

Utah State Board of Education

Exploring the Effects of the COVID-19 Pandemic on Student Achievement

November 17, 2021

Darin Nielsen, Assistant Superintendent of Student Learning

Study Goals

- USBE initiated a comprehensive set of studies to help understand the effects of pandemic-related disruptions on students' academic performance to address this overarching research question:
 - *To what extent have pandemic related disruptions influenced student achievement in Utah?*
- USBE enlisted the Center for Assessment to support the design and analyses of the studies.

Data Sources

Our studies included 2020-2021 data, as well as data from prior years, from the following Utah assessments:

- AAPPL
- Acadience
- ACCESS 2.0 for ELs
- ACT
- KEEP
- RISE
- Utah Aspire Plus

Responses to the 2020-2021 COVID impact questionnaire (by LEAs and schools) and opportunity-to-learn survey (by students) were also used in the analyses.

Disaggregation

Where feasible, our analyses were disaggregated by the following variables:

- Grade level and content area
- Student demographics (race/ethnicity, socioeconomic, special education, and English learner statuses)
- Primary learning model (remote/in-person/hybrid)
- Locale (rural/town/city/suburb)
- School and District

Key Findings

- Fewer students participated in 2021 compared to 2019 and this drop was substantial for historically underperforming groups of students.
- Therefore, it was critical that all subsequent analyses accounted for—to the extent possible—the non-representative differences in participations between 2021 and 2019.

Participation Rates (2019 v. 2021)

Utah Assessment	2019	2021
AAPPL	99%	90%
Acadience	94%	92%
ACT	94%	87%
KEEP	99%	97%
RISE (ELA/Math)	96% / 95%	91% / 91%
Utah Aspire Plus (ELA/Math)	94% / 94%	84% / 84%
WIDA ACCESS for ELs	85%	79%

What might appear to be little differences can have big effects when these differences are non-representative.

Consider the following...

What conclusions would we draw about School A's performance across Years 1 and 2?

TABLE 3-1 School A's Performance on Grade 8 Reading Test Across Academic Years

	Year 1	Year 2
Number of students	120	50
Average Score	425	512
Proficient	65%	80%

Consider the following...

Consider this additional information about School A in Years 1 and 2.
Now what conclusions would we draw?

TABLE 3-2 Demographics of School A's Grade 8 Reading Test Takers Across Academic Years

	Year 1	Year 2
Free and reduced price lunch	61%	30%
Special education	24%	12%
English learners	12%	4%

Participation matters!

Key Findings

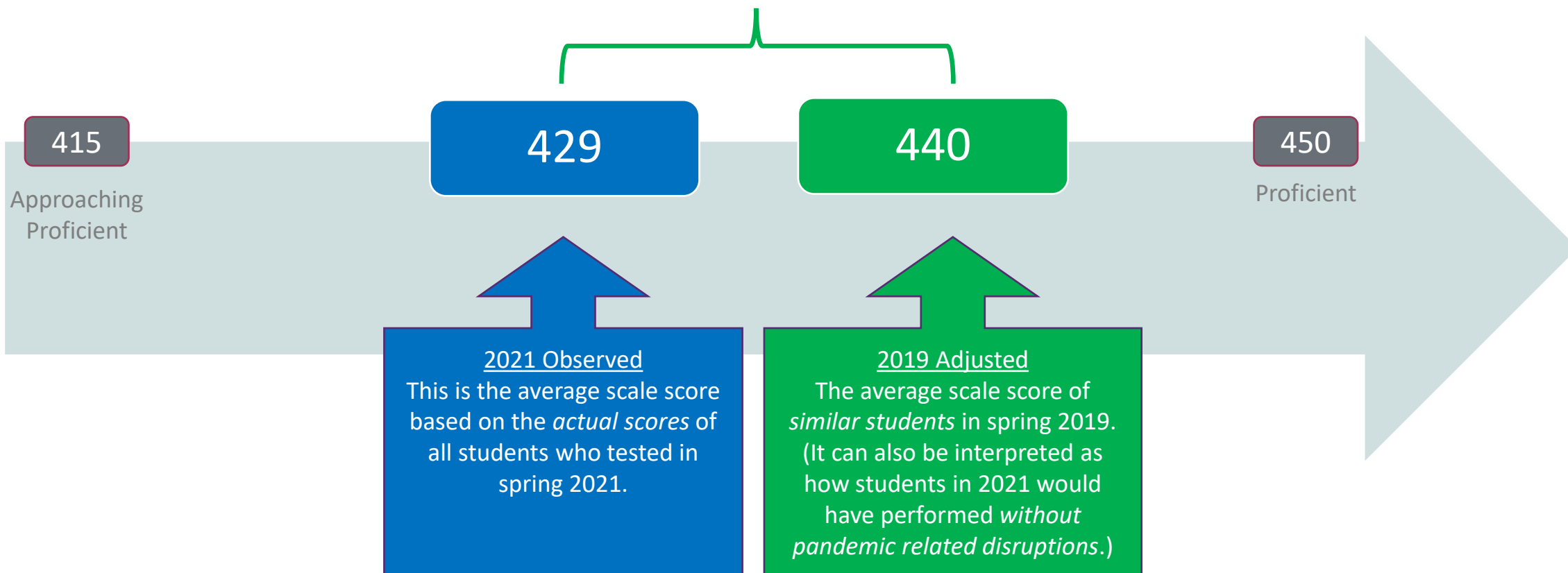
- Fewer students participated in 2021 compared to 2019 and this drop was substantial for historically underperforming groups of students.
- Student performance was notably lower in 2021 compared to 2019. There appears to be a ‘pandemic effect’ on student achievement.
 - This was true across all grades, subject areas, and student groups, with the declines slightly larger in mathematics compared to ELA.

We can think of the pandemic as an academic headwind, necessitating increased exertion and decreasing pace.



RISE Grade 7 Mathematics (2019 vs. 2021)

Pandemic Effect
(-11.5 points or -33% 'performance level change')



RISE	2020-2021 <i>Observed</i> Avg. Scale Score	2018-2019 <i>Fair Trend</i> Avg. Scale Score	Pandemic Effect	% Performance Level Change
Grade 5 ELA	387	399	-12	-25%
Grade 6 ELA	415	436	-21	-54%
Grade 7 ELA	426	434	-8	-17%
Grade 8 ELA	446	456	-10	-19%
Grade 5 Mathematics	368	378	-10	-39%
Grade 6 Mathematics	400	411	-11	-31%
Grade 7 Mathematics	429	440	-11	-33%
Grade 8 Mathematics	466	480	-14	-27%
Grade 6 Science	849	852	-3	-33%
Grade 7 Science	849	850	-1	-11%
Grade 8 Science	850	852	-2	-22%



