



Mohammed Choudhury
State Superintendent of Schools

TO: Members of the State Board of Education
FROM: Mohammed Choudhury, State Superintendent of Schools
DATE: December 6, 2022
SUBJECT: Local Education Agency Virtual Programs Update

PURPOSE:

To share information and quarter four data related to the approved virtual learning programs in Maryland's local education agencies (LEA) for school year 2021 - 2022.

BACKGROUND/HISTORICAL PERSPECTIVE:

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

EXECUTIVE SUMMARY:

An update will be provided on the fourth quarter virtual program attendance and demographics data. The metrics for the fourth quarter will be presented and compared to the data collected at the end of the third 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 a school system made to its virtual program. The presentation will conclude by summarizing lessons learned, in school year 2021- 2022, based on the data that was collected from semester one through semester four.

ACTION:

For information and discussion

ATTACHMENTS:

Virtual Programs Q4- Dec 2022. pptx
Virtual Program Enrollment Data- MP 4. pdf

Local Education Agency Virtual Programs Update

MARYLAND STATE BOARD OF EDUCATION | December 6, 2022

Presented By | Dr. Deann Collins




Presentation Highlights

1. Update on quarter 4 enrollment and demographic data.
2. Review the quarterly metrics data for quarter 4 and compare to quarter 3.
3. Spotlight an LEA virtual program.
4. Summarize lessons learned from 2021-2022.

PRESENTATION OUTLINE

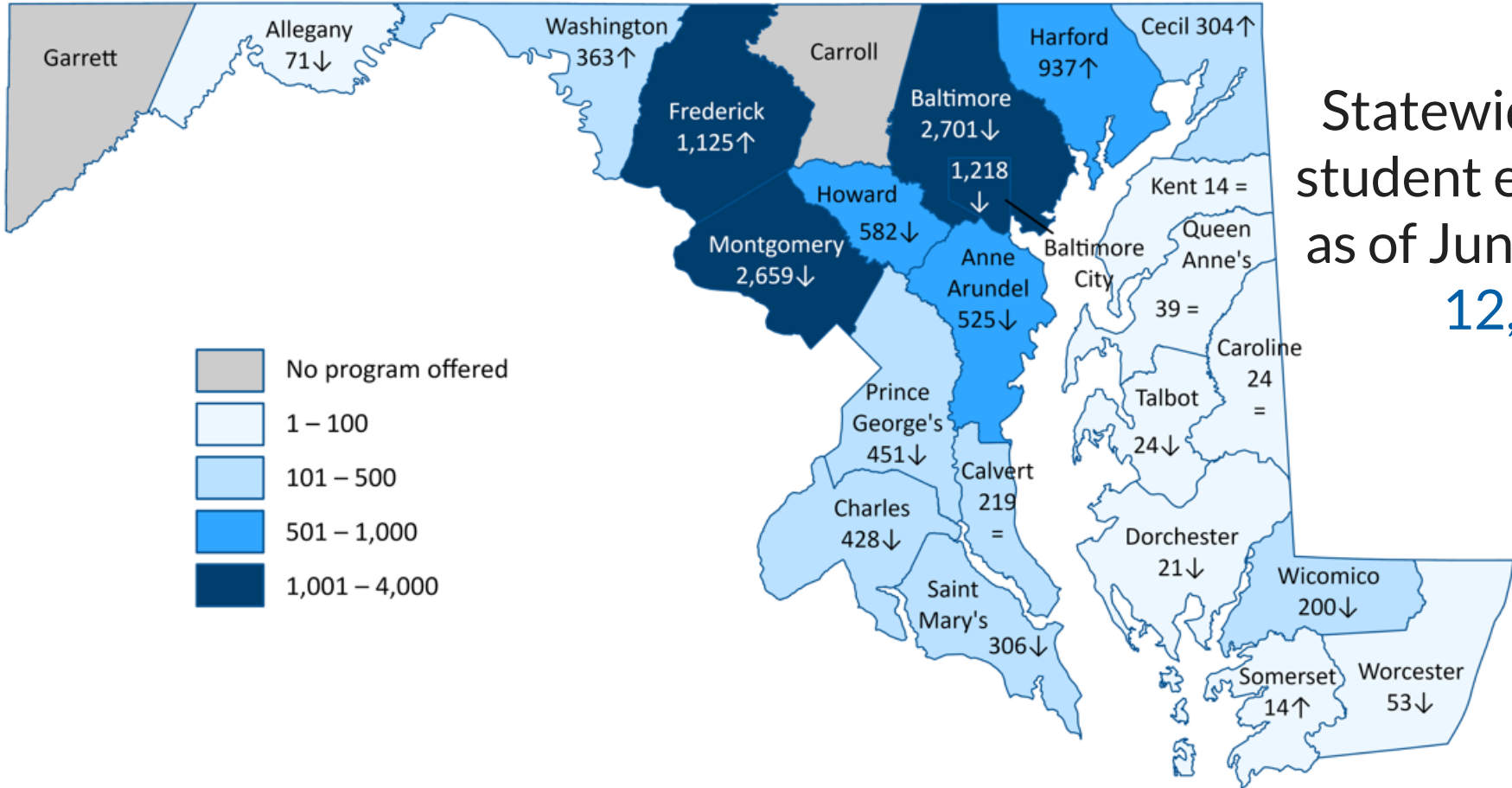
1. Virtual Program Enrollment
2. Fourth Quarter Metrics
3. Virtual Program Attendance
4. Virtual Program Grades
5. School System Spotlight
6. Lessons Learned

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1. **Virtual Program Enrollment**
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Virtual Program Enrollment

Virtual Program Enrollment Data

Virtual Program Enrollment I



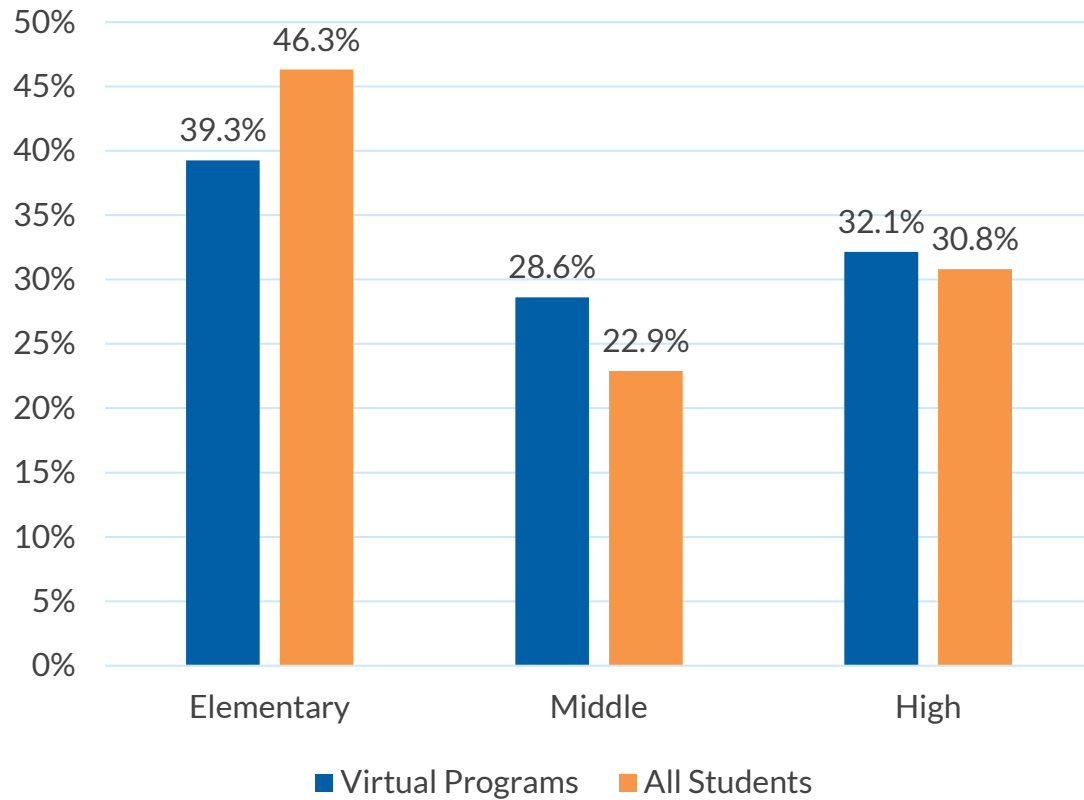
Statewide virtual student enrollment as of June 1, 2022:
12,277

NOTE: Arrows on the map represent changes in LEA enrollment numbers from quarter 3 to quarter 4. An equal sign means the enrollment remained the same.

