,288	-1
Baltimore County	1,130	792	855	2,777	-182
Calvert	73	88	58	219	-6
Caroline	0	13	11	24	-6
Cecil	68	106	121	295	-21
Charles	128	74	234	436	-28
Dorchester	0	9	14	23	12
Frederick	425	339	355	1,119	230
Harford	277	292	371	940	50
Howard	489	96	0	585	-10
Kent	0	0	14	14	0
Montgomery	1,214	664	799	2,677	-144
Prince George's	0	193	261	454	-9,651
Queen Anne's	0	20	19	39	3
Saint Mary's	70	113	128	311	-7
Somerset	0	0	13	13	1
Talbot	12	10	3	25	0
Washington	163	91	105	359	7
Wicomico	89	66	50	205	-34
Worcester	16	22	25	63	2
Total	4,913	3,518	4,041	12,472	-9,810