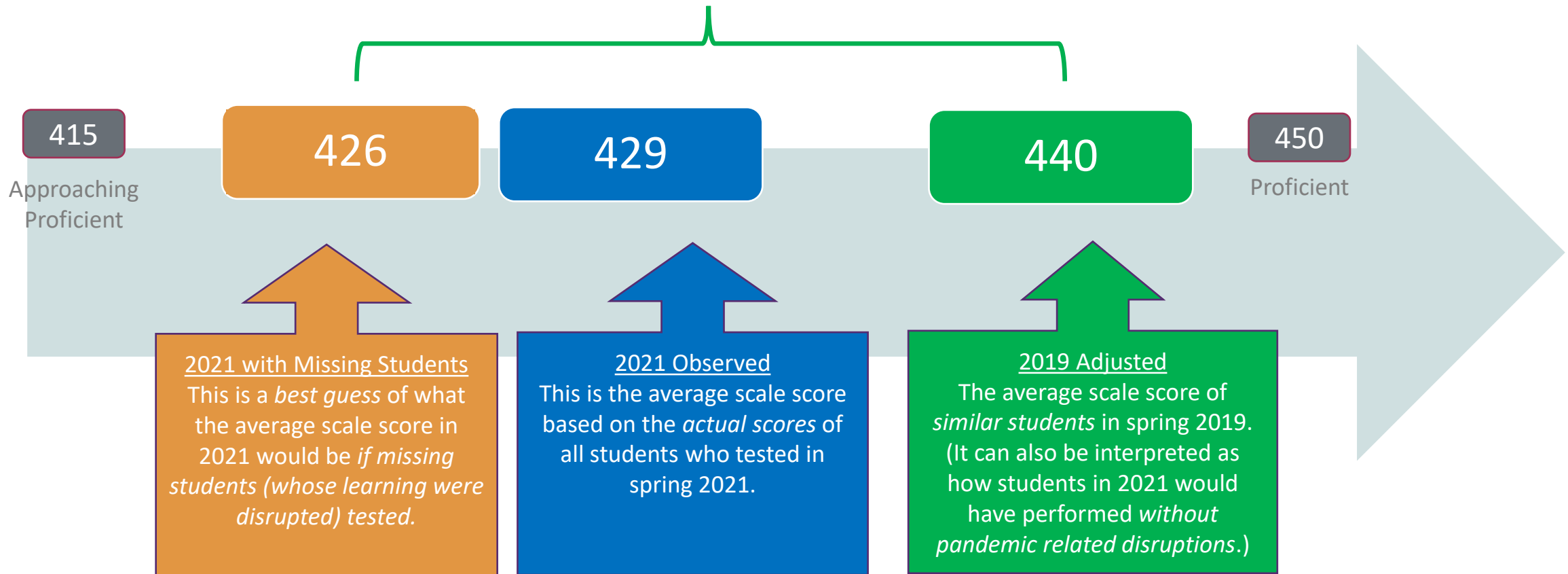
Utah Aspire Plus	2020-2021 <i>Observed</i> Avg. Scale Score	2018-2019 <i>Fair Trend</i> Avg. Scale Score	Pandemic Effect	% Performance Level Change
Grade 9 ELA	199	201	-2	- 6%
Grade 10 ELA	201	204	-3	- 9%
Grade 9 Mathematics	195	202	-7	- 24%
Grade 10 Mathematics	194	201	-7	- 27%

Key Findings

- Fewer students participated in 2021 compared to 2019 and this drop was substantial for historically underperforming groups of students.
- Student performance was notably lower in 2021 compared to 2019. There appears to be a ‘pandemic effect’ on student achievement.
 - This was true across all grades, subject areas, and student groups, with the declines slightly larger in mathematics compared to ELA.
- ‘Missing’ students (those who participated in 2019 but not 2021) were lower performing in 2019 compared to those who participated in both years.

RISE Grade 7 Mathematics (with Missing Students)

Pandemic Effect with Missing Students
(-14.4 points or -41% of 'performance level change')



RISE	2020-2021 <i>Missing Students</i> <i>Adjusted</i> Avg. Scale Score	2018-2019 <i>Fair Trend</i> <i>Adjusted</i> Avg. Scale Score	Pandemic Effect with Missing Students	% Performance Level Change
Grade 5 ELA	386	399	-13	-27%
Grade 6 ELA	413	436	-23	-57%
Grade 7 ELA	424	434	-10	-23%
Grade 8 ELA	442	456	-14	-26%
Grade 5 Mathematics	367	378	-11	-45%
Grade 6 Mathematics	398	411	-13	-37%
Grade 7 Mathematics	426	440	-14	-41%
Grade 8 Mathematics	461	480	-19	-37%
Grade 6 Science	849	852	-3	-37%
Grade 7 Science	848	850	-1	-15%
Grade 8 Science	850	852	-2	-24%

Utah Aspire Plus	2020-2021 <i>Missing Students Adjusted</i> Avg. Scale Score	2018-2019 <i>Fair Trend Adjusted</i> Avg. Scale Score	Pandemic Effect with Missing Students	% Performance Level Change
Grade 9 ELA	196	201	-5	-14%
Grade 10 ELA	199	204	-5	-14%
Grade 9 Mathematics	191	202	-11	-37%
Grade 10 Mathematics	189	201	-12	-46%

Learning Experience: Learning Model

Learning Model	# of Schools	% of Schools
Regular In-Person	325	31%
Remote	50	5%
Hybrid	654	62%
Online School	21	2%

- Based on LEA and/or school's response to COVID schedule impact questionnaire given in June 2021.
- Primary learning model is the model in which a school spent most days during 2020-2021

Achievement by Learning Model

Learning Model	RISE		Utah Aspire Plus	
	# of Students	% Proficient	# of Students	% Proficient
Regular In-Person	175,736	43.5%	35,066	41.6%
Remote	22,336	36.2%	3,833	44.6%
Hybrid	478,377	43.5%	102,327	41.5%
Online School	12,414	32.3%	1,651	37.5%

Note: The table above includes *student-level* statistics based on the primary 2020-2021 learning model of the school for each student.

Learning Experience: OTL Survey

Most of this school year I have attended school.

How many times were you quarantined and required to stay home from school?

I am satisfied with my learning this year.

Learning at school was harder this year due to safety guidelines like physical distancing or wearing masks.

Compared to a school year not affected by COVID-19 how much do you feel you learned this year?

I watched recorded lessons.

I joined live lessons with my teacher(s).

I used learning software or online programs such as Canvas Google Classroom etc..

I had access to individual help from my teacher(s) if I needed help with learning.

An adult in my household was available if I needed help with learning.

I had good internet access.

I had access to a computer or tablet that connected to the internet.

I shared a computer or tablet that connected to the internet with at least one other person in my home.

[USBE OTL Dashboard](#)

Most of the Year I have attended school...

RISE (grades 3-8)

Response	# of Students	% of Students	% Proficient
5 days a week in-person only	133,473	49.0%	43.5%
4 days in-person and remotely 1 day	101,870	37.4%	46.6%
1 to 3 days in-person and remotely the other days	11,614	4.3%	27.5%
Online only	10,404	3.8%	24.1%
I attended school online previously and I attend school online this year	14,869	5.5%	39.4%

Most of the Year I have attended school...

Utah Aspire Plus (Grades 9 & 10)

Response	# of Students	% of Students	% Proficient
5 days a week in-person only	58,240	45.2%	40.8%
4 days in-person and remotely 1 day	55,712	43.2%	45.8%
1 to 3 days in-person and remotely the other days	7,771	6.0%	35.8%
Online only	1,734	1.3%	24.7%
I attended school online previously and I attend school online this year	5,474	4.2%	40.8%

Number of times Quarantined or required to stay home from school...

RISE (grades 3 – 8))

Response	# of Students	% of Students	% Proficient
Not at all: 0 times	121,501	44.6%	46.3%
1 time	86,556	31.8%	43.7%
2 or more times	53,835	19.8%	36.1%
I did not attend school in person this year.	10,285	3.8%	34.8%

