## FALSE SIGNALS

## How Pandemic-Era Grades

 Mislead Families and Threaten Student Learning

EdNavigator

## Introduction

Schools everywhere are grappling with the lasting legacies of the pandemic: students lost valuable learning time and are still missing school at high rates. Educators, working overtime to help students catch up, are feeling the strain of these twin challenges.

## Young people are still behind academically.

During the pandemic, the average U.S. public school student lost the equivalent of half a year of learning in math and a quarter of a year in reading on state tests. ${ }^{i}$ Most estimates indicate that young people have not changed their learning trajectory enough to catch up to where they were pre-pandemic. This unfinished learning could cost the average American student upwards of $\$ 70,000$ in lifetime earnings.ii

## At the same time, students are missing school more than ever.

In 2023, student absenteeism is at an all-time high. Chronic absenteeism—missing at least 10 percent of the school year—has increased in every state since 2019, sometimes doubling or even tripling its pre-pandemic rate.iii This is deeply concerning. Students who miss more days at school have lower academic achievement ${ }^{\text {iv }}$ and are more likely to drop out of high school. ${ }^{v}$ Significant absenteeism now affects more than one in four American children. ${ }^{\text {vi }}$

## Yet most families report only modest concern about missed learning.

They believe that pandemic-era challenges are largely past and that their kids are already on grade level or will catch up soon. ${ }^{\text {vii }}$ How can educators and families have such a different read of the same situation?

We wondered if some of the disconnect was due to grades, families' most trusted signal of student performance at school. In national surveys of families by Learning Heroes, more than 8 in 10 say that their child gets all Bs or abovea finding that remained virtually unchanged throughout the pandemic. ${ }^{\text {viii }}$ Most families equate letter grades with grade levelix and see Bs as a sign that their kids are on track.

If grades are meant to communicate a child's overall educational standing, they should respond to changes in learning and school attendance. But have they? We set out to understand the link between attendance, learning, and grades-and the critical signals those grades are sending to families.

## Executive Summary

To understand the extent of this disconnect, our three organizations-all of whom have published separately on the messages that grades send to young people and their families-partnered with two public school districts to analyze the pandemic's effect on student absences, learning, and grades. We were particularly interested in students who are both chronically absent and behind academically, as they and their families are most in need of clear signals so they can support their children to correct course.

Here's what we found. In both districts, between 2018-19 and 2021-22:

- Student achievement fell. The average student is five months further behind in math and English Language Arts (ELA).
- Chronic absenteeism skyrocketed. Students are missing one to two more weeks of school, on average.
- Yet most students still earned the same grade-or better-in 2022 as they did in 2019.
- The number of students not yet on grade level and chronically absent quadrupled. Yet more than 40 percent of these students still earn Bs or better in core subjects.

In other words, grades are sending signals that students are doing well at a time when there is serious reason for concern. Before the pandemic, it was relatively rare for students to be both not yet on grade level and chronically
absent. Even if kids were behind, they were in class. But now, absences are compounding a performance challengeand many families are unaware there's an issue.

Educators aren't intentionally trying to mislead families. Assessing learning was extra challenging during remote schooling, and grades reflect more than just academic performance. Teachers also consider factors like participation and effort. But when kids regularly miss school, they may struggle to participate in class or complete their assignments-the very things that would contribute to earning a B grade.

## Unfortunately, too many report cards are sending false signals. Many families, trusting the information they've been given, simply aren't aware that their students may be behind.

The solution goes beyond grades. This isn't just about assigning more Cs and Ds. It's about an urgent need to identify and help the students most in need of personalized systems of support. We must help families get their kids to school and help school systems to share a more realistic picture of students' performance, especially when young people are below grade level.

## Methodology

This analysis is informed by aggregated data from two public school districts. This is a limited sample size and not intended to represent students nationally. However, the trends align with emerging research on absences and grade inflation, so we expect many school systems to have similar patterns.

The studied districts differed in size and achievement relative to national averages. ${ }^{\times}$Due to these differences, all analyses were performed separately by district.

- District $A$ is a smaller district with student achievement rate above the national averages.
- District B is a larger district with student achievement around the national average.

