

A new COVID-19 data source for answering emerging pandemic questions

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Accurate and reliable information about students' experiences during COVID-19 school closures is critical to address unfinished learning, disengagement, and target other services. It has also been remarkably difficult to track down. With cases skyrocketing and [new school closures](#) and delays in January 2022 due to the Omicron variant, tracking school modality may be a multiyear endeavor.

When it comes to understanding what happened in the 2020-21 school year, the relatively new [COVID-19 School Data Hub](#) is an easy to use tool, and one of the few school closure trackers with information at the school, rather than the school district level.

The COVID-19 School Data Hub can be used to understand how the pandemic influenced learning mode in schools during the 2020-21 school year, with school level data on learning modes for 36 states, using verified information from state departments of education. Many may use it for the quick, visual representation of school modality on the front page. But the data hub offers much more.

The data hub [coordinates school- or district-level data](#) on learning mode by state, including enrollment by learning mode and COVID-19 case counts for students and teachers. Information on school modality comes from state departments of education, so it is an official information source. It's also linkable to Federal information on school characteristics. The Data Hub includes resources for researchers like [data collection methods](#), ways the data may connect to [other public data sources](#), and one example of a [state-specific case study](#).

Below is one way to use these data, as well as how they compare to other similar US databases.

Data application example: *Were charter schools more or less likely to offer in-person learning during the pandemic?*

During the pandemic, charter schools [increased their enrollment](#) (National Alliance for Public Charter Schools). The same report that documents the increased enrollment implies that more families exercised choice because of charter schools' "nimbleness and flexibility" in terms of responding to the pandemic. But, without specific data on learning models, it's difficult to know if charters were indeed more nimble and flexible, at least when it comes to school modality.

To answer this question, the below graph illustrates data from the COVID-19 School Data Hub. Each group of three bars shows the percent of schools in a particular learning model—in-person

(dark gray), hybrid (light gray), or virtual (light blue)—in a given month for traditional public schools and charter schools separately, both for urban areas and nonurban areas.

What conclusions can we draw from this picture? In short, there’s no evidence that charter schools are more nimble when it comes to learning mode. Indeed, if anything, they appear to be less flexible, and least-likely to offer in-person learning.

Both traditional and charter schools were more likely to be in-person or hybrid in nonurban areas. And as a whole, traditional public schools show more variation over time than charter schools. Especially in the first half of the school year, it appears that urban charters mostly made a plan and stuck with it for the full semester, and the most common schooling modality was virtual. Non-urban charters have similar “stickiness” in the first half of the year, but were more likely to be in-person than urban charters. In all cases, in-person instruction increased rapidly in the second half of the school year, but charters were always more likely to be hybrid or virtual than traditional public schools.