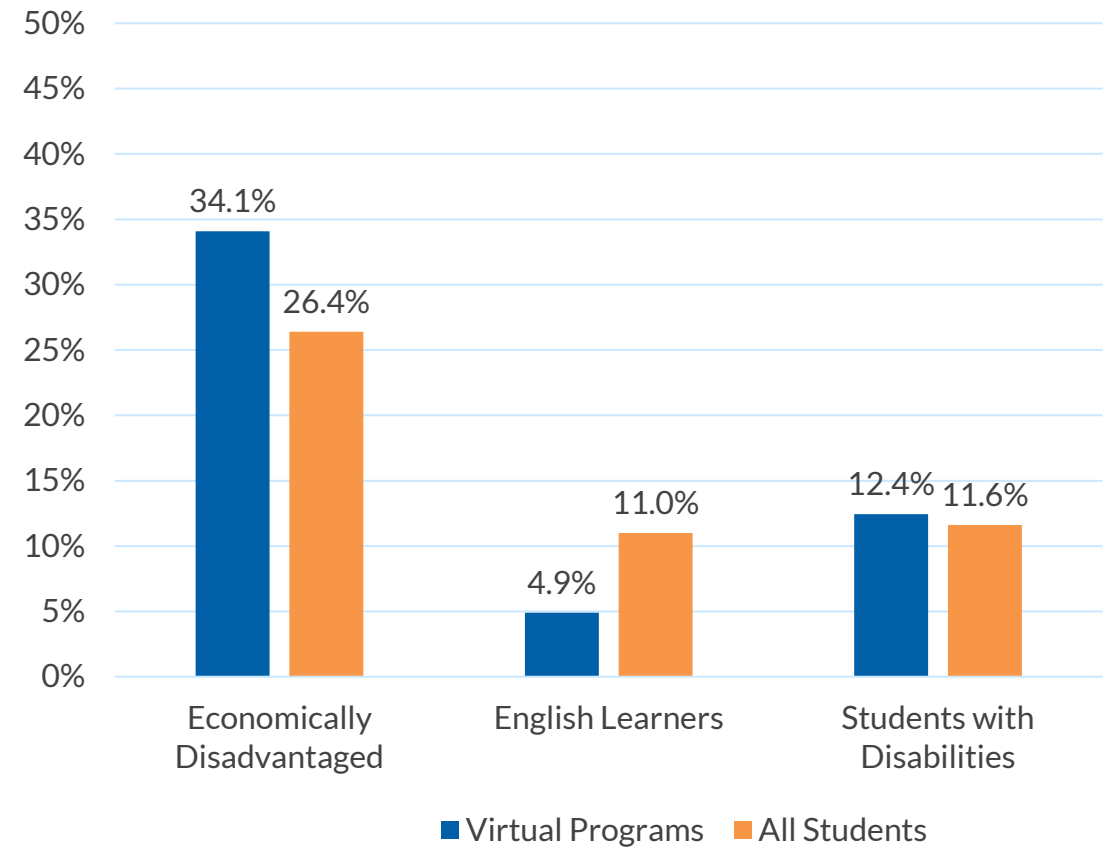
Data source: MSDE Full-time Virtual Programs Student File Submission, June 2022

Virtual Program Enrollment II

Grade Level

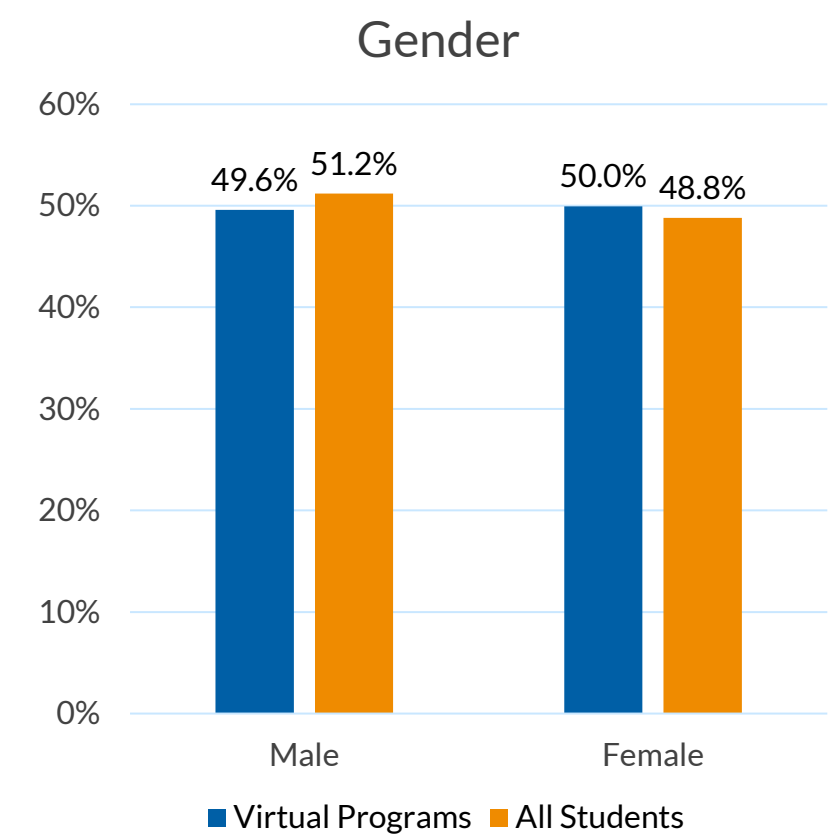
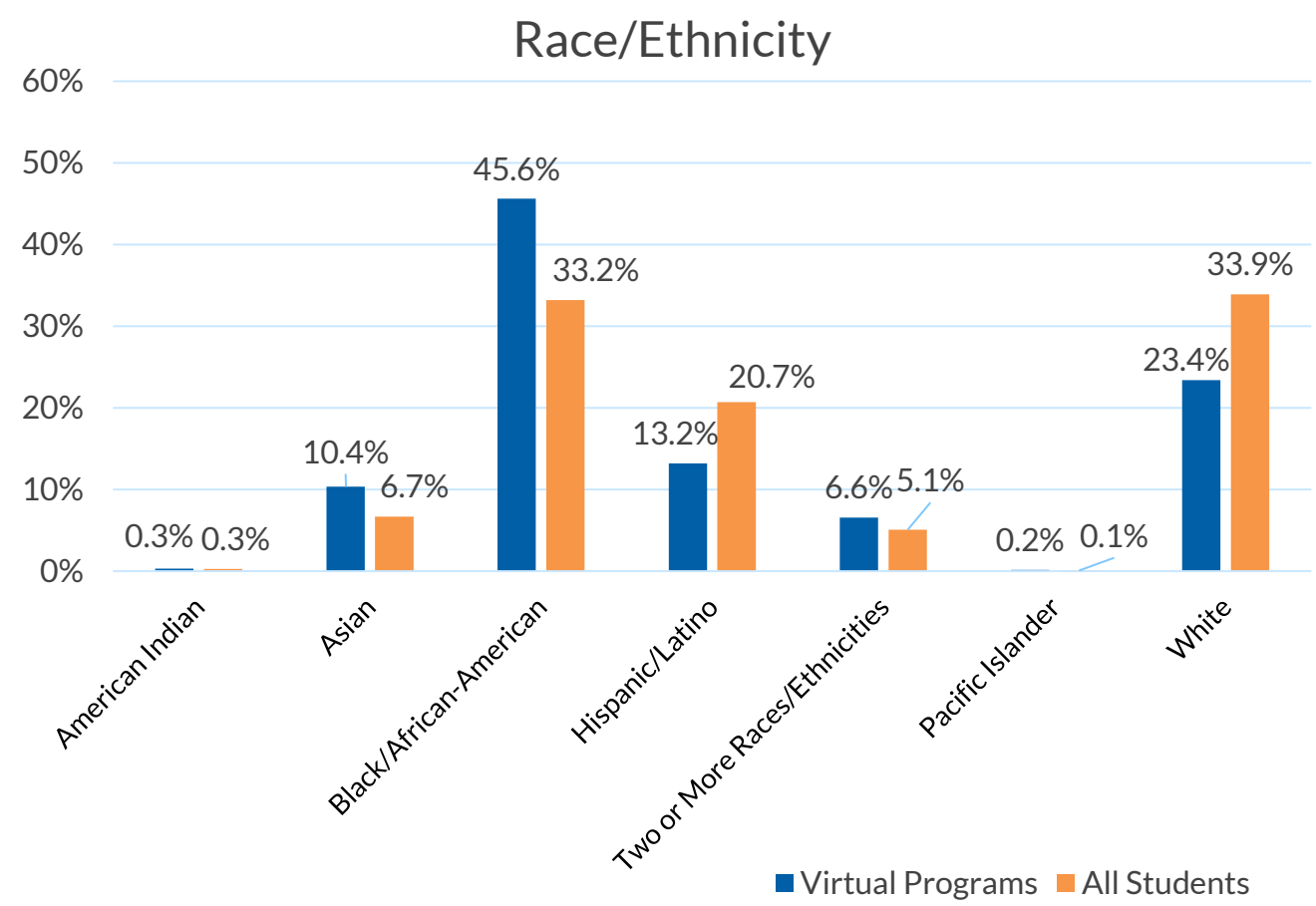


Student Group




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

Virtual Program Enrollment III



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

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Fourth Quarter Metrics

Reviewing the Fourth Quarter Metrics

Quarterly Metrics: Overview

- Fourth quarter LEA-level data was collected from June 14th to August 1st.
- The last day of the fourth quarter varied by LEA, from June 7th to June 24th.
- **21 systems are included in the results.**
 - Results represent 100% of students enrolled in fully 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)	Median Range	22 8-26	22 8-26
Middle (6-8)	Median Range	23 12-25	25 11-34
High (9-12)	Median Range	18 2-28	23 6-29