Both districts provided historical data on students in grades 3-12 and the grades they earned in all courses since the 2017-18 school year. This gave us two full pre-pandemic school years on which to compare post-pandemic results. For most students, these grades were on a traditional 0-100 scale, with grades of 90 or above equal to an A, 80-89 equal to a B, and so on. For each student in each school year, we used their average grade earned in core subject courses: English Language Arts (ELA), math, science, and social studies. ${ }^{\text {xi }}$

Our primary research interest was understanding how students' grades changed from pre-pandemic school years to post-pandemic school years and how those changes corresponded to changes in other key educational outcomes. Specifically, we focused on three related student outcomes:

| Not yet on grade level | Behind grade level in math or ELA based on their end-of-course or end-of-grade <br> assessment. Only students with tests in both subjects are included. |
| :--- | :--- |
| Chronically absent | Missing at least 10 percent of the school year (typically 18 or more days). |
| Not yet on grade level and <br> chronically absent | Both not yet on grade level in either math or ELA and chronically absent during the <br> same school year. |

Though we were able to track most of these outcomes for each school year between 2017-18 and 2021-22, we focused primarily on how outcomes changed from the last full year prior to the pandemic (2018-19) to the first mostly in-person year post-pandemic (2021-22). xii

Because both districts provided data on multiple school years, many of our analyses tracked the exact same students over time. We looked at grades, attendance, and performance of individual students in 2019 and again in 2022, using models to account for factors like the subject of the achievement tests. ${ }^{\text {xiii }}$ By doing so, we could examine the extent to which the same student, earning the same grade, tended to get different achievement and attendance outcomes after the pandemic.

## Findings

Student achievement fell: The average student is about five months further behind.
Most students lost academic ground during the pandemic. In both districts, the average student was about five months further behind in 2022 than they were in 2019, according to math and ELA achievement scores. Learning loss was just as prevalent in the higher-performing District $A$ as in District B.

For the subset of students who completed both math and ELA assessments in 2019 and 2022, most saw declines in their achievement scores post-pandemic. In District A, 55 percent of students earned lower scores in 2022; in District B, 62 percent of students did. ${ }^{\text {xiv }}$ Students' pandemic learning losses were both meaningful and widespread.

FIGURE 1 | Changes in student achievement from 2019 to 2022

Difference in districtwide average math and ELA achievement from 2019 to 2022


District A

Percent of students who had lower math and ELA achievement in 2022 than 2019


Note: All test scores were converted to student-level standard deviations away from proficiency by taking the difference between each student's raw test score and the score needed to be labeled proficient, then dividing by the student-level statewide standard deviation. We then converted to "months of learning" by assuming that 9 months ( 1 school year) was equal to 0.25 standard deviations. For the mean difference in test performance between 2019 and 2022, all students who had a math and ELA test result were included, even if they only had data in one year. For the percent of students who had lower math and ELA achievement in 2022 than in 2019, only students who had both test results in both years were included. We also applied the same student fixed effects regression approach described above for attendance on students' average math and ELA test scores and found that in both districts, 2022 was associated with a decline in test performance compared to 2019.

Chronic absenteeism skyrocketed: Students are missing one to two more weeks of school, on average.

Chronic absenteeism surged in both districts. In District A, the district with relatively high student learning, students were twice as likely to be chronically absent post-pandemic and missed about a week more of school on average. In District $B$, students were more than five times as likely to be chronically absent post-pandemic and missed about two more weeks of school on average. ${ }^{\mathrm{kv}}$

Around one in five students is now missing 18 or more days out of the school year. That's the equivalent of a missed day every two weeks. It's important to understand that all absences matter, even excused ones like family vacations or illnesses. The missed days add up.

When students aren't at school, it's far more challenging for them to learn the content that is being covered. They can't participate in class or complete their assignments. ${ }^{\text {xvi }}$ They might struggle to do, in short, many of the things that would contribute to earning an A or B grade.

FIGURE 2 | Chronic absenteeism rates by district and school year


Note: Grade 3-12 students only. We defined chronic absenteeism as missing at least $10 \%$ of the potential school days in a given school year. For District A , we were not provided daily attendance rates for all students in all years, so we calculated attendance based on the number of absences in students' home room or ELA class depending on the grade-level. This approach was highly correlated with daily attendance records when provided ( $r>0.9$ ). For District B, students' daily attendance rate was used.