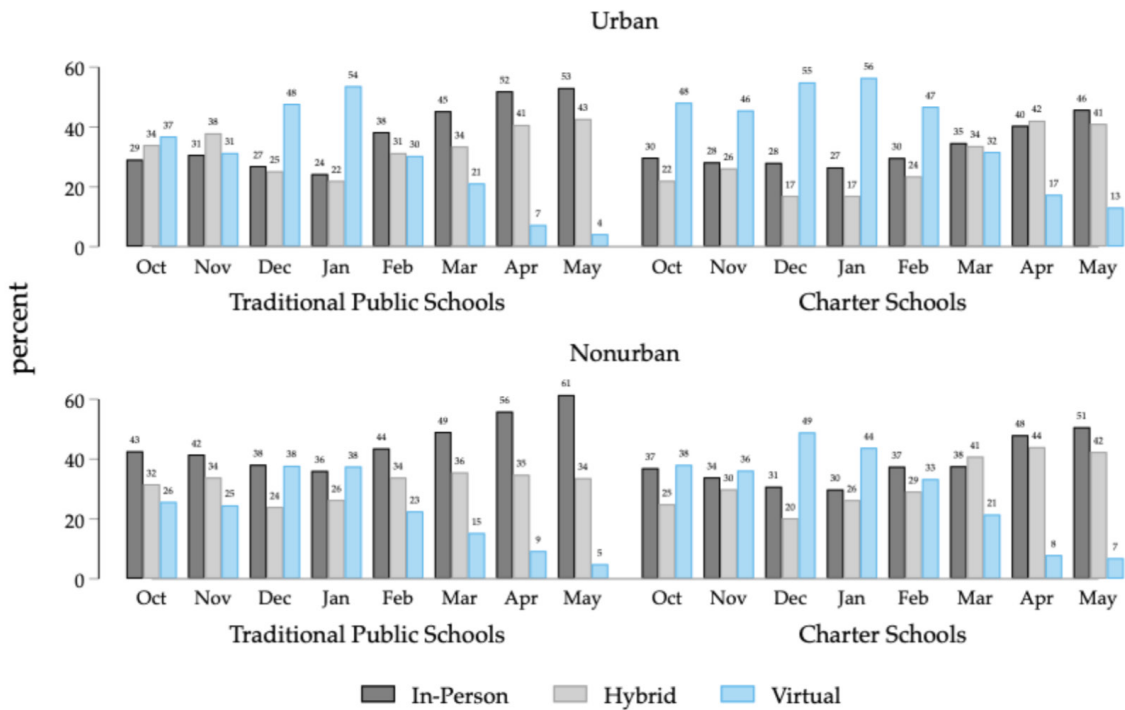


Figure Notes: This figure reports the percentage of schools in each learning model category by school type and urbanicity, limited to the 22 states which report school-level data. Learning model status is assigned by the first reported status in a given month. September and June data excluded for lack of completeness. If a school has multiple grade levels with different modalities, it is reported as hybrid. Schools without a reported learning modality are excluded (about 3 percent of the sample). Charter schools categorized by NCES as always virtual schools are excluded from the analysis. Data for Florida and Texas are interpolated to cover missing months. The included states are: AK, AL, AR, AZ, CA, FL, IN, KY, ME, MN, MS, ND, NE, NV, NY, OR, RI, TX, UT, VT, WI, and WV.

Charter schools may very well have increased enrollments in the 2020-21 school year. But it seems more likely that it was because they offered a more consistent learning environment (often virtual or hybrid) rather than a more flexible one or one more likely to be in-person.

This is a very basic analysis, which simply breaks down the data by school type. We have not shown within school changes which might reveal schools entering and exiting learning modalities more frequently than the averages show. We also are not carefully comparing

schools within similar circumstances: for example, there may well be traditional public schools represented in the data without any nearby charter schools serving similar populations and facing similar COVID-19 conditions. The sample is limited to states with school level information. However, this type of analysis shows that with information like that available in the COVID-19 School Data Hub, questions that were previously answered by intuition, survey, or anecdote can now be answered with evidence commonly reported to states.

Data Sources for Learning Modality

Crucial to future analyses of the influence the pandemic had on student success and outcomes is understanding which schools were open and in which format during the 2020-21 school year, and beyond. There are other data sources for this beyond the Data Hub, which we summarize in a table below.

The US Department of Education and the CDC released a [new COVID-19 dashboard](#) in November. This dashboard tracks school modality in the 2021-22 school year, on top of a [survey data collection](#) for the second half of the 2020-21 school year. However, there are (as of yet) many fewer COVID-related school closures and switches to virtual learning this school year. And it still remains the case that there was no system-wide federal data collection other than the survey in 2020-21; thus the need to rely on state departments of education.

Other trackers come from [Burbio](#), [MCH](#), and [Return to Learn](#) (AEI). Each of these data sources has upsides and downsides. Some of the details are outlined in the table below.

RETURN TO LEARN (2020-21)				
Downloadable? Upon request	Level District, State	Sample Coverage 8,600 US school districts	Learning Modality Data Source Web scraping district websites	Included Elements: <ul style="list-style-type: none"> • Learning mode • Achievement levels • COVID-19 case counts • Community characteristics • District size • Mask policies
COVID-19 SCHOOL DATA HUB (2020-21)				
Downloadable? Yes	Level School, District, State	Sample Coverage 36 states	Learning Modality Data Source State Departments of Education	Included Elements: <ul style="list-style-type: none"> • Learning mode • Enrollment by learning mode • COVID-19 case counts by students and staff • Mask policies • NCES data on demographics and location

MCH (2020–21, 2021–22)				
Downloadable? Yes	Level District	Sample Coverage 84% of US school districts	Learning Modality Data Source Survey	Included Elements: <ul style="list-style-type: none"> • Learning mode • Mask policies
US DEPARTMENT OF EDUCATION COVID-19 DATA DASHBOARD (2021–22, UPDATED EVERY 2 WEEKS)				
Downloadable? No	Level District, State	Sample Coverage 61.8% of US school districts	Learning Modality Data Source State dashboards, Burbio, MCH, Return to Learn	Included Elements: <ul style="list-style-type: none"> • Learning mode
BURBIO (2020–21, 2021–22)				
Downloadable? Upon request	Level District	Sample Coverage 1,200 school districts, extrapolated to all	Learning Modality Data Source District websites, Facebook pages, local news, state data	Included Elements: <ul style="list-style-type: none"> • Learning mode (2021–22) • School closures

Accurate national data must drive pandemic recovery agendas

It remains a policy failure that the Federal government did not systematically collect information on school closures and reopenings in the 2020-21 school year, but many state departments of education did attempt to systematize this data collection.

The COVID School Data Hub is filling in the gap of national reporting on state and local learning mode by aggregating and systemizing these data across states. Moreover, the COVID-19 School Data Hub is also augmenting other available trackers with state-verified information to add important context to this information.

Several states recently shared information with the COVID-19 School Data Hub and more data is anticipated to come online in coming months. With information from the four largest states (California, Florida, Texas, and New York) and a majority of the rest, it is likely that the COVID-19 School Data Hub will be the most accessible version of school modality information that is publicly available in the coming years.

As a research community with the broader goal of documenting the lived experiences of our students, families, and communities during the pandemic, as well as studying the long-term influence of the pandemic on our nation's students, these data sources should serve as a first-step and fodder for a long-term pandemic recovery agenda.