Virtual Program Instructional Time

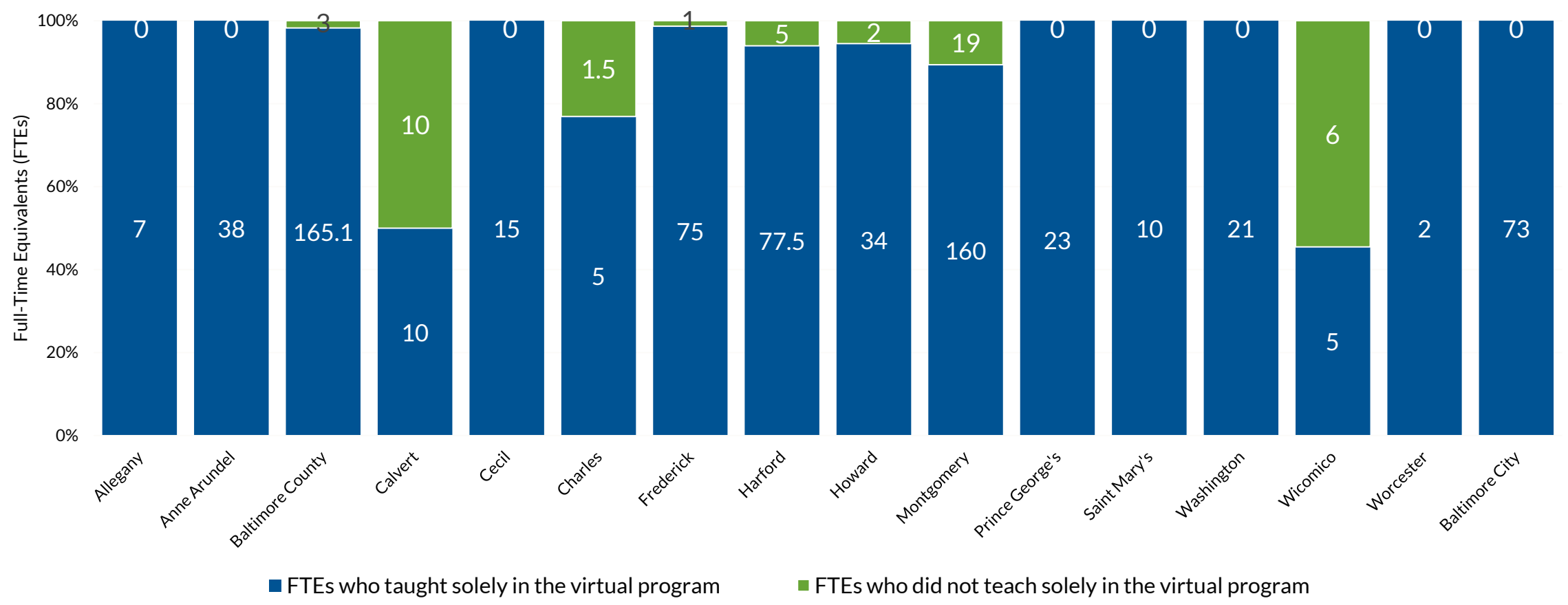
Synchronous instructional time varied widely across LEAs.

Grade Level	Measure	Instructional Days during the Second Quarter	Synchronous Instructional Hours per Week*
Elementary (K-5)	Mean Range	45 43-50	28.6 13-37.5
Middle (6-8)	Mean Range	45 43-50	27.0 3.3-37.5
High (9-12)	Mean Range	45 43-50	15.0 1.25-37.5

* In a typical five-day week

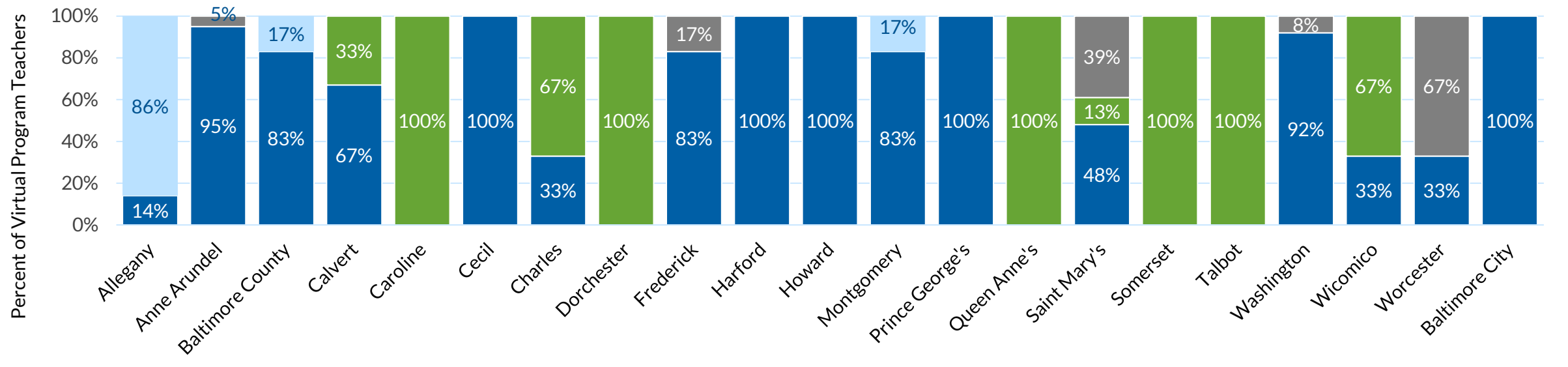
Virtual Program Teacher Assignment by LEA

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	8.1	8.0	8.7
LEA Minimum Hours of PD	0	0	0
LEA Maximum Hours of PD	27	27	28


Note: Data do 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	10	10	8
Virtual Asynchronous	9	10	7
In person	9	8	4
Self-service/As needed	11	12	9
Total LEAs reported	14	13	11

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

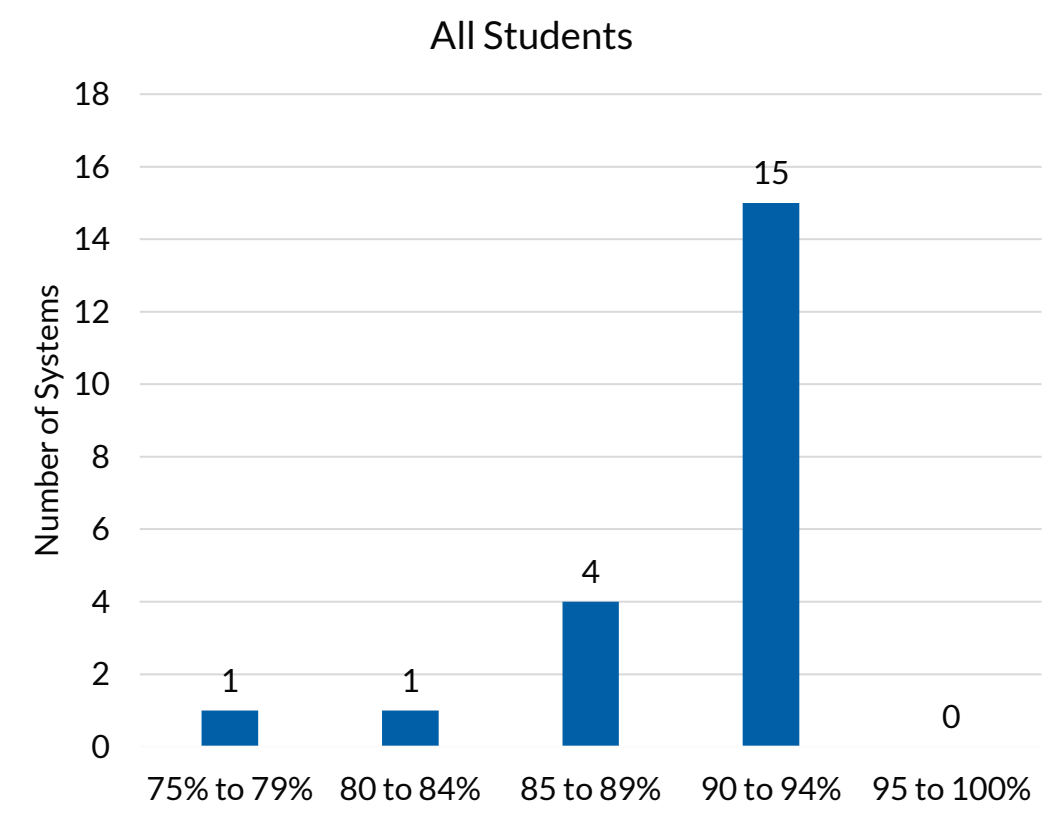
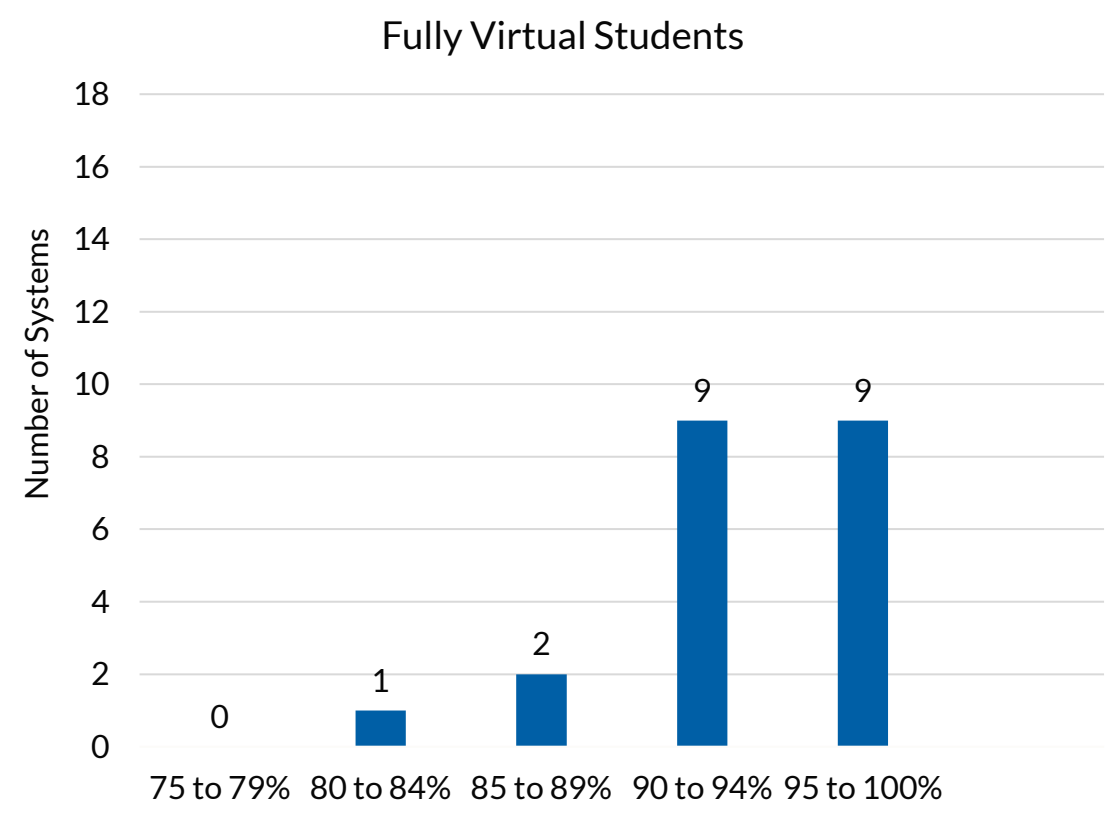
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Virtual Program Attendance