However, most students still earned the same grade—or better-in 2022 as they did in 2019.
Despite the learning disruptions of the pandemic and the surge in absences, grades have barely changed. Overall, most students-73 percent in District A and 66 percent in District B-earned the same letter grade or better in the same subject area in 2022 than they did in 2019. xvii

At the individual student level, this means students are getting generally the same grade even when their learning circumstances have changed. To assess this, we looked at attendance and test performance of individual students in 2019 and then again in 2022, using modeling to account for factors like the subject of the assessments, students' grade-band (elementary, middle, or high), and, most importantly, the grades they earned. This allowed us to examine whether the same student tended to have different outcomes in 2022 than

From 2019 to 2022, students' academic performance and attendance changed significantly. Their grades did not. 2019, after accounting for these factors.

The same student, earning the same grade in core subject courses in 2022, was far more likely to have lower achievement and be chronically absent than they were in 2019. In one district, the same student was 11 months further behind grade level and absent 10 more days, on average. In the other, the same student was five months further behind grade level and absent 15 more days, on average. In other words, students' academic performance and attendance changed significantly. Their grades did not.

The same student who earned the same core subject grade in 2022 as in 2019 was...

## in District A

11months further
behind grade level on their associated end of course or end of grade assessment, and hadmore absences

## in District B

## 5 <br> months further

behind grade level on their associated end of course or end of grade assessment, and had

15 more absences

Note: The values in the figure estimated from student fixed-effects regression models from all available data between 2018 and 2022. We ran a separate model for each outcome and each district. These models controlled for the grade students earned (either in the EOC/EOG course with the test outcome or across all core courses for the absence outcome), students' grade-band (i.e., 3-5, 6-8, or 9-12), school year, and for models with test outcomes, the subject area of the test. Student fixed-effects regression models compare each students' outcome to his/her mean outcome across all years of data and allowed us to compare the estimates for different years to ask whether the same exact student had better/worse achievement or attendance outcomes if they earned the same grade. As robustness checks, we ran the same fixed-effects models using 2019 and 2022 only and separately by subject instead of controlling for subject, as well as cross-sectional models controlling for several student demographic characteristics and obtained qualitatively similar results - though in District A, students' 2022 math performance dropped more substantially than their ELA performance. Months of learning was calculated by converting the estimated test score difference between 2019 and 2022 in student level standard deviation units and assuming 0.25 standard deviations equals 9 months of learning.

Lost in these averages are what these results can mean for individual students. Take for example, Rosie, xviii a student in our data who was in fifth grade in 2019. In that year, she was absent only three days, was about two and a half months above grade-level and earned an average grade of 83 across her core classes.

In 2022, Rosie earned the same average grade of 83-a signal to her family that performance was unchanged-but was now absent 10 days and scored about 10 months behind grade-level on her math and ELA assessments. Rosie's performance in 2022 was clearly different than in 2019, but her family received the same report card.

Worryingly, the number of students not yet on grade level and chronically absent quadrupled. Yet many are still earning Bs or better in core subjects.

Before the pandemic, it was relatively rare that students were both not yet on grade level and chronically absent. Even when kids were behind in school in a core subject, they were physically in class, where teachers could work with them to catch up. But as student absences surged, the overlap increased. The number of students who were both not yet on grade level and chronically absent more than quadrupled in both districts. In district A , this population grew from 1 to 9 percent of the student body; in district B, it grew from 3 to 14 percent.

This is a significant student population. Across both districts, over 5,000 students were both behind academically and regularly missing school. This is deeply problematic because students are much more likely to catch up if they're attending school regularly.

FIGURE 4 | Number of students not yet on grade level and chronically absent


Worryingly, despite exhibiting these high-risk academic indicators, about 4 in 10 of these students brought home a B average or higher in their core subject classes. What's more, the typical grade earned by these students actually rose between 2019 and 2022, by four points in District A and seven points in District B. ${ }^{\text {xix }}$

These are the students who deserve urgent attention and support. Yet too many are earning As and Bs, grades that signal to families that they're doing fine.

FIGURE 5 | Percent of students who are not yet on grade level and chronically absent who earned a B or higher, by school year
Average core subject grade


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## Recommendations

Our analysis provides important evidence that districts are facing a new post-pandemic reality in which far more students are both not yet on grade level and chronically absent. Grades, families' most trusted indicator of academic standing, are not accurately signaling this new reality in which students need more support.

