Pandemic Schooling Mode and Assessment Outcomes Data Series
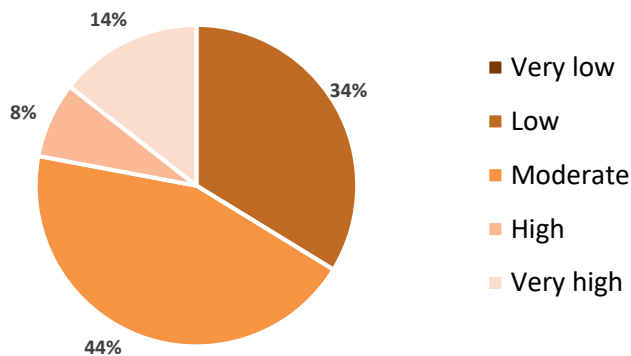
COLORADO
State Snapshot

LEVEL OF ACCESS TO IN-PERSON INSTRUCTION, 2020-21

- 34% Very low (dark brown — see legend)
- 44% Low
- 8% Moderate
- 14% High
- Very high

Legend:
- ■ Very low
- ■ Low
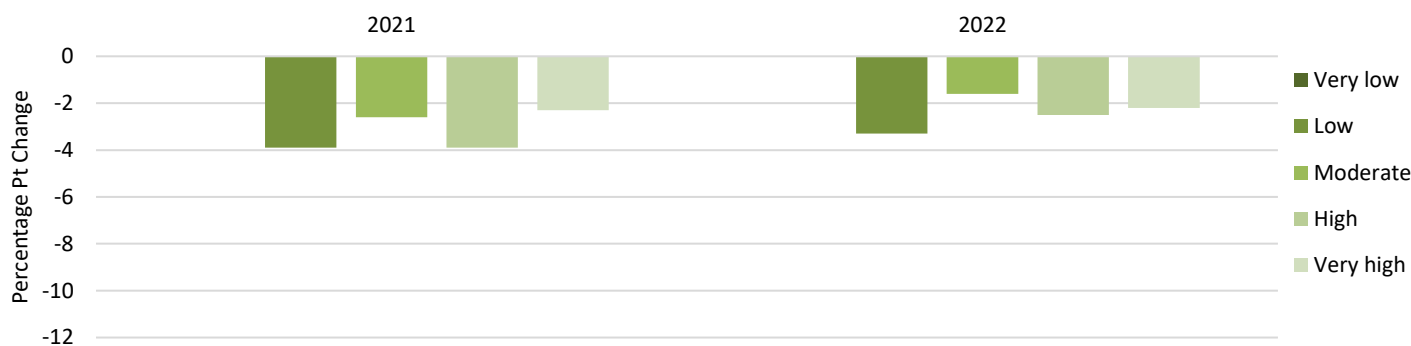- ■ Moderate
- ■ High
- ■ Very high

Note. Colorado students were classified according to their level of access to in-person instruction in 2020-21, based on their district's learning model categorizations over the course of the year (in-person, hybrid, virtual). Of 820,182 students in K-12 included in the analysis, 14% had *very high* levels of access to in-person instruction (*n*=118,340), 8% had *high* access (*n*=62,456), 44% had *moderate* access (*n*=362,570), 34% had *low* access (*n*=276,816) and 0% had *very low* access (*n*=0).
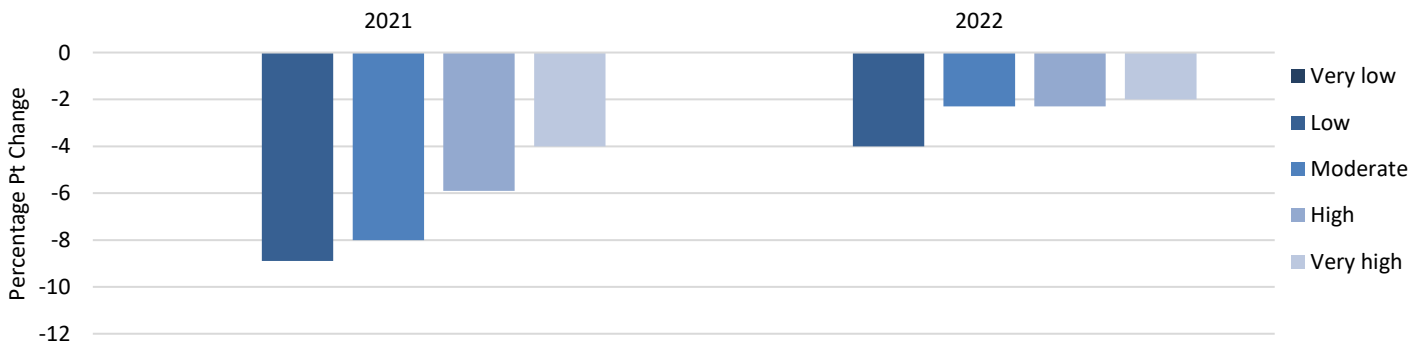
HIGHLIGHTS

- **Level of In-Person Access:** In 2020-21, **14%** of Colorado students were in districts that offered *very high* levels of in-person instruction. No students had *very low* access to full in-person instruction.