Reviewing Fourth Quarter Virtual Program Attendance

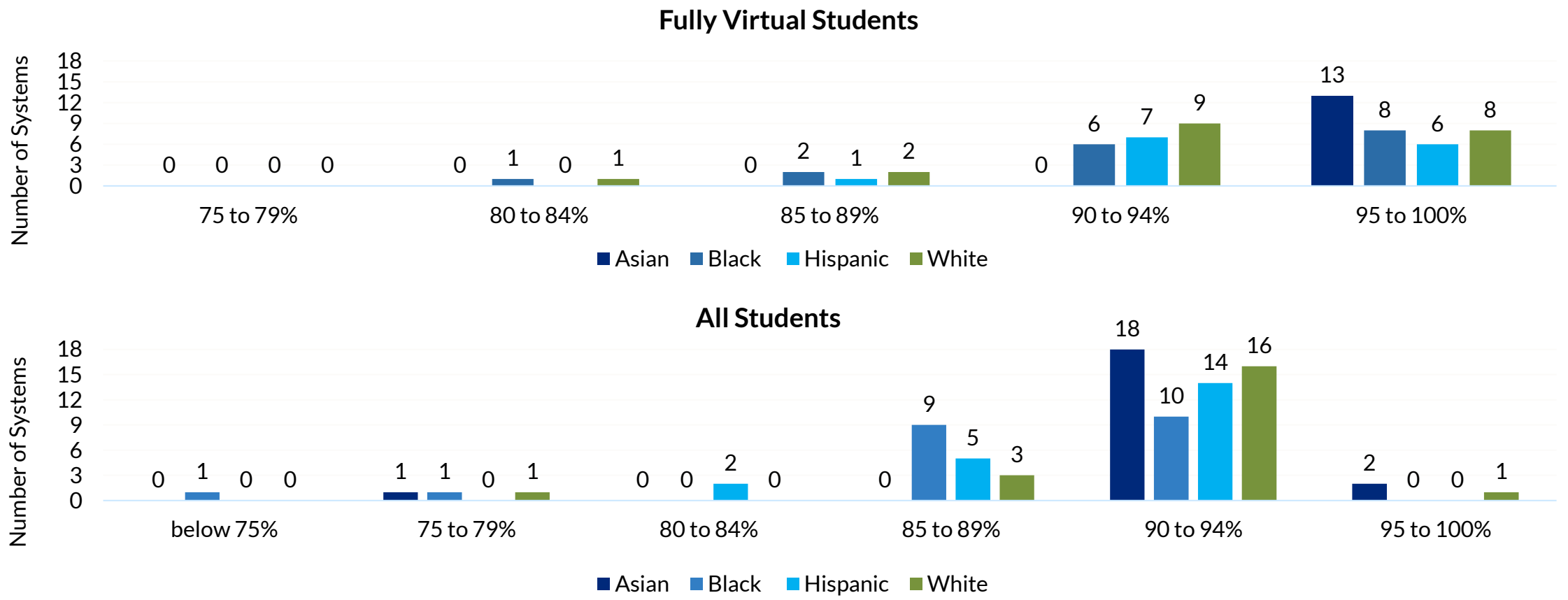
Fourth Quarter Attendance, All Students

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



Fourth 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

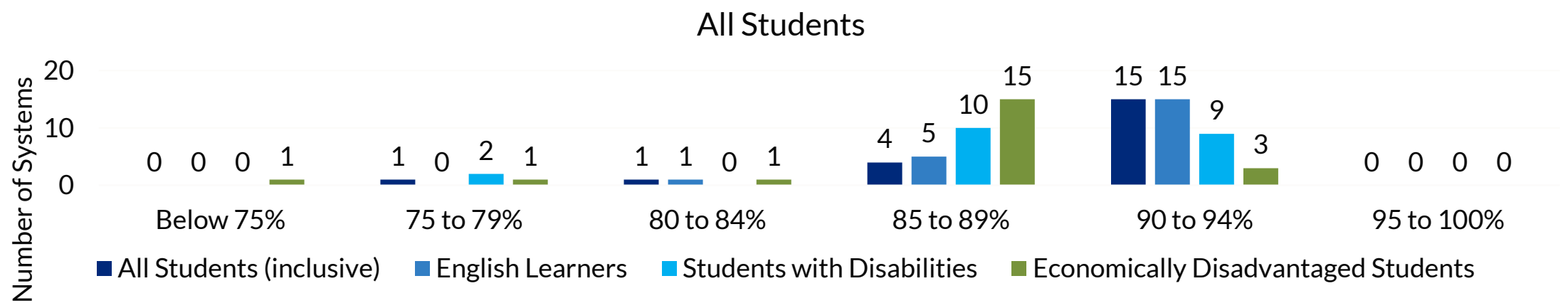
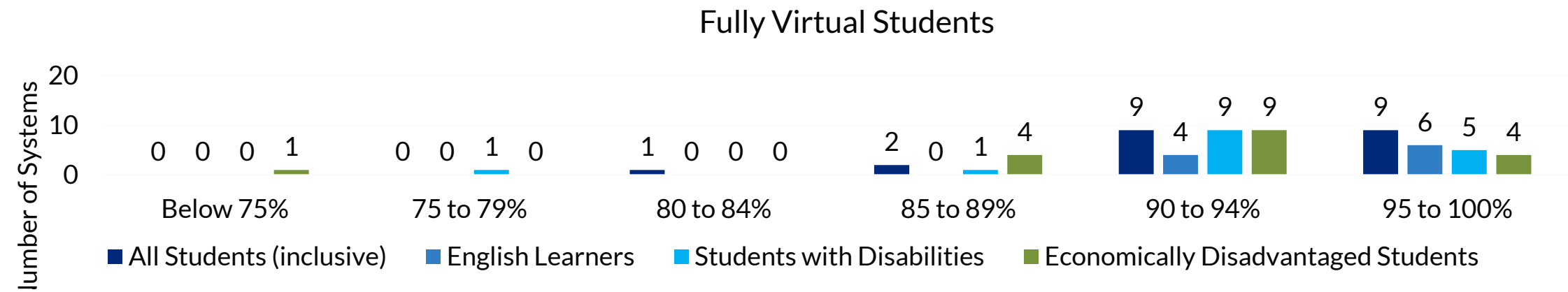
More systems had a decrease in the attendance rate for virtual students from Quarter 3 to Quarter 4 than systems that had an increase.

