



Higher chronic absenteeism threatens academic recovery from the COVID-19 pandemic

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The broad and substantial educational harm caused by the COVID-19 pandemic has motivated large federal, state, and local investments in academic recovery. However, the success of these efforts depends in part on students' regular school attendance. Using state-level data, I show that the rate of chronic absenteeism among US public-school students grew substantially as students returned to in-person instruction. Specifically, between the 2018–2019 and 2021–2022 school years, the share of students chronically absent grew by 13.5 percentage points—a 91-percent increase that implies an additional 6.5 million students are now chronically absent. State-level increases in chronic absenteeism are positively associated with the prevalence of school closures during the 2020–2021 school year. However, these increases do not appear to be associated with enrollment loss, COVID-19 case rates, school masking policies, or declines in youth mental health. This evidence indicates that the barriers to learning implied by the sharp increase in chronic absenteeism merit further scrutiny and policy responses.

education | COVID-19 | attendance

The substantial, negative effects of the COVID-19 pandemic on multiple indicators of well-being and development among children in the United States are increasingly well-documented. For example, evidence of deteriorating youth mental health recently motivated a coalition of leading health organizations to declare a national emergency as well as the publication of a rare public-health advisory from the US Surgeon General (1, 2). Recently released federal testing data also show that pandemic declines in student achievement in mathematics and reading largely erased the gains of the previous 20 y (3). This evidence motivated an unprecedented federal investment of nearly \$190 billion to support schools and students in academic recovery from the pandemic. Tracking data indicate schools are often using these resources to offer new in-school learning opportunities such as tutoring and summer programs as well as to fund specialist support staff (4).

However, the effectiveness of these investments relies in part on the expectation that students—particularly those that are most educationally vulnerable—can access these supports through consistent school attendance. More generally, consistent school attendance is an educationally consequential behavior. Both correlational and quasi-experimental studies find that student absences have negative effects on several academic and longer-run economic outcomes (5–7).

In this report, I present and examine comprehensive data on how the prevalence of chronic absenteeism changed in US public schools over the pandemic. Chronic absenteeism, defined as missing 10 percent or more of school for any reason, is a compelling and widely used index for a diverse variety of barriers to student learning. The underlying causes that contribute to chronic absenteeism include both out-of-school factors related to economic disadvantage and health as well as in-school factors such as school climate, safety, and practices related to instruction, discipline, and student supports (7, 8).

A large majority of US states now collect annual data on chronic absenteeism and use this measure as a key performance indicator in school-accountability systems mandated by the federal Every Student Succeeds Act (9). I gathered these state-level data for both the 2018 to 2019 and 2021 to 2022 school years by canvassing websites for state departments of education and state “report cards,” contacting state officials, and filing public-records requests. These two time periods provide information on both the last full school year untouched by the pandemic and the most current data available after schools returned to in-person instruction almost universally. This effort resulted in complete data for 40 states and the District of Columbia. These locations both used a common definition of chronic absenteeism and had data available for both school years (*SI Appendix*). They also serve 93 percent of K-12 public-school students in the United States.

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Findings

Fig. 1 illustrates, for each location, the chronic-absenteeism rates for the 2018 to 2019 and 2021 to 2022 school years. Notably, every state experienced increased chronic absenteeism with magnitudes varying from 4 to 23 percentage points. During the 2018 to 2019 school year, the enrollment-weighted chronic-absenteeism rate averaged 14.8 percent. In the 2021 to 2022 school year, as students returned to in-person instruction, this average grew to 28.3 percent. This increase of 13.5 percentage points represents 91-percent growth relative to the pre-pandemic value. A paired t test rejects the null hypothesis that these state-level changes were zero ($P < 0.001$). Given that the public-schools in the 50 states and the District of Columbia served roughly 48 million students in the 2021 to 2022 school year, these results imply an additional 6.5 million students became chronically absent during the recent return to in-person instruction.

The large and broad increases in chronic absenteeism indicate many students are failing to re-engage in schooling as in-person instruction returned. However, the underlying factors behind this striking growth are unclear and the leading state-level changes documented here ($n = 41$) are poorly powered to assess those causes credibly. Nonetheless, I examined the correlates of the state-level changes to provide initial, descriptive evidence on this question. For example, the growth in chronic absenteeism has a positive and statistically significant correlation with the 2018 to 2019 rate ($r = 0.310$, $P = 0.049$), indicating the states with higher pre-pandemic levels of chronic absenteeism experienced larger growth.

One prominent conjecture is the prevalence of remote-only instruction in public schools during the 2020 to 2021 school closures also contributed to increased chronic absenteeism through its impact on students' habits and academic engagement. I find the share of 2020 to 2021 school year in remote-only instruction has a positive and statistically significant correlation with the growth in chronic absenteeism ($r = 0.464$, $P = 0.002$; *SI Appendix*). However, in the 32 states with available data, the changed share of teens reporting increased sadness or persistent hopelessness appears unrelated to increased chronic absenteeism ($r = -0.085$, $P = 0.644$; *SI Appendix*).