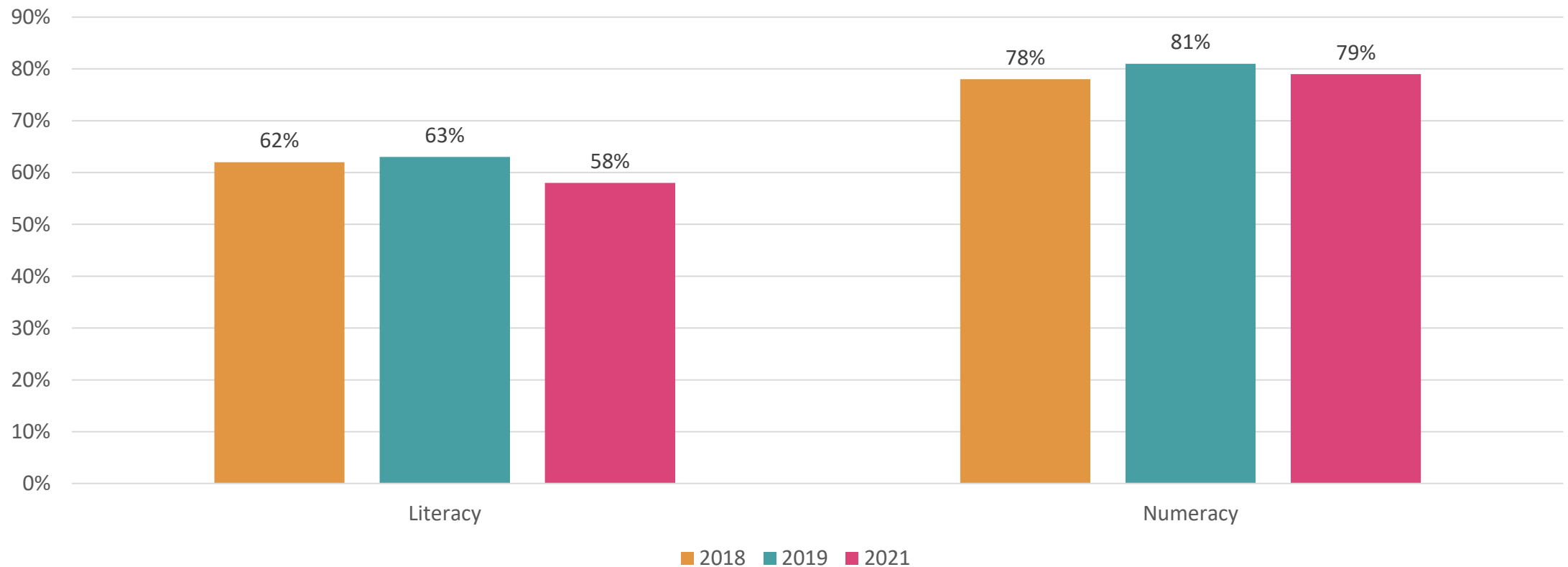
Number of times Quarantined or required to stay home from school...

Utah Aspire Plus (Grades 9 & 10)

Response	# of Students	% of Students	% Proficient
Not at all: 0 times	47,759	37.1%	42.2%
1 time	41,786	32.5%	44.1%
2 or more times	35,355	27.5%	41.2%
I did not attend school in person this year.	3,773	2.9%	39.8%

Kindergarten Entry/Exit Profile (KEEP)

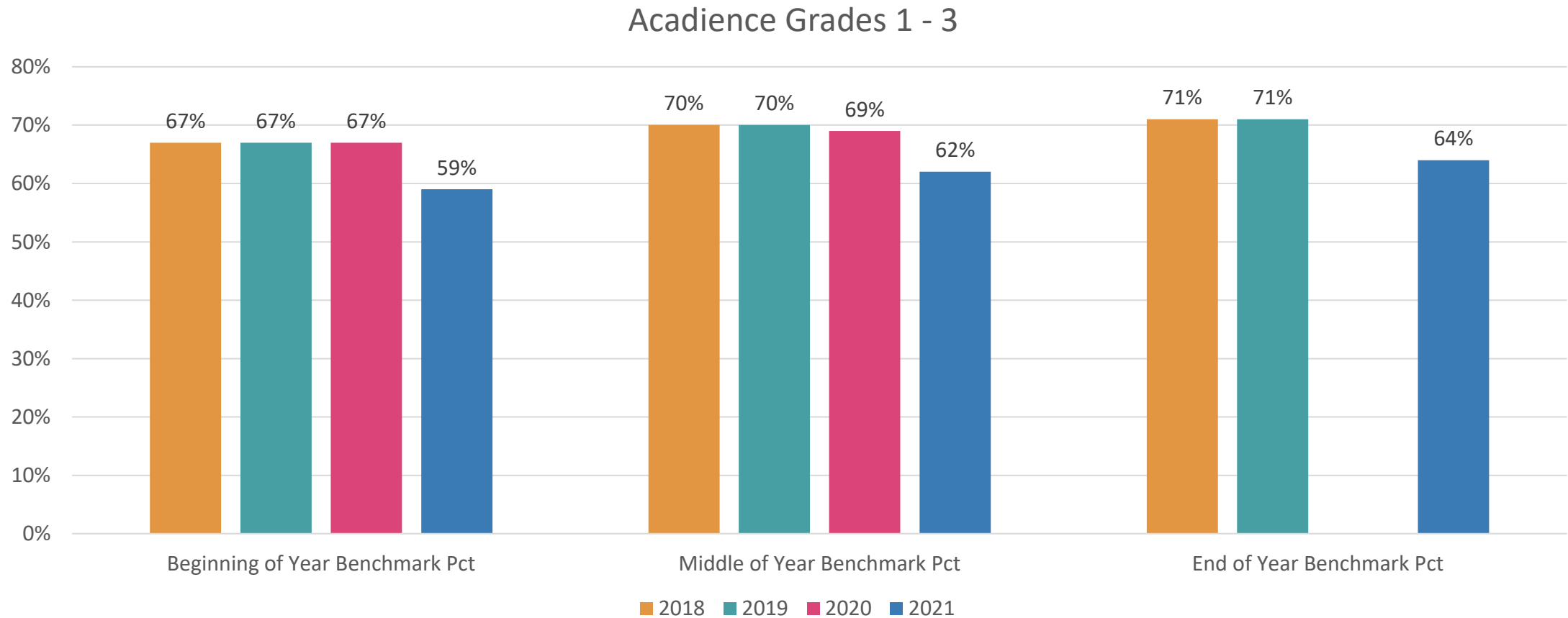
KEEP Exit - Percent Proficient



KEEP: Summary

- Overall student performance on the KEEP Exit numeracy assessment has remained relatively stable over the last four years.
- When disaggregating the KEEP Exit results, we find that students from low-income families, students learning English, and students of color experienced declines.
- Most kindergarten students ended the year proficient in both math literacy and numeracy