As a nation, we have a brief window of opportunity to address these twin issues of learning and attendance and to help students catch back up. Both districts and families can take simple, immediate steps to understand the extent of these issues in their own system and their effect on individual students.

## For Districts

Educate all families about the importance of attendance. Chronic absenteeism is commonly misunderstood. Families may equate absenteeism (missing school for any reason) with truancy (unexcused absences). They often don't think that missed days here and there can become problematic. ${ }^{\text {xx }}$ But all absences-whether for illness, vacation, or any other reason-quickly add up. Districts must stress the importance of sending kids to school whenever possible, where they can learn best.

Identify students who need the most additional support. Districts can use existing student attendance and proficiency data to identify the set of students who are both not yet on grade level and chronically absent. This can be a straightforward analysis: what percent of chronically absent students are earning Bs or better in their core classes? What percent of students who did not score proficient on their end-of-grade or end-of-course assessment earned a B or better in their associated course? Districts should check whether the grades for these young people are accurately communicating their educational realities.

Send clear signals to students who need extra support. In addition to proactive communication to all families about the critical importance of regular school attendance, districts should send targeted communications to the families of students who are not yet on grade level and chronically absent.

- Re-norm grading standards with district staff. Share the district analysis of learning, absences and grades with teachers, school leaders and central office staff. Send a clear message that the goal isn't to fail more young people but to ensure that families are clear on where their students need more support to perform on grade level. Get educator input on the root causes of grade misalignment and identify district actions that would support more transparency in grades.
- Provide training for educators. Ask schools to review grades for the students who need extra support and identify areas to recalibrate. Provide training and support for teachers and school leaders who might be having a candid conversation with families for the first time. For example, Learning Heroes offers teacher guides and a professional learning series on maximizing parent-teacher conferences, talking to families about test scores, and leaning into candid conversations.
- Engage families about student performance. Transparently communicate to students and their families where they stand against grade level standards, particularly for students with both performance and attendance concerns. Avoid relying on reports provided by your benchmark assessment company; they tend to be hard for families to read. Instead, consider creating simple summaries of assessment data to clearly convey whether students are performing on grade level. This Learning Heroes paper offers family engagement best practices.


## For Families

Make sure your child attends school every day. During the pandemic, with remote schooling and quarantine rules, students being at home became the norm. Now it's time to reset. It's critical that students attend school every single day unless they are truly ill. Families should work to discourage school avoidance (refusing to attend). Pediatricians recommend being empathetic but firm (see tips from the American Academy of Pediatrics and Harvard Medical School). Outside of genuine illness, keep avoidable absences to a minimum. Your child should be absent as rarely as possible and not more than 10 times in a full school year.

Go beyond grades. Your student's grade carries some meaning, but it isn't a complete signal of how they are doing educationally. Compare your child's report card to their test score reports and talk to their teacher if you see a mismatch (for example, reading scores way below grade level but an A in ELA).

Teachers say the best way to know how your child is progressing is to be in regular contact with the teacher, rather than relying on report cards. ${ }^{\text {xxi }}$ This Learning Heroes guide suggests three ways families can team up with teachers to understand how students are performing.

- Help the teacher get to know your child with a Dear Teacher letter.
- Find out what your child is expected to learn this year, with a student quiz and teacher questions.
- Make a game plan to stay connected with your child's teacher throughout the year.

Make the most of parent-teacher conferences. This EdNavigator guide gives families quick tips on how to make the most of parent-teacher conferences, which tend to be short. You don't need to be a math or reading expert to understand your student's performance. Ask for information with simple, direct questions:

- Is my child performing on grade level?
- What's the most important thing my child should focus on?
- What can I do at home to help my child?
- What's my child like in class?

For more family resources, visit Go Beyond Grades and The Busy Family's Guide to School.