Increased chronic absenteeism could also reflect attendance responses to increased pandemic-related illnesses and infection risk during the return to classrooms (10). However, the state-level growth in chronic absenteeism has a positive but statistically

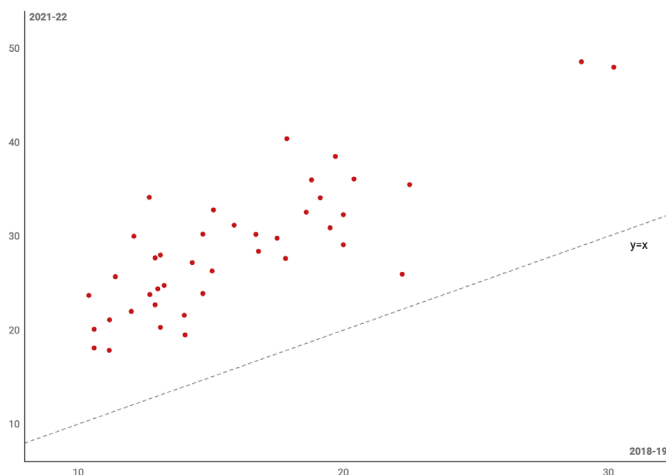


Fig. 1. State chronic-absenteeism rates for the 2021 to 2022 and 2018 to 2019 school years.

insignificant correlation with a state-level measure of per-person COVID-19 cases during the 2021 to 2022 school year ($r = 0.144$, $P = 0.369$; *SI Appendix*). Relatedly, increased chronic absenteeism could also reflect how school-attendance decisions responded to state masking regulations during the return to classrooms. While most states had no explicit policy, 16 states required masking in classrooms while eight states explicitly banned such requirements (*SI Appendix*). The growth in chronic absenteeism was similar across states with different masking requirements. Specifically, an ANOVA indicates chronic-absenteeism growth did not have a statistically significant relationship with these policy choices ($P = 0.208$).

Other possible challenges to interpreting increased chronic absenteeism concern the validity of the state-constructed measures. For example, between the 2018 to 2019 and 2021 to 2022 school years, US public schools experienced historically unprecedented enrollment declines of 2.3 percent. These declines reflected demographic change, responses to remote-only instruction, and shifts to private schools and homeschooling (11, 12). If this enrollment loss occurred differentially among those unlikely to be chronically absent, it would bias the observed growth in chronic-absenteeism rates upward. The correlation coefficient between the growth in chronic-absenteeism and the percent change in enrollment, while negative, is statistically insignificant ($r = -0.250$, $P = 0.115$; *SI Appendix*). Furthermore, a bounding exercise demonstrates the direct empirical relevance of enrollment decline can only be negligible. Specifically, under the extreme assumption that enrollment loss only occurred among those who are not chronically absent, the implied increase in the measured chronic-absenteeism rate is roughly one percentage point or less over a range of plausible values for the magnitude of enrollment loss and baseline chronic absenteeism (*SI Appendix*).

Another potential issue is that, while these states share a definition of chronic absenteeism as missing 10 percent or more of school, they differ in defining a valid day of attendance (13). Most states require a half-day of attendance or more. Others use hourly or period-based measures or allow this to be determined in a local or unclear manner (*SI Appendix*). However, the growth in chronic absenteeism was similar across states with different definitions of an attendance day. Specifically, an ANOVA cannot reject the hypothesis that these state differences are unrelated to the growth in chronic absenteeism ($P = 0.793$). Finally, a multiple regression of chronic-absenteeism growth on the measures available for all 41 observations indicates that only the share of the 2020 to 2021 school year spent in remote-only instruction is a significant predictor ($b = 10.13$, $P = 0.032$).

Discussion

This evidence indicates chronic absenteeism grew sharply among students across the United States as schools returned to in-person instruction. The exact causes of this striking growth are unclear. However, the state-level changes have statistically significant, positive correlations with baseline levels of chronic absenteeism and the prevalence of 2020 to 2021 school closures to in-person instruction. They do not appear to be correlated with other observed factors such as the declines in youth mental health, COVID-19 infection rates, state masking requirements, enrollment loss, and attendance definitions.

The limited, early evidence from several states that high chronic-absenteeism rates continued through the just-completed 2022 to 2023 school year underscores the continuing importance of these large increases and their underlying causes. A recent survey of 21 school districts also found that chronic absenteeism remains high (14).

Notably, the subgroup data available for several states also indicate that the pandemic growth in chronic absenteeism exacerbated pre-existing inequalities. Specifically, these increases, though similar across male and female students, were comparatively large among economically disadvantaged students as well as Black students and Hispanic students.

The evidence presented here suggests the imperative both to understand the sources of the rise in chronic absenteeism and to address it with well-implemented, evidence-based policies and practices. Intervention studies suggest that chronic absenteeism can be reduced through both preventative school-wide efforts and more intensive and targeted initiatives that identify and support chronically absent students. Examples of effective school-wide strategies include providing engaging, culturally relevant instruction and school-based supports such as free meals, health care (e.g., asthma management), and social services (7, 15). Another particularly promising school-wide practice is to engage and inform families about their child's school attendance. Doing so through carefully worded

postcards and text messages is particularly notable as a low-cost and scalable strategy. For students who are chronically absent, early detection and more intensive engagement through home visits and mentoring programs have also shown positive results. Undertaking these different approaches at scale is likely to require focused leadership as well as financial support as local districts anticipate the "fiscal cliff" of expiring federal support for pandemic recovery.

Materials and Methods

All data have been deposited in Open Science Framework (<https://doi.org/10.17605/OSF.IO/VFXJP>). *SI Appendix* contains additional information on the sample construction and the sourcing of the specific measures. The methods used are Student's *t* tests, ANOVA, and ordinary least-squares regression.

Data, Materials, and Software Availability. Excel data have been deposited in Open Science Framework (<https://doi.org/10.17605/OSF.IO/VFXJP>) (16).

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