Change in virtual program attendance rate	All students	Asian	Black/African-American	Hispanic/Latino	White
Increase of more than 2 percentage points	3	1	1	0	2
Increase of 1-2 percentage points	4	1	3	2	5
No change	4	3	5	3	2
Decrease of 1-2 percentage points	8	7	7	7	10
Decrease of more than 2 percentage points	2	1	1	1	1

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

Fourth Quarter Attendance by Student Group

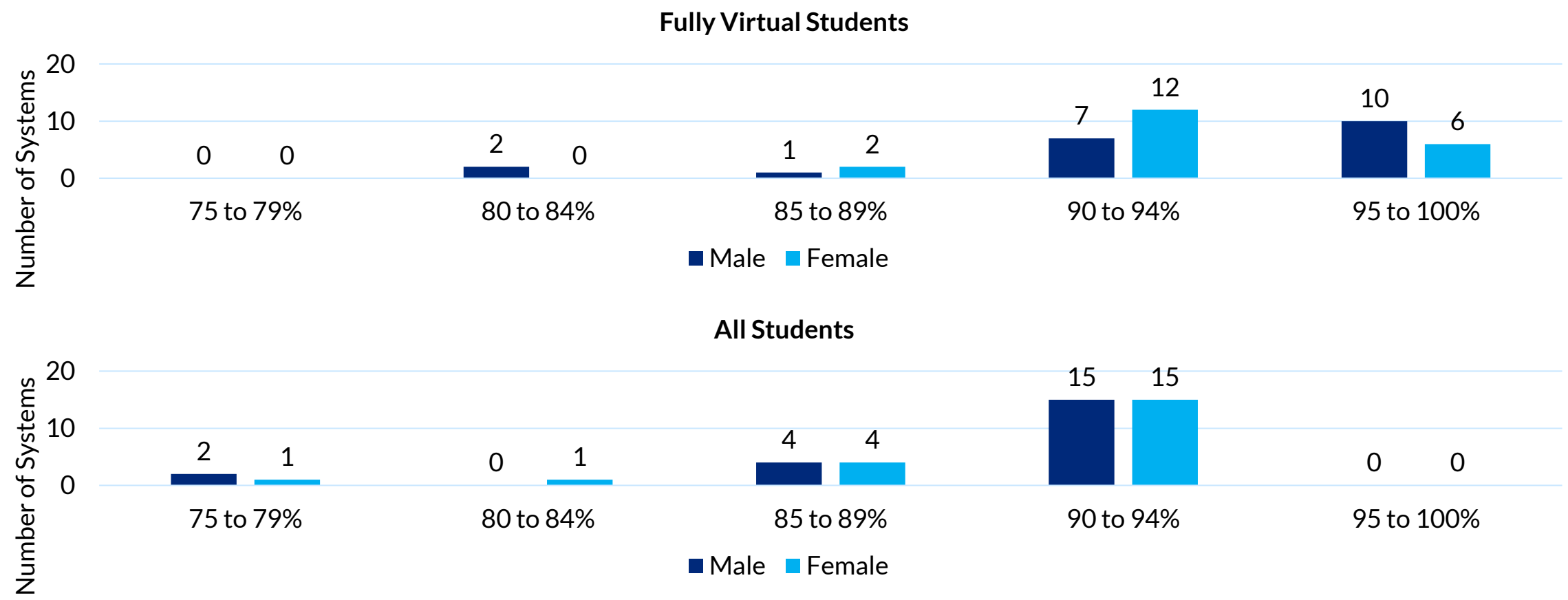
More systems reported higher attendance for fully virtual students than for all students.



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

Fourth 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 a **decrease in attendance rate** for virtual students from Quarter 3 to Quarter 4 than systems that had an increase, but this differed by student group.

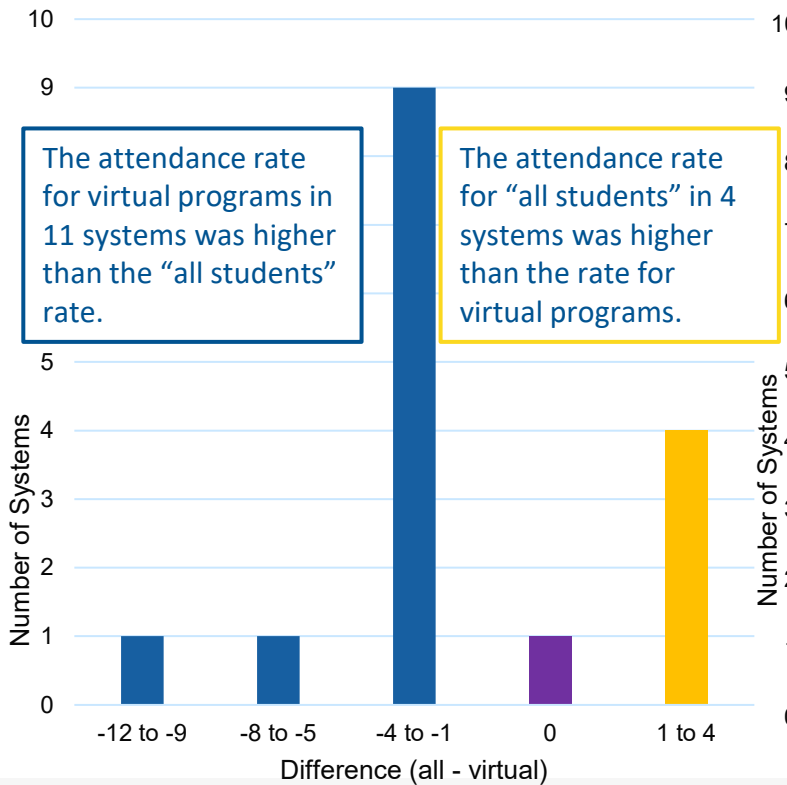
Change in virtual program attendance rate	English Learners	Students with Disabilities	Economically Disadvantaged	Male	Female
Increase of more than 2 percentage points	1	1	1	3	3
Increase of 1-2 percentage points	3	3	2	9	4
No change	3	2	3	3	3
Decrease of 1-2 percentage points	2	8	6	2	9
Decrease of more than 2 percentage points	1	1	6	3	1

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

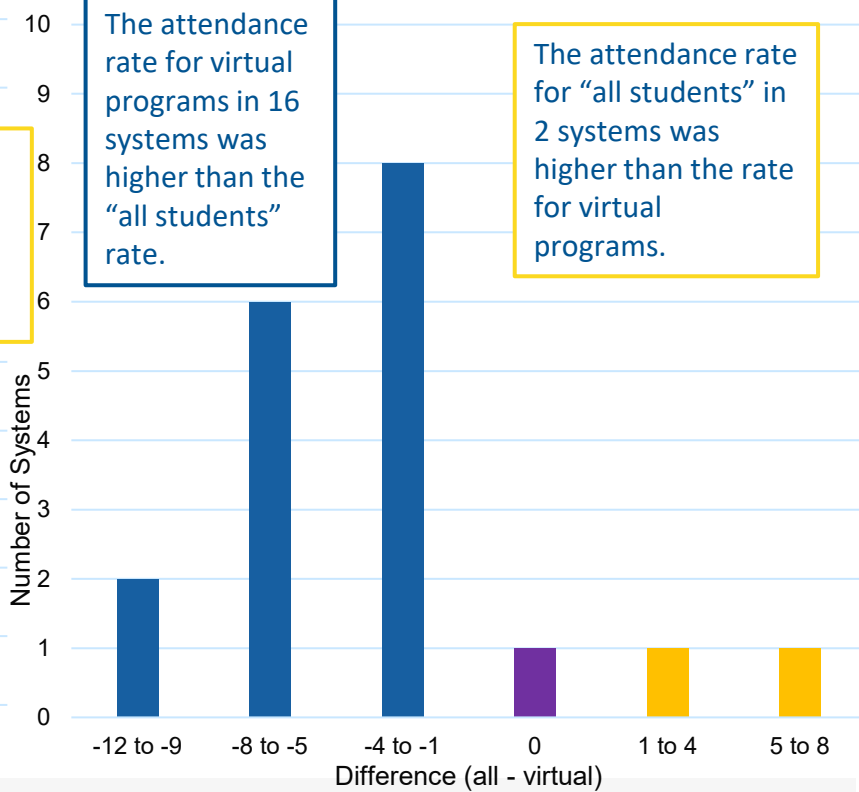
Attendance Rate Comparison

In nearly all systems, attendance rates were higher for virtual students at all grade levels, by up to 16 percentage points. Overall, the attendance rate for virtual students was four percentage points higher than it was for all students.

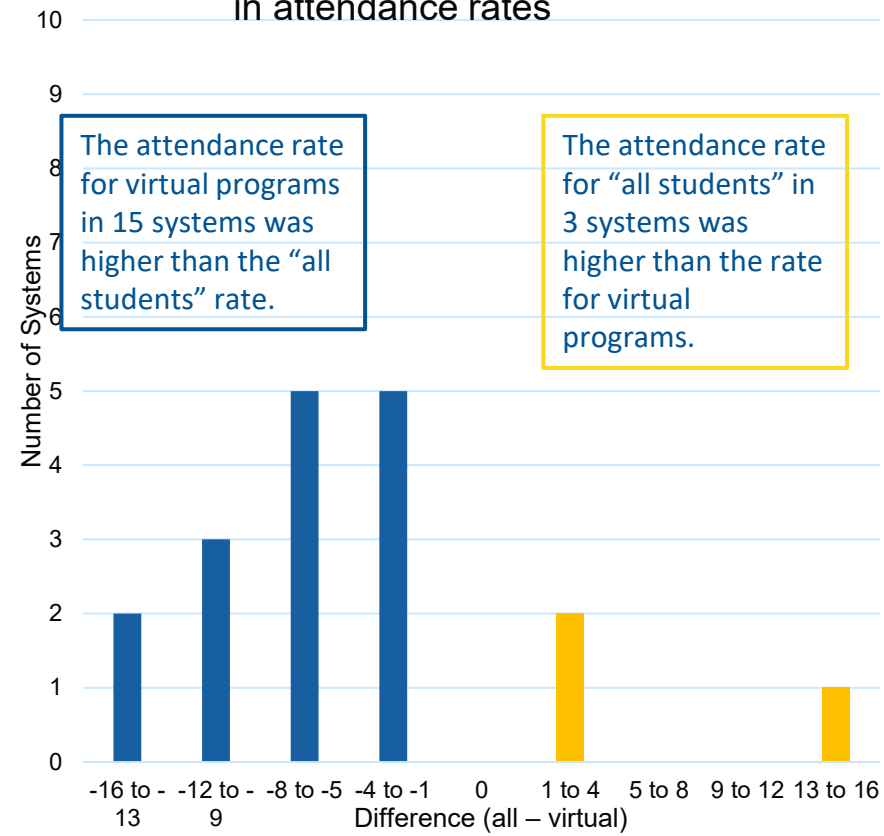
Elementary school difference in attendance rates