Acadience Reading Benchmark

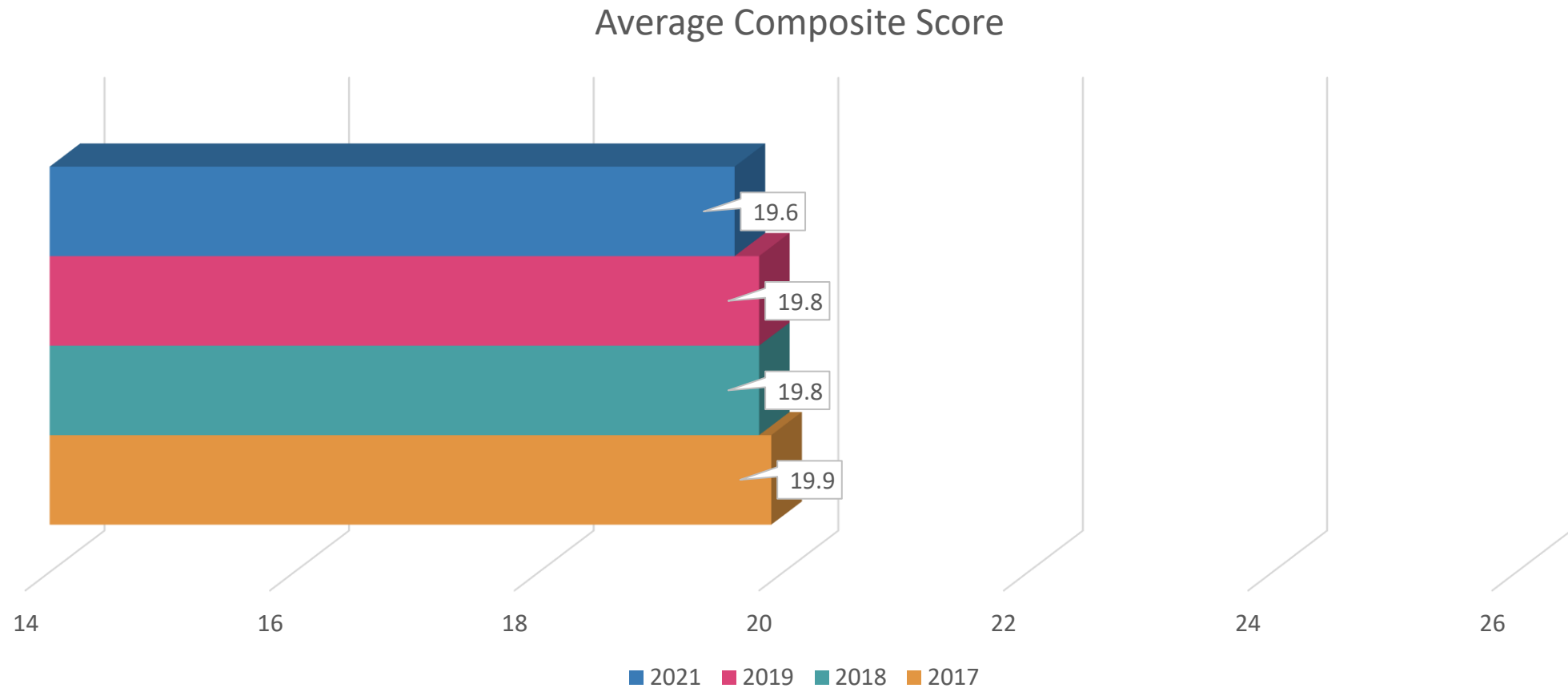


Acadience: Summary

- Beginning of year: The percent of students who met reading benchmarks in school year 2021 was lower than those in previous years. Students in first grade saw a particularly noteworthy decline.
- The percent of students who met reading benchmarks in SY 2021 was five to eight percentage points lower than SY 2019, with first grade students showing the largest decrease.
- End of the year: A comparison of student groups (e.g., students who are economically disadvantaged and those who were not) showed mostly similar percentage point decreases in reading benchmark in SY 2021 compared to SY 2019.
- End of Year: Among racial/ethnic student groups, students who identify as Native American/Alaska Native, those who identify as Native Hawaiian/Pacific Islander, and those who identify as Black/African American showed the largest percentage point decreases from SY 2019 to SY 2021, consistently across all grade levels.



11th Grade ACT

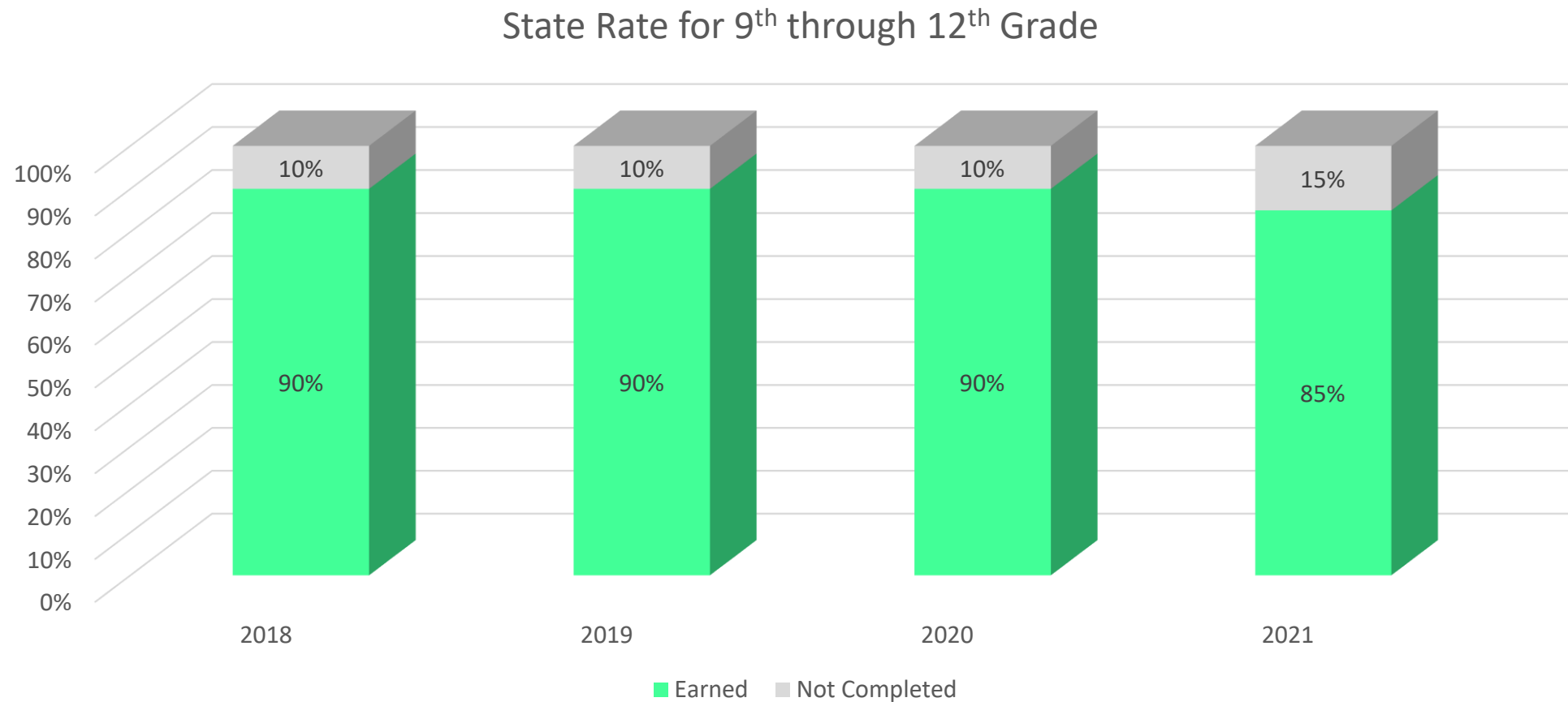


11th Grade ACT: Summary

- ACT score declines were observed in all states that tested at least half of their 11th grade population, including Utah
- On average, Utah's average ACT Composite scores declined by 0.27 points. The size of the declines was smaller for science.
- Score declines were observed for all racial/ethnic groups except Native American.
- Utah's Composite score decline is comparable to one month of lost instruction
- Larger score declines were observed for schools with suburban locales relative to those with rural, town, and city locales



