



Correlates of January 2022 COVID-19 Schooling Disruptions

February 1, 2022

The COVID-19 pandemic heavily disrupted the 2020-21 school year for students across the US (Kaufman & Diliberti, 2021). While some schools were able to operate fully in-person, others were hybrid or fully remote for all or part of the school year. Research has found that schooling disruptions were more common in school districts with more students of color and that disruptions were less common in the South as compared to the Midwest, Northeast, and West¹ (Oster et al., 2021). In particular, less access to in-person schooling has been linked to learning loss (Halloran et al., 2021; Hammerstein et al., 2021; Storey & Zhang, 2021) as well as adverse impacts on children's health and well-being (Hawrilenko et al., 2021; Viner et al., 2022)

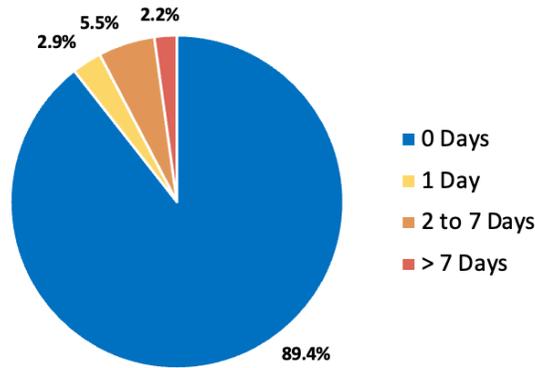
In the Fall of 2021, nearly all schools in the U.S. opened in a fully in-person learning mode. However, due to the rise of the Omicron variant of the COVID-19 virus, there has been an increase in disrupted schooling in January 2022. Some schools announced closures due to concerns about potential viral spread (for example in Chicago and Flint, Michigan), while many others have closed for short periods due to staff or student absences.

An open question is whether the same characteristics which determined closures in the past school year (2020-21) are factors in the current year. Burbio has been consistently tracking school operational status in a sample of 5000 school districts over the 2021-22 school year. In this report, we use this Burbio sample along with data from the COVID-19 School Data Hub on 2020-21 school closures and district demographic information. We compare characteristics for districts with and without closures in January 2022.

We divide districts into four groups based on their January 2022 school closure groups: closed for 0 days, closed for 1 day, closed for 2 to 7 days, or closed for 7 or more days during the month. Of the 5000 tracked districts, approximately 11% ($n=529$) had school closures for at least one day during January (see Figure 1). The District of Columbia, Delaware, New Jersey and Oklahoma had the largest share of districts with any school closures. New Jersey has the largest share of districts tracked with school closures greater than 7 days.

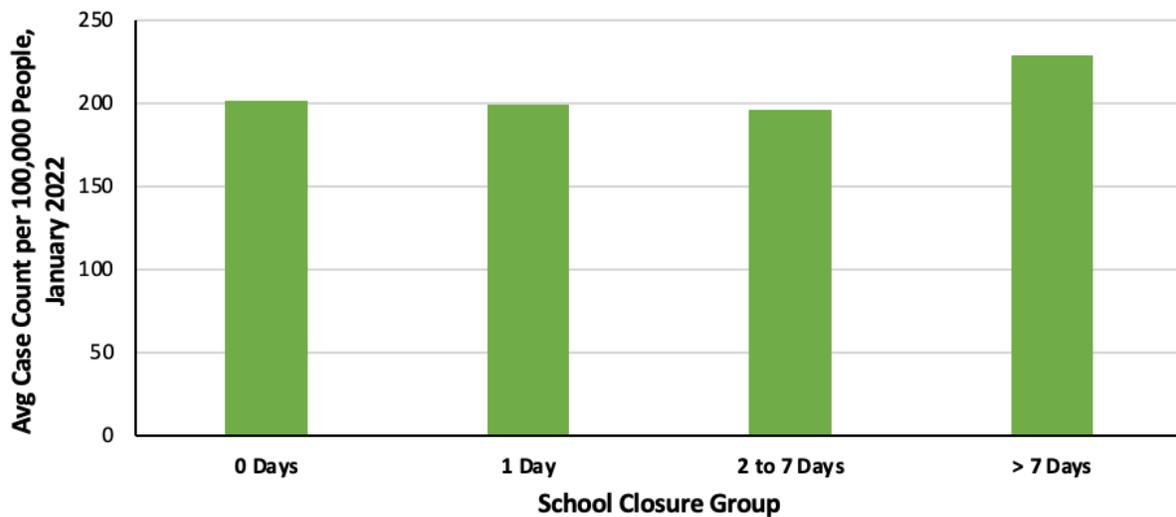
¹ Regions of the United States are defined by NCES.
<https://nces.ed.gov/nationsreportcard/hsts/tabulations/regions.asp>
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Figure 1. Percentage of School Districts by School Closure Group



Next, using COVID-19 case data from the New York Times, we connected school districts to their county’s average January 2022 case count data, and compared these counts across the four school closure groups (see Figure 2). We find that the average enrollment-weighted case count is highest in the districts with 7 or more school closure days (approximately 229 cases per 100,000 people), though comparable across the school districts with 0-7 days of school closure (approximately 200 cases per 100,000 people).