Middle school difference in attendance rates



High school difference in attendance rates



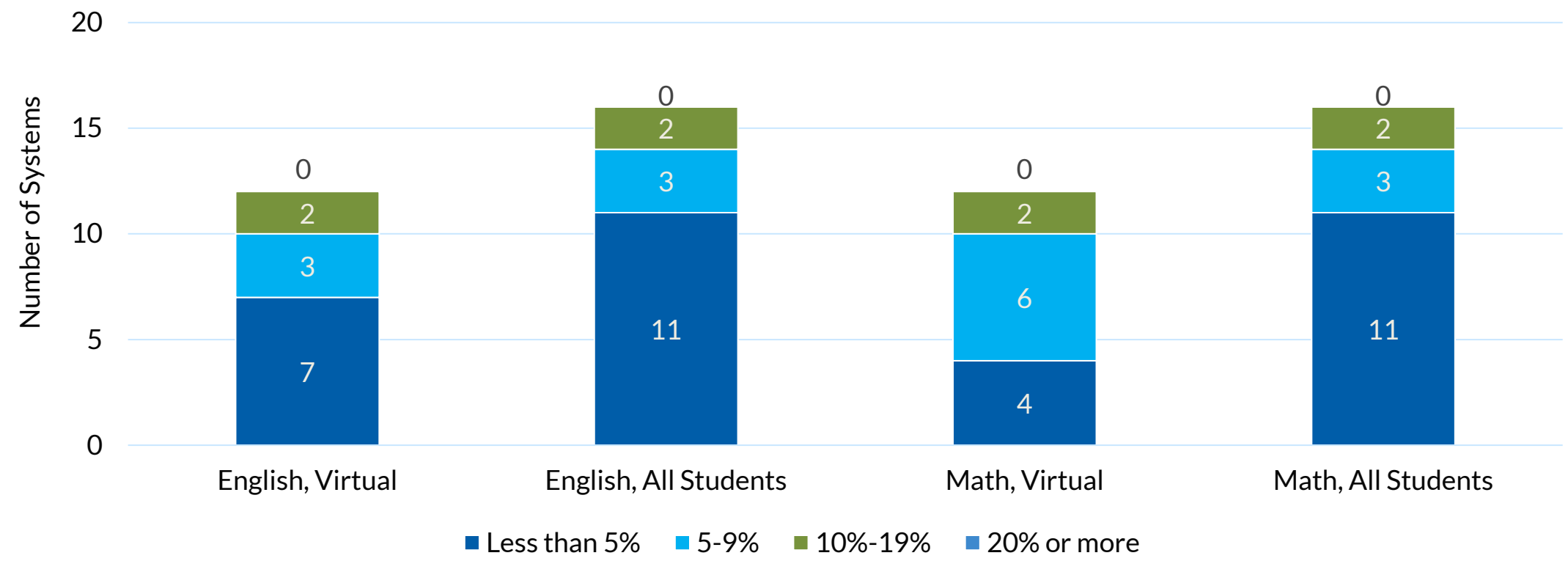
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Virtual Program Grades

Reviewing Fourth Quarter Virtual Program Grades

Fourth Quarter Course Grades, Grades K-5

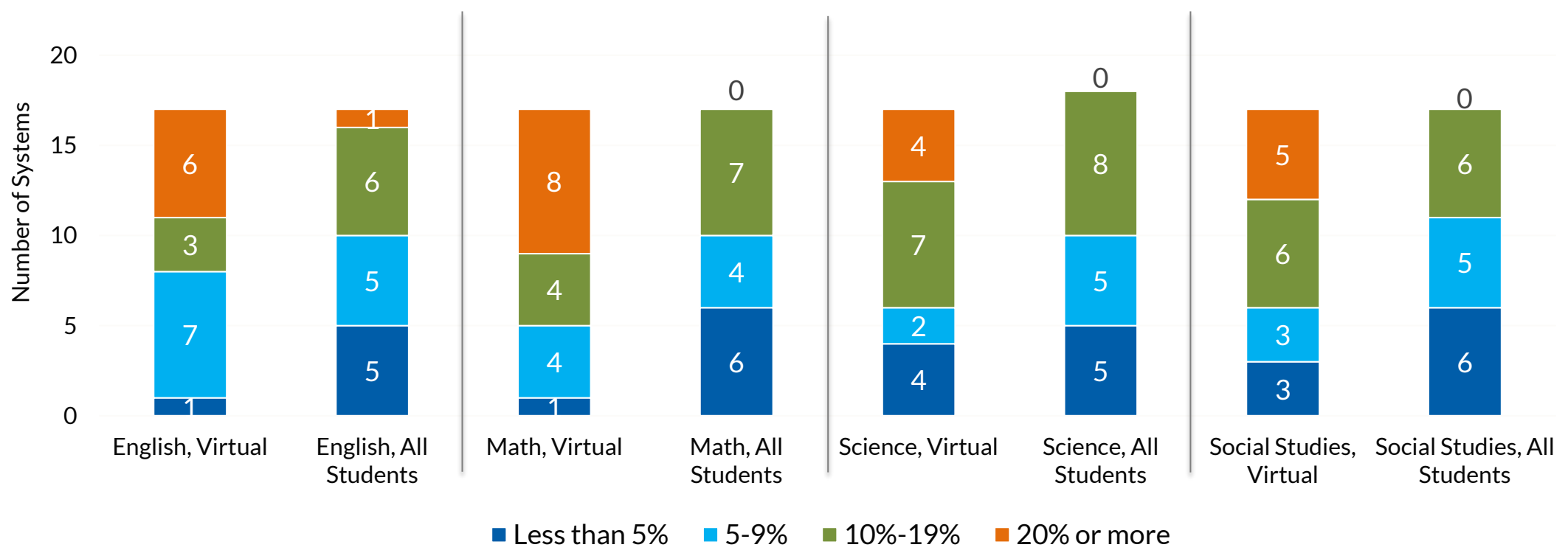
More systems reported higher failure rates for fully virtual elementary students than for all students.



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

Fourth Quarter Course Grades, Grades 6-8

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



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

Change in Grades I

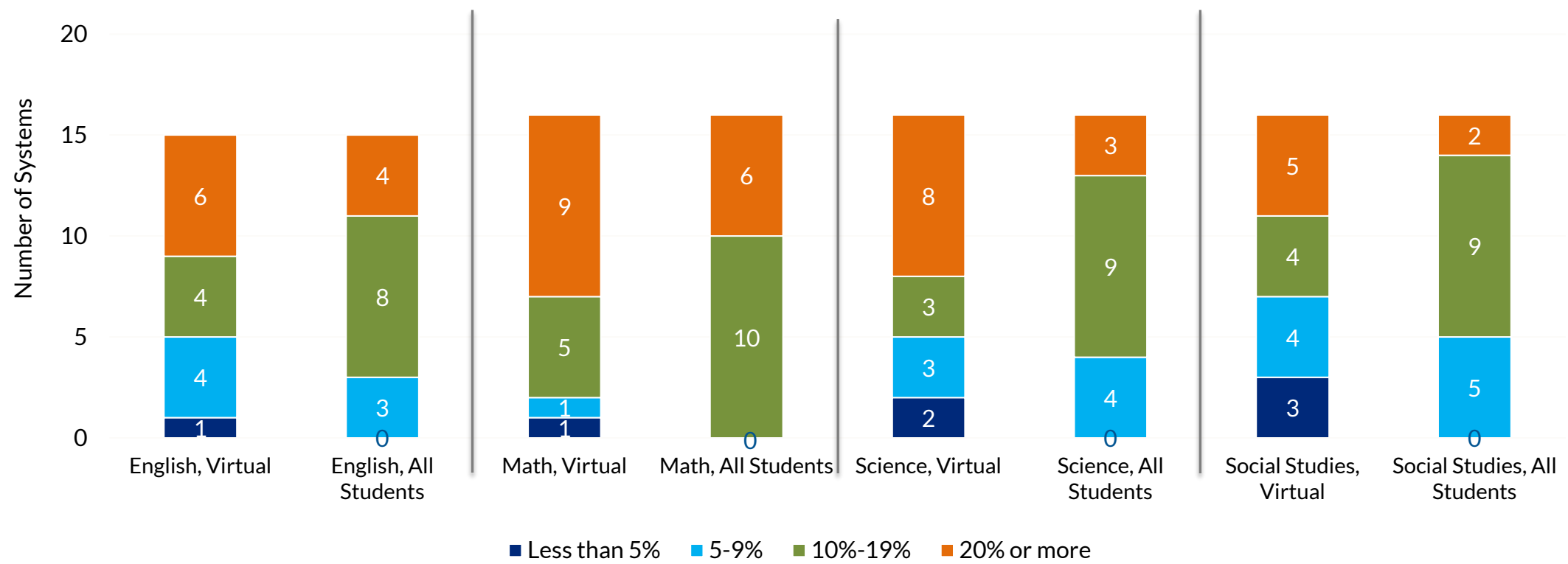
A similar number of systems had increases and decreases in failure rates for virtual students from Quarter 3 to Quarter 4.