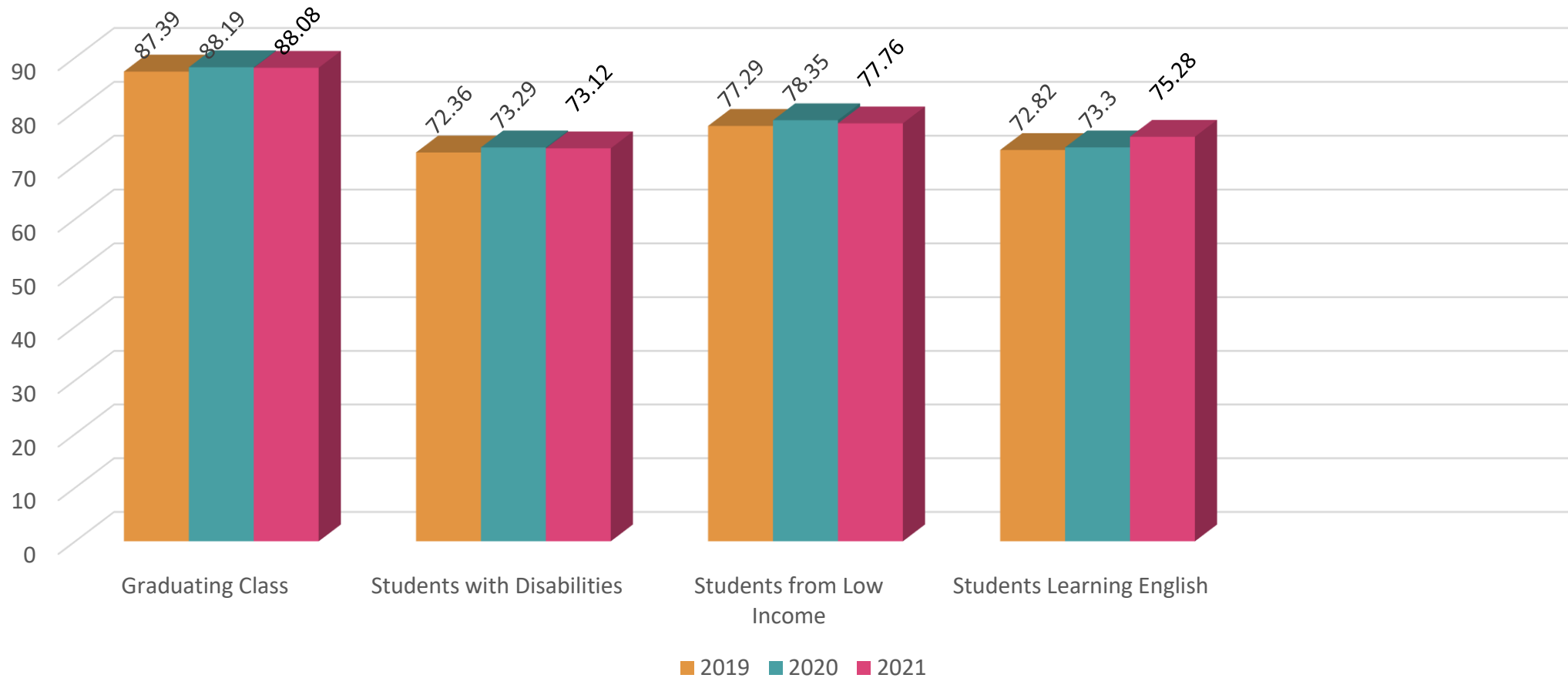
Credit Earned vs. Credit Attempted



Credit Earned vs. Credit Attempted

- Due to inconsistencies in how this data is recorded at the LEA level, some caution should be taken when considering this information.
- It appears that Urban LEAs and those serving students with higher numbers of students from low-income families realized a lower percentage of credit earned.
- Schools that reported a school schedule type of regular in-person (86%) or hybrid (90%) instruction realized the highest percent of credit earned.

2021 Graduation Rate



Call to Action

- Despite heroic efforts by teachers and leaders during the past two school years, the results reveal unprecedented impacts on both student participation and academic achievement on the Utah assessments.
 - For example, in some cases, we observe over two times the declines in student achievement in Utah compared to the effects attributed to Hurricane Katrina on students from New Orleans.
- The results are noticeably lower for students from certain racial and ethnic groups as well as English learners and students with disabilities.

Call to Action

- These findings must be interpreted along with other information, both local assessment and OTL indicators, to best determine the actions necessary to address learning disruptions.
 - State assessment results in 2022 will be an important source of confirmatory information.
 - In the near-term, educators and school leaders must rely on assessment information closest to the teaching and learning process to guide acceleration efforts.
- We did identify LEAs and schools that appear to ‘buck the trends’ and overcame the influence of pandemic disruptions.
 - LEA- and school-level analysis results will be included in the full report.

Call to Action

- These results must be interpreted as a call to action from the **statehouse to the schoolhouse**.
 - School leaders, educators, and local communities will need support and resources to sustain the necessary interventions well beyond the time when the federal ESSER funds run out.

These resources can act as an academic tailwind, eliminating the strain caused by the pandemic and accelerating our students academic progress over the coming years.



Utah State Board of Education

Enrollment Update

Scott Jones, Deputy Superintendent of Operations
Aaron Brough, Data and Statistics Coordinator



Utah Districts and Charter Schools: 2021-2022 School Year

	Oct 1, 2021 K-12 Count	Oct 1, 2020 K-12 Count	Oct 1, 2020 to Oct 1, 2021 K-12 Difference	Oct 1, 2020 to Oct 1, 2021 K-12 Percent Difference
Charter	77,786	79,255	-1,469	-1.9%
District	597,461	587,354	10,107	1.7%
USDB	197	185	12	6.5%
State*	675,247	666,609	8,638	1.3%

K-12 Student Count: Comparison of Oct 1, 2021 with Oct 1, 2020

- USDB = Utah Schools for the Deaf and Blind
- *State total is excluding USDB

	Oct 1, 2021 K-12 Count	CDC Estimate of Oct 1, 2021 K-12 Count	Oct 1, 2021 Difference from CDC Estimate	Oct 1, 2021 Percent Difference from CDC Estimate
Charter	77,786	80,777	-2,991	-3.7%
District	597,461	593,077	4,384	0.7%
State*	675,247	673,854	1,393	0.2%

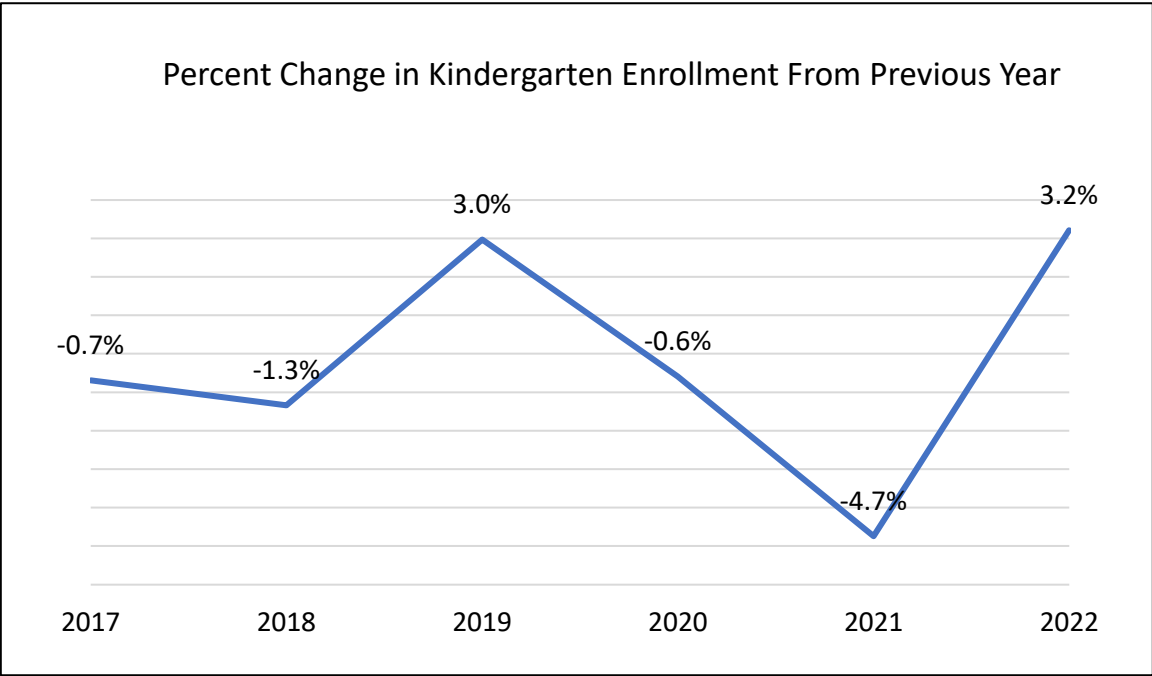
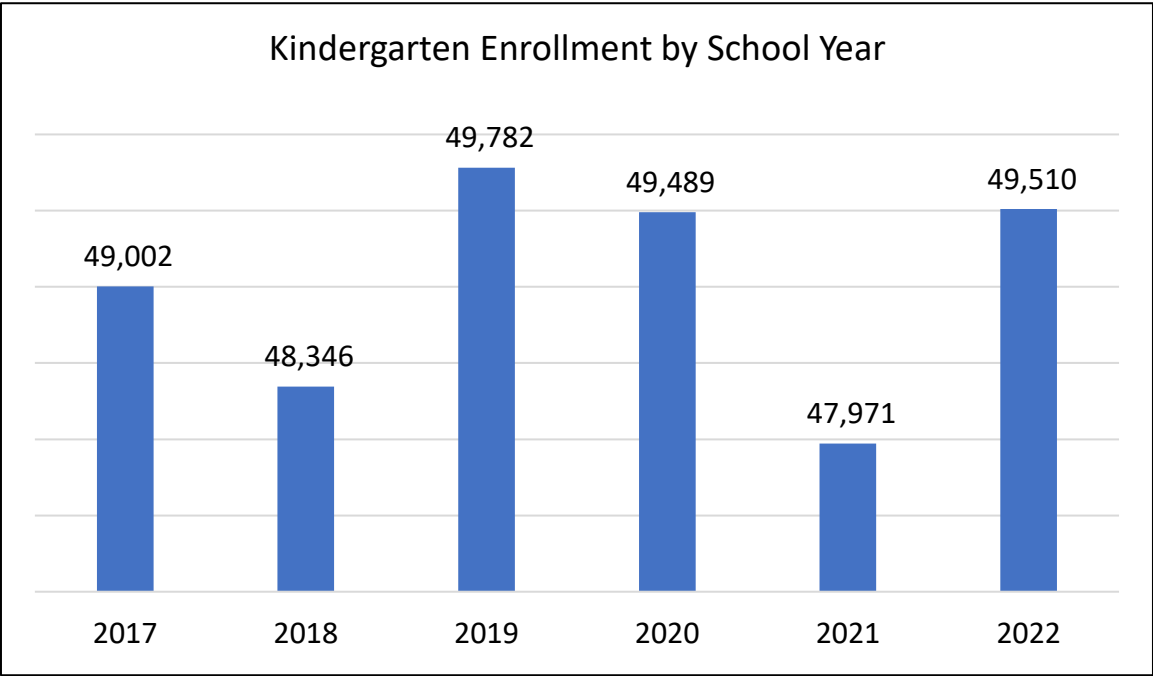
K-12 Student Count: Comparison of Oct 1, 2021 Actual with Projected