Figure 2. Average January 2022 COVID-19 Cases by School Closure Group



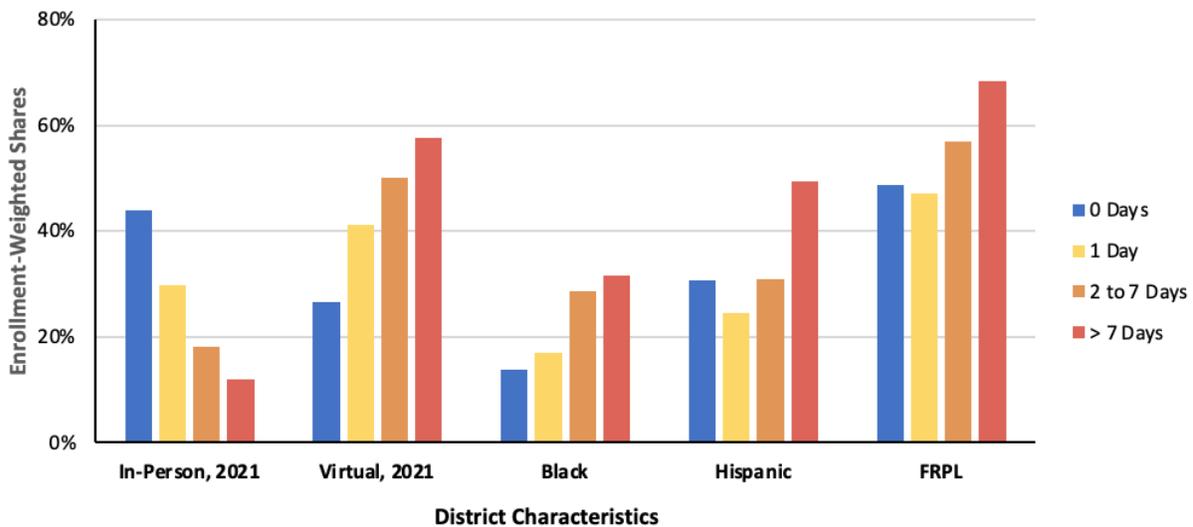
Note. Case data are available from the *Coronavirus (Covid-19) Data in the United States* repository by the New York Times, accessible at <https://github.com/nytimes/covid-19-data>. The information represents county-level data for cases and deaths, with seven-day averages and per 100,000 counts. Cases include both confirmed and probable cases.

In Figure 3, we illustrate enrollment-weighted differences in prior year school closures and demographics across school closure groups. The data clearly indicate that school closures are disproportionately affecting districts that had less in-person learning and more virtual learning in

the prior school year. For example, among the school districts with more than 7 days of closures in January 2022, only 12% of students were predominantly in-person in January 2021, while 58% were predominantly virtual. Conversely, of the school districts with 0 days of closures in January 2022, 44% were primarily in-person in January 2021, while 27% were primarily virtual.

We also find that districts with the most January 2022 closures serve more students of color and more students who are eligible for free and reduced price lunch. For example, in Figure 3, we show that districts with more than 7 days of school closures had student populations that were, on average, 32% Black and 49% Hispanic, compared to 14% and 31% in districts with no closures in January 2021, respectively.

Figure 3. Differences in Prior Year Closures and Demographics by School Closure Group



Note. Learning model data for school districts from 2020-21 from the COVID-19 School Data Hub were used to determine the *predominant* learning model over the course of the 2020-21 school year. These classifications were used for comparisons to January 2022 Burbio closure data. District demographic data are from the National Center for Education Statistics. FRPL = free and reduced price lunch.

A substantial portion of the variation in closures is driven by differences across states. However, regression results show that even comparing within states, there are more days of closure in January 2022 for districts with more virtual learning in the prior year and with a larger share of students in more vulnerable groups. We also note that *within* states, there is no significant relationship between case rates and closure days.

Overall, these data demonstrate that the same patterns that predicted access to in-person schooling in the 2020-21 school year continue to drive differences in schooling disruptions during the current school year. This underscores the importance of focusing resources on recovery in districts where schooling continues to be disrupted.

Background on Burbio

This project utilizes data from the Burbio School Tracker, which was generously shared by Burbio with the COVID-19 School Data Hub Team. Burbio's K-12 School Opening Tracker is available at <https://cai.burbio.com/school-opening-tracker/>.

References

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