Change in virtual program failure rate	ELEMENTARY SCHOOL		MIDDLE SCHOOL			
	English	Math	English	Math	Science	Social Studies
Decrease of more than 10 percentage points	0	0	1	0	2	1
Decrease of 3-10 percentage points	2	4	5	6	4	4
Increase/decrease less than 3 percentage points	9	6	4	6	4	5
Increase of 3-10 percentage points	1	3	5	2	7	7
Increase of more than 10 percentage points	0	0	2	3	0	0

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

Fourth Quarter Course Grades, Grades 9-12

Systems reported higher failure rates for fully virtual students than for all students in high school.



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

Change in Grades II

Most systems reported **decreased failure rates** for virtual high school students from Quarter 3 to Quarter 4 in most subjects.

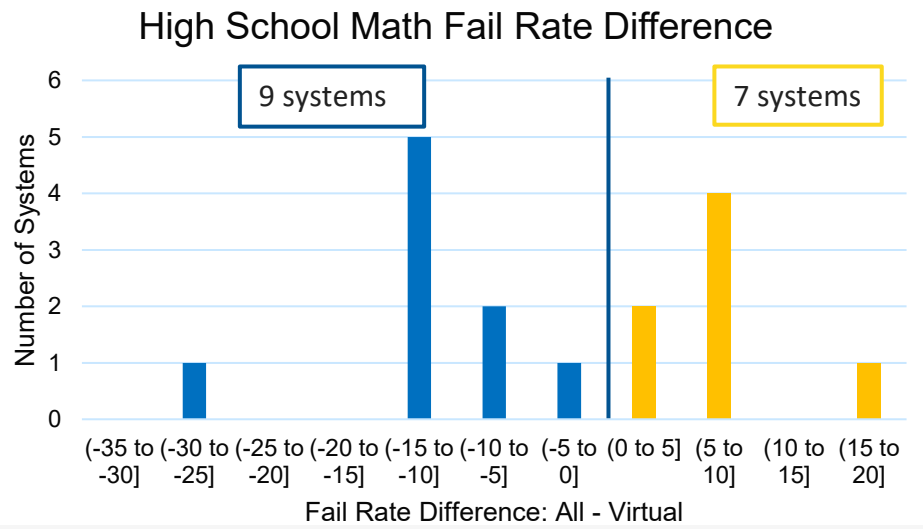
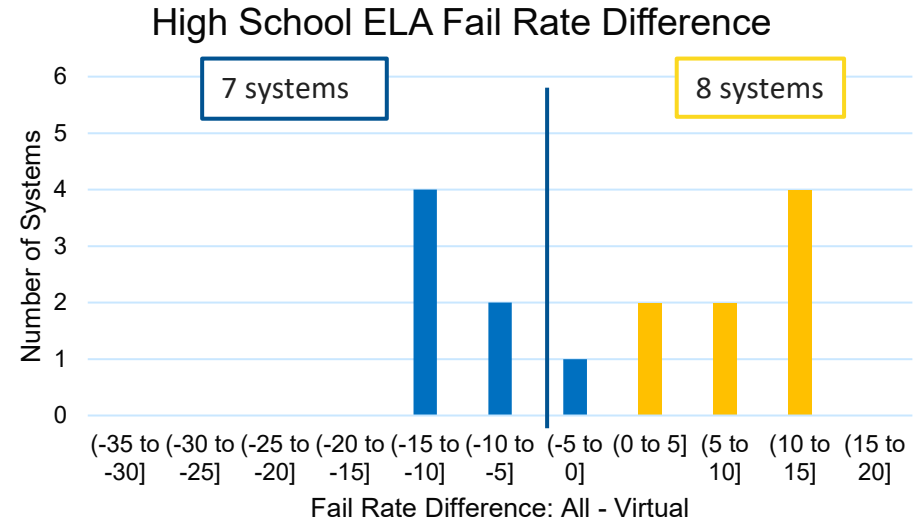
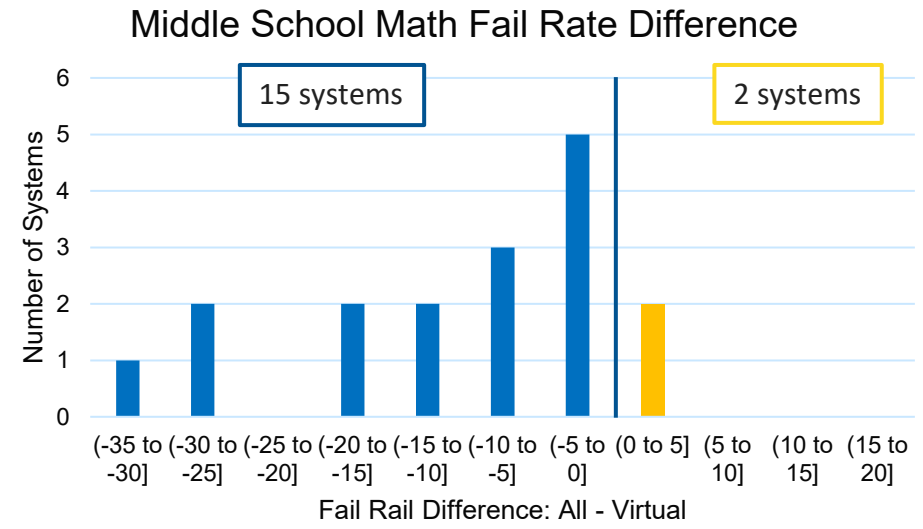
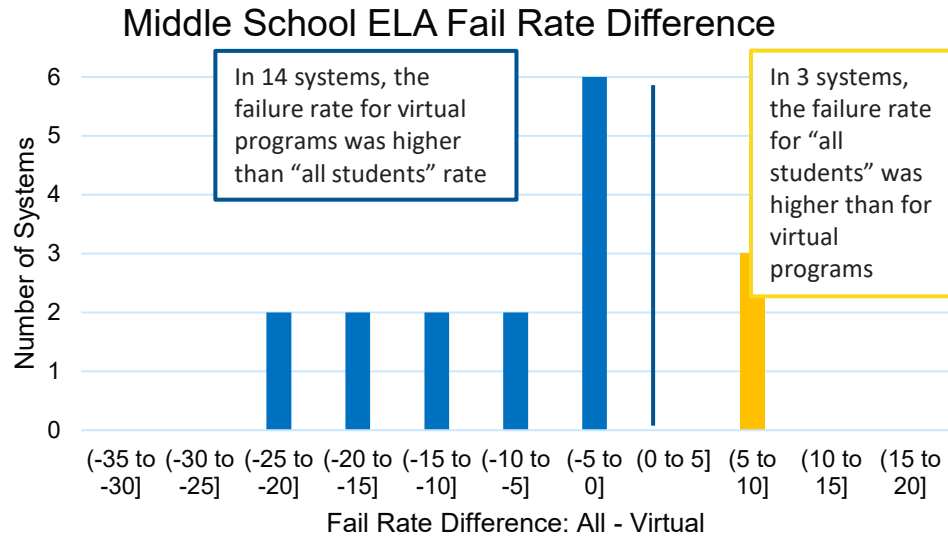
Change in virtual program failure rate	HIGH SCHOOL			
	English	Math	Science	Social Studies
Decrease of more than 10 percentage points	3	5	3	4
Decrease of 3-10 percentage points	3	3	1	2
Increase/decrease less than 3 percentage points	5	3	7	7
Increase of 3-10 percentage points	4	4	3	3
Increase of more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


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

Course Failure Rate Comparison (All vs Virtual)

For middle school ELA and math, **course failure rates were higher rather than lower for fully virtual students** in more systems, by between 1 and 35 percentage points.

For high school ELA and math, some systems had higher course failure rates and others had lower course failure rates for fully virtual versus all students.



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School System Spotlight

Sharing School System Virtual Programs

Wicomico County Virtual Program: Data Results

Failure rates of virtual students substantially decreased from quarter 3 to quarter 4 in all subjects.

	Elementary		Middle				High			
	English	Math	English	Math	Science	Social Studies	English	Math	Science	Social Studies
Q3 Virtual Students	3.8%	8.7%	25.7%	26.5%	18.8%	35.3%	29.6%	29.2%	26.9%	33.3%
Q4 Virtual Students	3.1%	7.2%	18.6%	20.0%	7.1%	17.7%	4.8%	14.3%	8.7%	14.3%

Failure rates of virtual students were lower than all students in quarter 4 for some subjects.