- CDC = Common Data Committee
- *State total is excluding USDB

October 1 Enrollment Trends: Kindergarten Enrollment*

Kindergarten enrollment in SY 2022 is back up to where it was in SY 2020.

Kindergarten enrollment increased by 3.2% from SY 2021 to SY 2022.

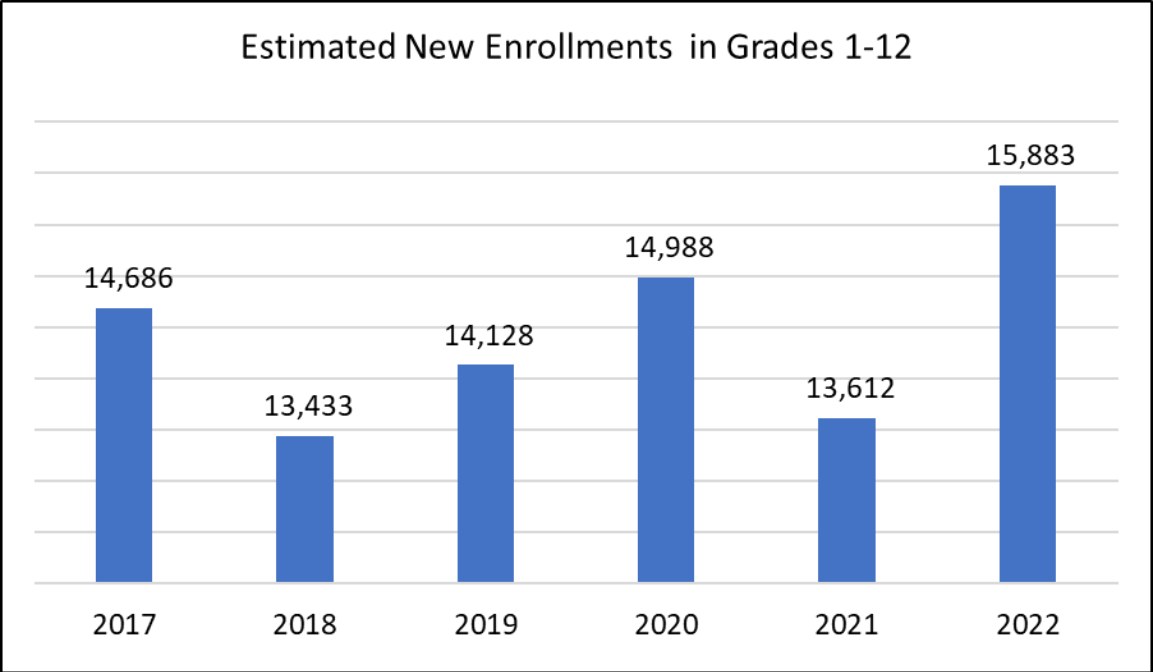


**Updated with data from the Oct 1 SY 2022 data submission*

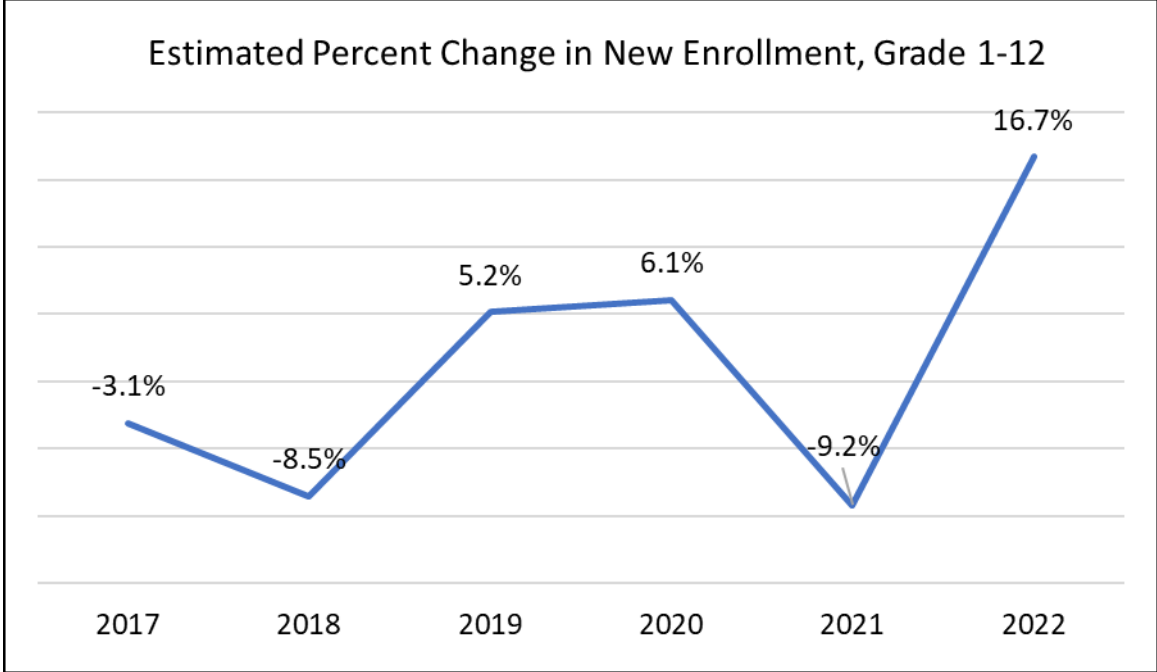
October 1 Enrollment Trends:

New Enrollments in Grades 1-12*

The increase in new enrollments in SY 2022 was 2,271 compared with SY 2021, but only 895 compared with SY 2020.