## References

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ii Hanushek, E. (2023, January 4). The economic cost of the pandemic: State by state. Hoover Institution. https://www.hoover.org/research/economic-cost-pandemic
iii Dee, T. S. (2023, August 10). Higher Chronic Absenteeism Threatens Academic Recovery from the COVID-19 Pandemic. https://doi.org/10.31219/osf.io/bfg3p
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${ }^{v}$ Liu, J., Lee, M., \& Gershenson, S. (2021). The short-and long-run impacts of secondary school absences. Journal of Public Economics, 199, 104441.
${ }^{\text {vi }}$ Dee, T. S. (2023, August 10). Higher Chronic Absenteeism Threatens Academic Recovery from the COVID-19 Pandemic. https://doi.org/10.31219/osf.io/bfg3p
vii Kane, T., \& Reardon, S. (2023, May 11). Parents don't understand how far behind their kids are in school. The New York Times. https://www.nytimes.com/interactive/2023/05/11/opinion/pandemic-learning-losses-steep-but-not-permanent.html
viii Learning Heroes (2022). Hidden in plain sight: A way forward for equity-centered family engagement.
https://learningheroes.wpenginepowered.com/wp-content/uploads/2022/06/Parents22-Research-Deck-1.pdf
${ }^{i x}$ Learning Heroes (2022)
x Districts' achievement relative to national averages based on estimates from the Educational Opportunity Project at Stanford University, https://edopportunity.org/
${ }^{\text {xi }}$ Some elementary schools used standards-based grading, and in those cases, we translated grades to the 0-100 scale based on conversion recommendations provided by the district. And in high schools, both districts provided students taking advanced courses (e.g., Advanced Placement) a numeric boost in their grade because of the increased course rigor. However, for all analyses, we use students' unweighted grades to make comparisons across classes more consistent.
${ }^{\text {xii }}$ Because the 2020-2021 school year contained substantial remote instruction, attendance outcomes are more difficult to interpret in this year and test-taking participation was markedly lower. Though we use this year of data in several robustness checks of our findings, we do not present any results from this year in this report.
${ }^{\text {xiii }}$ To examine differences over time for the same students, we used a statistical approach called student fixed-effects regression modeling, where we can estimate the typical difference in outcomes for the same student in different years after accounting for other key factors, like a student's grade-band or the subject of the achievement test. This approach is helpful for interpreting our results as it means they are not based on changes to the overall student population composition during this time frame.
${ }^{\text {xiv }}$ See note in Figure 1 for more details about how we analyzed test score data.
${ }^{x v}$ Though Figure 1 presents cross-sectional percentages, we also used student fixed-effects models predicting the number of days absent for the same student pre-pandemic to post-pandemic, after also controlling for a student's grade-band (e.g., elementary, middle, or high). Compared to pre-pandemic, these models suggested that the same student tended to miss about 5 more school days post-pandemic in District A and about 20 more days in District $B$.
xvi Ehrlich, S. B., Gwynne, J. A., Stitziel Pareja, A., Allensworth, E. M., Moore, P., Jagesic, S., \& Sorice, E. (2014).
xvii These percentages are based on comparing students' broad letter grade ( $A=90-100 ; B=80-89 ; C=70-79$; $D$ or Lower $=<70$ ) in the same subject area between 2019-2019 and 2019-2022. We also used student fixed-effects models predicting the typical raw grade earned in core subject classes for the same student pre-pandemic to post-pandemic, after controlling for a student's gradeband (e.g., elementary, middle, or high). These models suggested that the pandemic had a minimal effect on students' letter grades. Compared to pre-pandemic, these models estimated that the same student tended to earn a grade about 1 point (out of 100) lower in District $A$ and 0.3 points (out of 100 ) higher in District $B$.
xviii This is a pseudonym, and the pretend gender of this student was chosen arbitrarily. We did not have access to non-anonymous student-level data.
${ }^{\text {xix }}$ Note that because so few students were chronically absent and not yet on grade-level in 2018-2019, these differences are crosssectional and are not entirely based on the same students over time.
${ }^{x x}$ Rogers, T. \& Feller, A. (2018). Reducing student absences at scale by targeting parents' misbeliefs. Nature Human Behaviour. https://scholar.harvard.edu/sites/scholar.harvard.edu/files/todd_rogers/files/rogers_feller_absenteeism.pdf
xxi Learning Heroes (2022).


[^0]:    Note: See Figure 1 for definition of chronic absenteeism in each district. Students not yet on grade level are those who were not proficient on their end-of-grade or end-ofcourse math or ELA assessments. Only students who completed both a math and ELA test were included. Ns varied substantially by year as significantly fewer students were both chronically absent and not yet at grade level in 2019. Ns were higher in 2022.