- **Average Changes in Academic Proficiency:** Relative to Spring 2019, the number of Colorado students achieving ELA and math proficiency was **5.4** percentage points lower in 2021. The number of students reaching ELA and math proficiency in 2022 was **2.6** percentage points lower than in 2019, on average.

- **Changes in Academic Proficiency by Level of Access to In-Person Instruction:** Students in districts with *low* levels of in-person instruction experienced the greatest declines in ELA and math proficiency in both Spring 2021 and 2022, relative to Spring 2019.

COLORADO AVERAGE CHANGE IN ACADEMIC PROFICIENCY

ELA

Change in Percentage of Students in Grades 3–8 Achieving ELA Proficiency Compared to Spring 2019, by Level of Access to Full In-Person Instruction in 2020-21

Legend:
- ■ Very low
- ■ Low
- ■ Moderate
- ■ High
- ■ Very high

MATH

Change in Percentage of Students in Grades 3–8 Achieving Math Proficiency Compared to Spring 2019, by Level of Access to Full In-Person Instruction in 2020-21

Legend:
- ■ Very low
- ■ Low
- ■ Moderate
- ■ High
- ■ Very high

Note. As displayed in the pie chart above, the distribution of students across categorizations varies. The *"very low"* category is not displayed here (no students were in this category).

PANDEMIC SCHOOLING MODE DATA

Colorado's pandemic schooling mode data for the 2020–21 school year were provided by the Colorado Department of Education and are available at the district level between August 2020–June 2021. For more information and to access the data, visit https://www.covidschooldatahub.com/states/colorado.
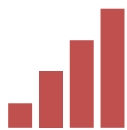
To determine the *level of access to in-person instruction* in 2020-21, the COVID-19 School Data Hub (CSDH) first determined the percentage of the school year that students within each district were offered full in-person instruction, hybrid instruction, or virtual instruction. Note that the data reflect the *predominant* model used by a school or district during a given time period. Also, students may have opted for virtual learning even if their school's predominant learning model was in-person or hybrid.

Next, for the purposes of this Data Series, districts were classified into **five levels of access to in-person instruction**, based on the following formula:

$$\% \text{ of the year in-person}*100 + \% \text{ of the year hybrid}*50 + \% \text{ of the year virtual}*0$$

Scores and level of in-person access classifications:

Score:	0-20	>20-40	>40-60	>60-80	>80-100
Classification:	Very low	Low	Moderate	High	Very high

STATE ASSESSMENT DATA

The student outcome data used in this Data Brief come from the Colorado Measures of Academic Success (CMAS) assessment. The data represent outcomes for students in Grades 3–8 in math and ELA.

Measuring Proficiency
The CMAS includes five proficiency levels: *Did Not Yet Meet Expectations, Partially Met Expectations, Approached Expectations*, *Met Expectations,* and *Exceeded Expectations*. In this report, "**not proficient**" = *Did Not Meet Expectations, Partially Met Expectations,* and *Approached Expectations,* and "**proficient**" = *Met Expectations* and *Exceeded Expectations.*

Years Included in Analysis
This report reflects school years (SY) 2018-19 through 2021-22. Data for SY 2020-21 are not available, as the assessment was not administered due to the COVID-19 pandemic.

Participation Rate Data
In Spring 2021, the U.S. Department of Education waived the requirement that 95% of all students complete the state's annual academic assessment, leading to varied participation rates by state. In Colorado, approximately 71.6% of students participated in the assessment in 2021, on average. In Spring 2022, districts were again required to measure the achievement of not less than 95% of all students and students in each subgroup on annual statewide assessments in ELA and math.

Additional Information
In 2021, instead of all students testing in all subjects as in prior years, Grades 3, 5, and 7 were tested in ELA, and Grades 4, 6, and 8 were tested in math. Parents could choose to have their children take both tests. Data in this report reflect all grades tested in 2019 and 2022. More information about the CMAS data and results can be found at https://www.cde.state.co.us/assessment/cmas.

ABOUT THE DATA SERIES

The **Pandemic Schooling Mode and Assessment Outcomes Data Series** *explores how differences in schooling mode (in-person, hybrid, or virtual) during the first full pandemic school year of 2020–21 relate to changes in student academic outcomes.*

Specifically, the Data Series presents changes in math and ELA proficiency on state assessments in Spring 2021 and Spring 2022, relative to Spring 2019, by level of access to full in-person instruction in the 2020-21 school year.

For additional Data Briefs available through this Data Series, please visit https://www.covidschooldatahub.com. For any questions, please email covid19schooldatahub@gmail.com.

The COVID-19 School Data Hub (CSDH) integrates data provided from state agencies about the learning models of instruction (in-person, hybrid, or virtual) used in their public K-12 schools and districts over the course of the 2020-21 school year. This public database provides a valuable resource for researchers who are seeking to explore a variety of outcomes based on students' modes of learning during the first full school year of the COVID-19 pandemic. School- and district-level data files are publicly accessible at https://www.covidschooldatahub.com.