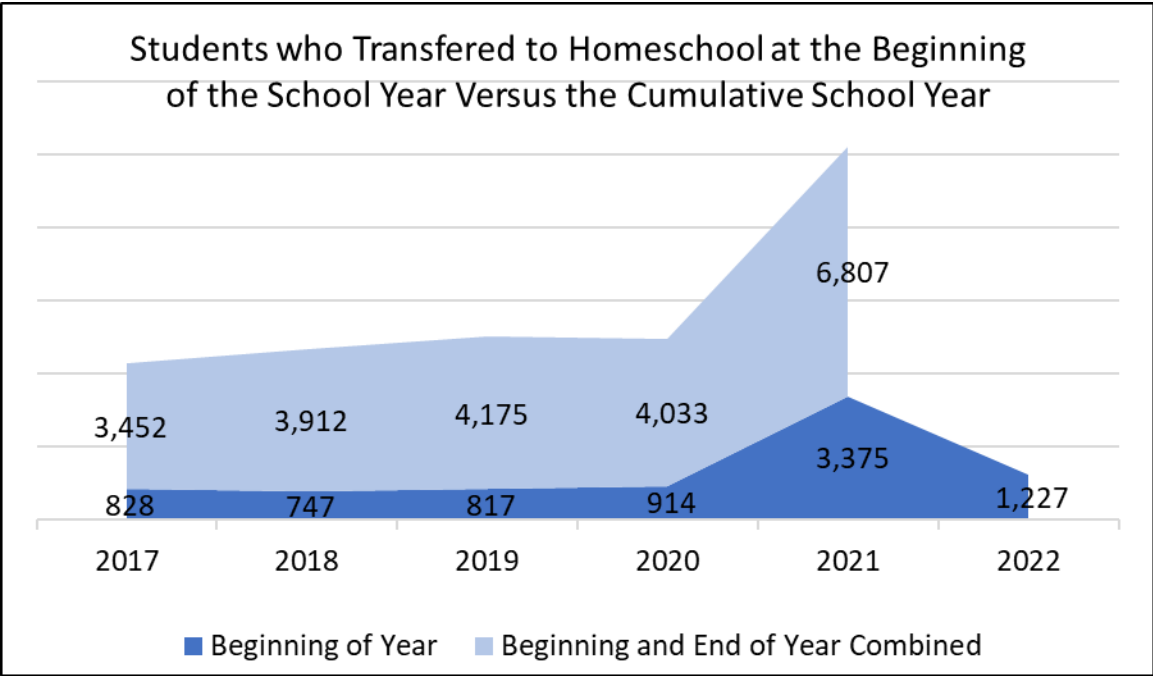
The increase in new enrollments in SY 2022 was larger than normal; some of it may be students who didn't enroll in SY 2021 due to the pandemic.



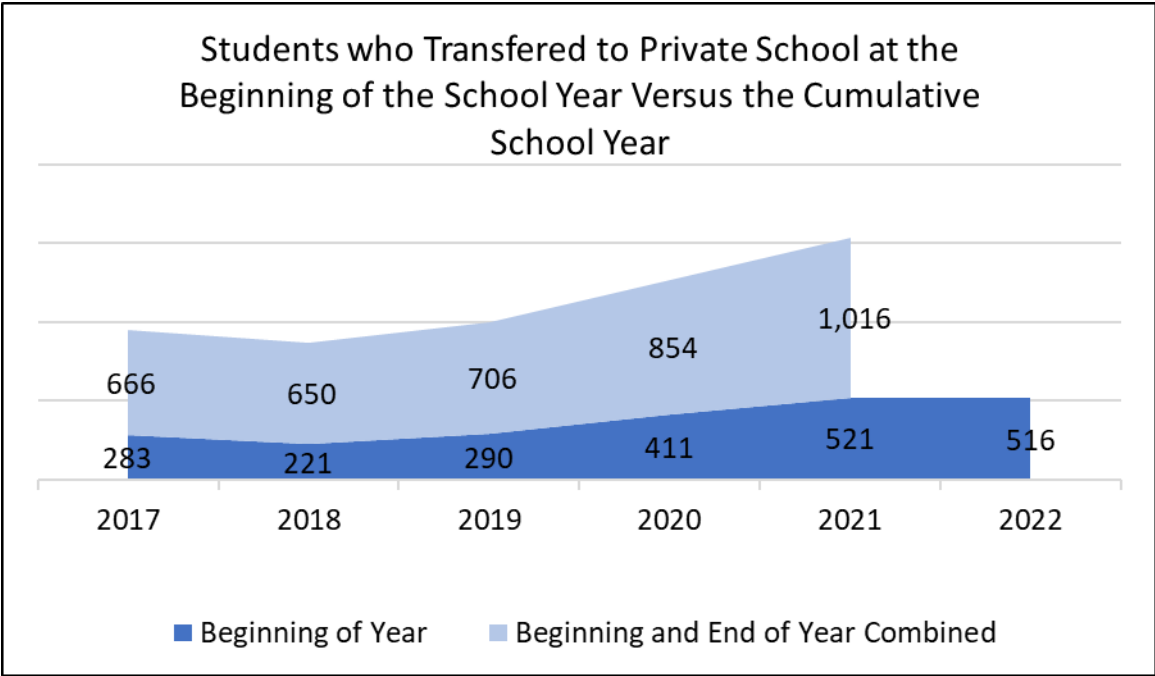
Counts are of students whose first enrollment in a Utah public school was **in first grade or higher. Additionally, counts only include students who first **enrolled by October 1 of the school year**. The reason they did not start in Pre-K or Kindergarten could be that they were previously living out of state or country, were withheld from kindergarten, or were homeschooled or attended a private school.*

October 1 Enrollment Trends: Homeschool and Private School*

The number of students who transferred to homeschool in beginning of year SY 2022 declined toward pre-pandemic levels.



The number of students who transferred to private school remained about the same in beginning of year SY 2022 compared with the previous year.



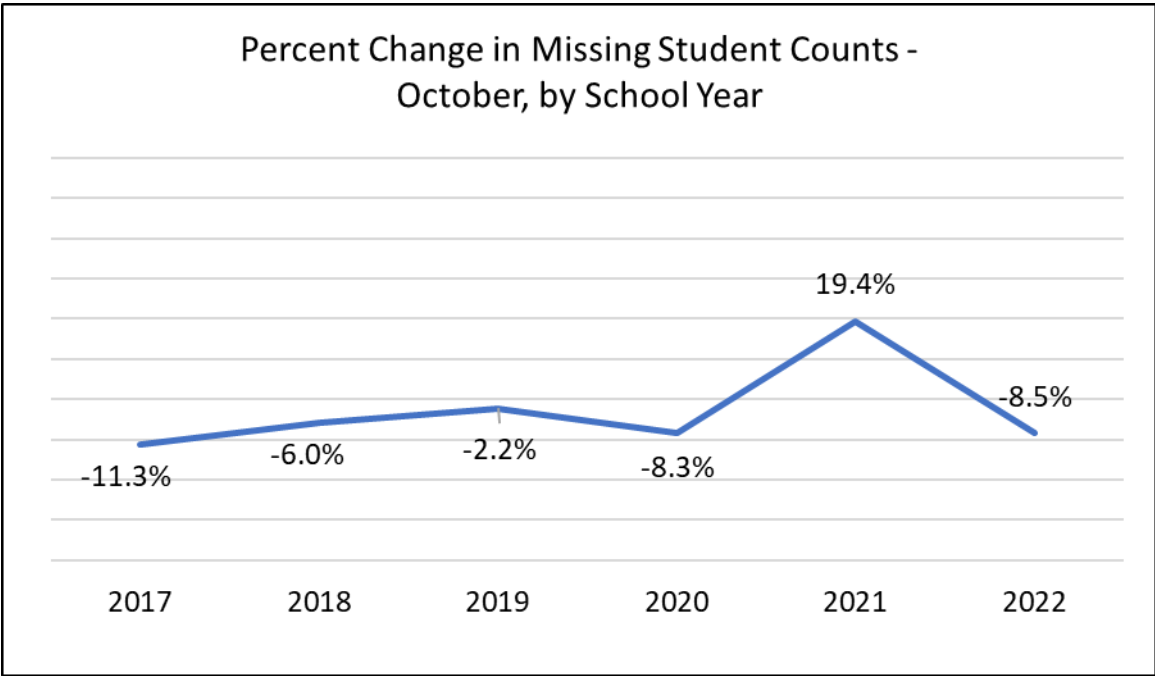
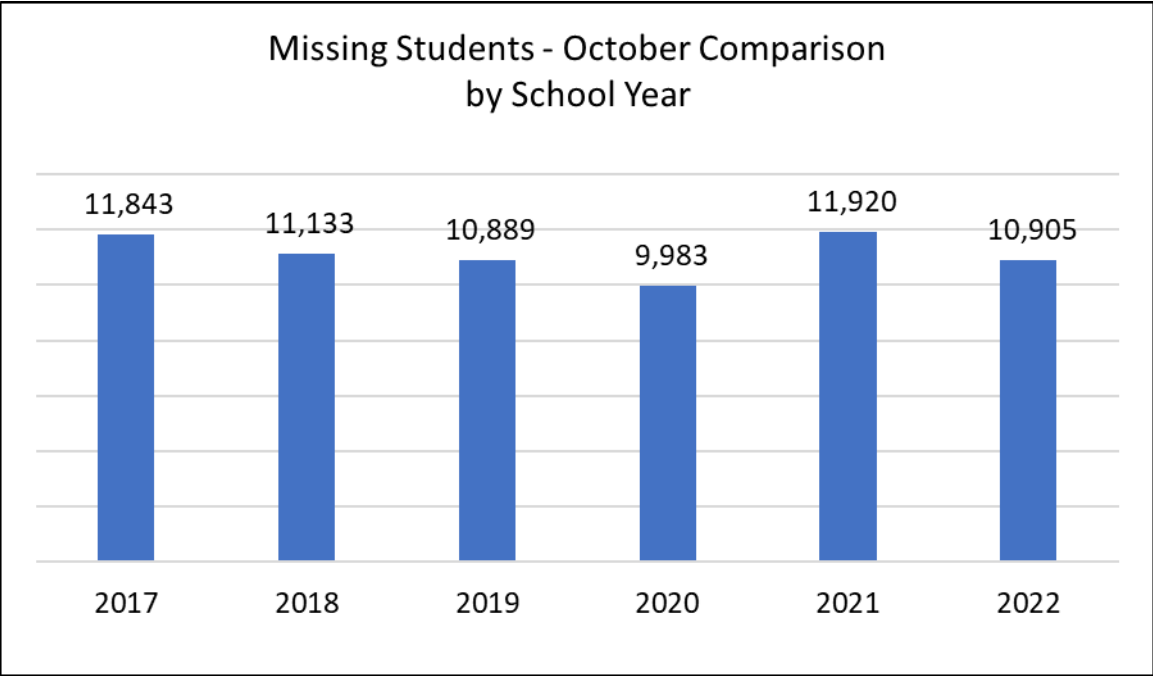
**Updated with data from the Oct 1 SY 2022 data submission*