	Elementary		Middle				High			
	English	Math	English	Math	Science	Social Studies	English	Math	Science	Social Studies
Q4 All Students	7.4%	10.9%	16.5%	14.4%	12.8%	14.3%	16.6%	18.6%	16.9%	17.1%
Q4 Virtual Students	3.1%	7.2%	18.6%	20.0%	7.1%	17.7%	4.8%	14.3%	8.7%	14.3%

Wicomico County Virtual Program: Overview

- Required daily synchronous instruction in the elementary program by Wicomico educators.
- Utilized the **same curriculum and pacing** in the virtual program as in the traditional classroom allowing for **seamless transitions**.
- Permitted **students from other LEAs** to enroll in Wicomico's elementary virtual program.
 - **Twelve (12) Talbot County students** participated in the virtual program.
 - Students **remain enrolled** in their home district.
 - Wicomico **provides the required technology**, instructional materials, and supports.
 - **Required attendance and participation** in all synchronous classes via conferencing software.

Wicomico County Virtual Program: Data Driven Decision Making

- Admitted students who would not originally have been selected - due to fears over rising COVID-19 infections.
- Collected and analyzed quarter one and two data comparing virtual students to students in traditional classrooms.
 - **Data points:** tests, reading and mathematics iReady scores (pre and post COVID-19)
 - Direct correlation (at all grade levels): virtual students who **read on or slightly below grade level** were **more successful in virtual learning** than students reading below grade level
- **Modified current program** based on data analysis and **refined academic qualifiers** for virtual school admittance.

Wicomico County Virtual Program: Strategic Scheduling

Elementary Schedule:

- Morning:
 - Core subjects- synchronous classes
- Mid Day:
 - Lunch and recess
- Afternoon:
 - Specials (i.e., Art, Music, Physical Education)
 - Synchronous small group instruction
 - Social Studies and Science educators assigned reading groups

Wicomico County Virtual Program: Family Engagement

- Met regularly with families to **discuss student's test scores, collected data points and attendance** from quarter one and quarter two.
- **Created a plan** to assist parents and students with the transition back to a traditional classroom.
 - Discussed established **safety measures and current metrics** to ease fears.
 - Set-up **tours of the home school** for the parents and students.
 - **Arranged meetings** with the teachers and administrators.
 - Discussed the **curriculum and pacing** with families to reassure them that the transition would be seamless.
- Invited students to return to home school to **complete virtual work** in study halls.

Washington County Virtual Program: Data Results

Failure rates of virtual students decreased from quarter 3 to quarter 4 in most subjects.


	Middle				High			
	English	Math	Science	Social Studies	English	Math	Science	Social Studies
Q3 Virtual Students	4.3%	19.4%	17.0%	2.2%	6.6%	17.1%	7.6%	5.8%
Q4 Virtual Students	12.0%	15.0%	16.0%	8.0%	5.0%	11.0%	6.0%	2.0%

Failure rates of virtual students were lower than all students in quarter 4 for most subjects.

	Middle				High			
	English	Math	Science	Social Studies	English	Math	Science	Social Studies
Q4 All Students	20.0%	19.0%	19.0%	19.0%	18.0%	21.0%	19.0%	17.0%
Q4 Virtual Students	12.0%	15.0%	16.0%	8.0%	5.0%	11.0%	6.0%	2.0%

Washington County Virtual Program: Revisiting Lessons Learned

- Targeted professional learning focused on increasing student engagement.
- Prioritized and enforced student expectations regarding cameras and participation.
- Required students to log in 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.

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Lessons Learned

Summarizing Lessons Learned in SY 2021 - 2022

Changes in Grades, Quarter 1 to Quarter 4

More systems reported sizable increases in failure rates for virtual middle school students from Quarter 1 to Quarter 4 in all subjects.

Change in virtual program failure rate	MIDDLE SCHOOL			
	English	Math	Science	Social Studies
Decrease of more than 10 percentage points	1	0	0	2
Decrease of 3-10 percentage points	3	1	4	3
Increase/decrease less than 3 percentage points	2	1	4	3
Increase of 3-10 percentage points	5	6	4	8
Increase of more than 10 percentage points	7	9	5	5

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

Changes in Grades, Quarter 1 to Quarter 4

More systems reported **increased failure rates** for virtual high school students in math and science from Quarter 1 to Quarter 4.

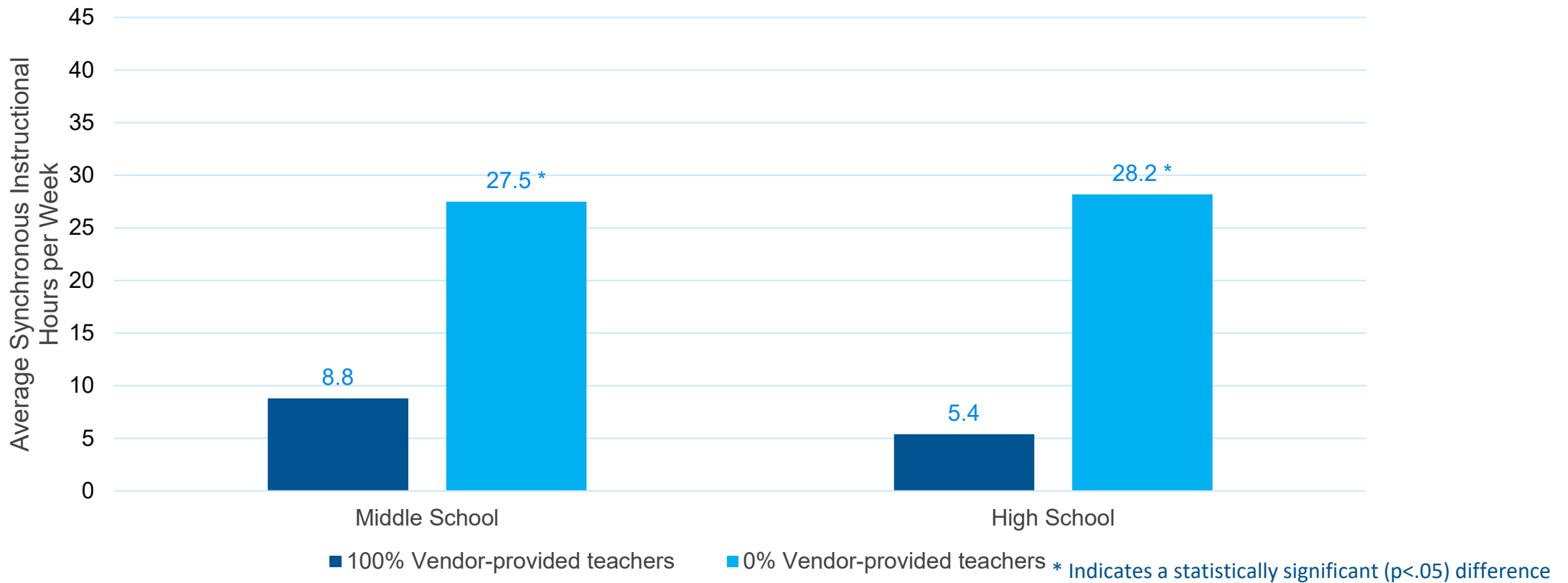
A similar number of systems had increases and decreases in failure rate in English and social studies.

Change in virtual program failure rate	HIGH SCHOOL			
	English	Math	Science	Social Studies
Decrease of more than 10 percentage points	3	0	2	2
Decrease of 3-10 percentage points	5	7	4	6
Increase/decrease less than 3 percentage points	2	1	1	2
Increase of 3-10 percentage points	4	3	2	3
Increase of more than 10 percentage points	3	6	8	4

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

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.



Next Steps

- Collect and monitor SY 2022 - 2023 attendance and quarterly data.
- Publish an interim report on SY 2021 - 2022 fully virtual programs.
- Publish a final report on SY 2021 – 2022 fully virtual programs that includes assessment results.
- Explore legislation and regulations regarding virtual learning.
- Compile state-level resources to ensure the success of LEA virtual programs.

Local School System Virtual Program Student Enrollment Data

Local School System	Student Enrollment in Grades K-5 as of 6/1/22	Student Enrollment in Grades 6-8 as of 6/1/22	Student Enrollment in Grades 9-12 as of 6/1/22	Total Student Enrollment as of 6/1/2022	Enrollment Change from 4/11/2022 to 6/1/2022
Allegany	59	12	0	71	-1
Anne Arundel	159	196	170	525	-9
Baltimore City	528	316	373	1,217	-71
Baltimore County	1,091	769	841	2,701	-76
Calvert	74	87	58	219	0
Caroline	n/a	13	11	24	0
Cecil	68	110	126	304	9
Charles	123	73	232	428	-8
Dorchester	n/a	9	12	21	-2
Frederick	421	351	353	1,125	6
Harford	263	303	371	937	-3
Howard	487	95	n/a	582	-3
Kent	n/a	n/a	14	14	0
Montgomery	1,201	662	796	2,659	-18
Prince George's	n/a	193	258	451	-3
Queen Anne's	n/a	20	19	39	0
Saint Mary's	68	113	125	306	-5
Somerset	n/a	n/a	14	14	1
Talbot	12	10	2	24	-1
Washington	162	97	104	363	4
Wicomico	87	63	50	200	-5
Worcester	16	18	19	53	-10
Total	4,819	3,510	3,948	12,277	-195

Note: n/a indicates the LEA does not have a fully virtual program at that school level.