October 1 Enrollment Trends:

Missing Students (AKA Summer Dropouts)*

The count of missing students decreased by 1,015 in SY 2022 compared with SY 2021.

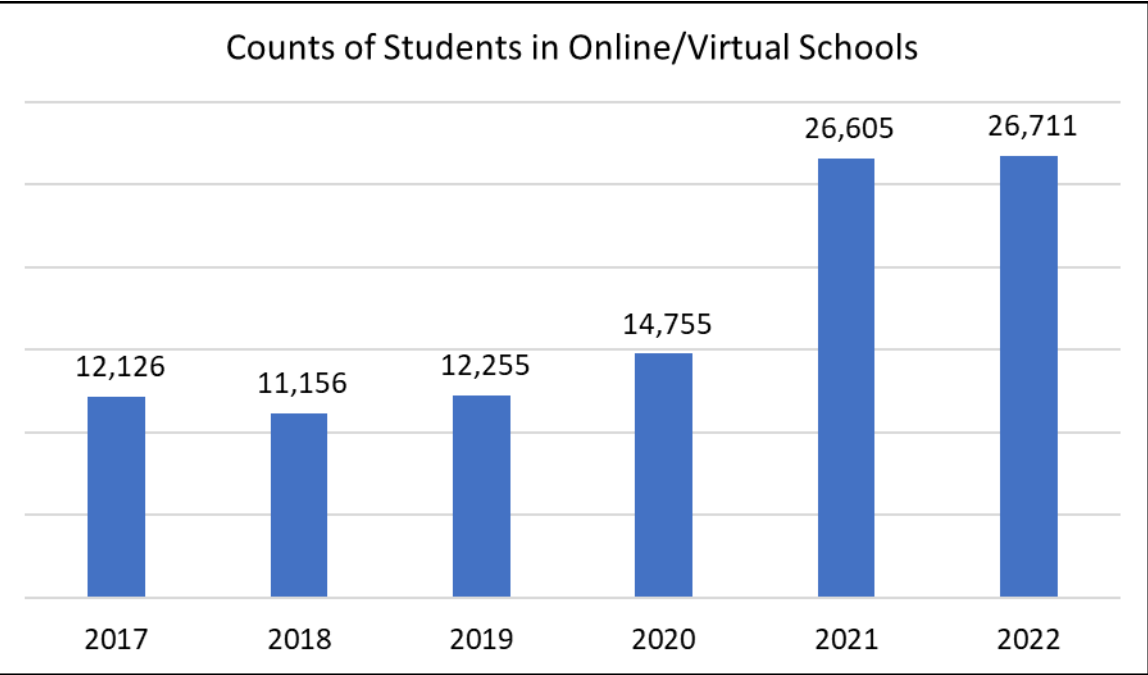
Missing student counts were trending down each year prior to SY 2021. The missing student count was similar in SY 2022 to SY 2019.



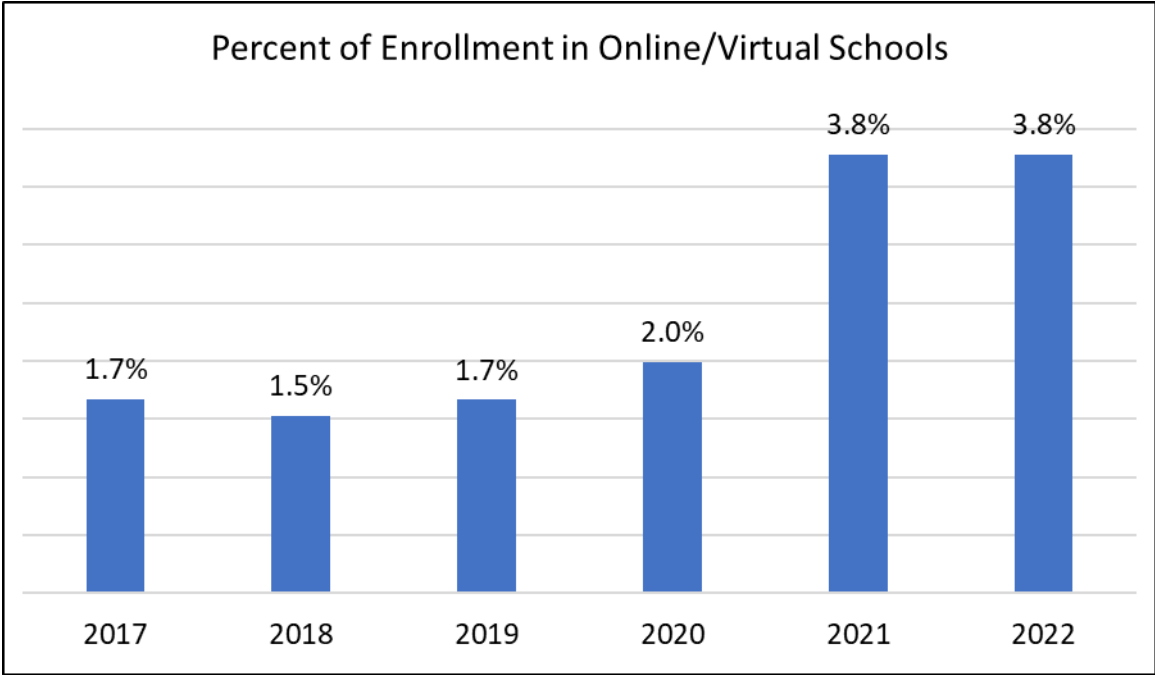
**Counts are of students who ended the previous school year with the expectation that they would return to school, but the student did not return to school by Oct 1, and their status/whereabouts are unknown. The process of identifying missing students is like the process used for identifying summer dropouts except that the missing student count looks at students enrolled in Kindergarten through grade 12 the prior year, whereas summer dropout data is limited to students enrolled in grades 7 and higher the prior year.*

October 1 Enrollment Trends: Online and Virtual Schools*

Enrollment in Online and Virtual Schools remained the same in SY 2022 as in SY 2021.



The percent of students enrolled in Online and Virtual schools remained the same in SY 2022 as in SY 2021.



**Updated with data from the Oct 1 SY 2022 data submission*

Questions?