



# Pandemic Enrollment Fallout: School District Enrollment Changes Across COVID-19 Response

By Nat Malkus

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## Key Points

- The COVID-19 pandemic caused the largest enrollment declines in the history of American public schools.
- School districts' operations explain large differences in 2021–22 enrollments, as districts that spent more of 2020–21 in person saw enrollments rebound, while the districts that were remote longer saw more students leave.
- Enrollment rebounds fell along partisan lines. In 2021–22, most districts that voted for Donald Trump rebounded, while enrollment continued to fall in districts that voted for Joe Biden.
- Schools' consequential operational decisions stemmed from communities' cautious or assertive responses to the pandemic, and that broader COVID cultural response drove divergent enrollment changes.
- Districts that spent more of 2020–21 remote face the largest enrollment declines and are more likely to see substantial revenue declines associated with them.

In mid-March 2020, the COVID-19 pandemic shuttered the nation's schools for the rest of the school year. The following fall, over 1.2 million K–12 public school students left the public school system—more than one in 37 students. And the pandemic was just getting started. Over the first full pandemic school year—while COVID cases fluctuated dramatically and COVID vaccines eventually emerged—school districts offered a mix of remote, in-person, and hybrid options. By year-end, districts' sum total of in-person instruction differed dramatically. So did K–12 enrollments in the second pandemic school year.

This report examines the pandemic's effect on public school enrollment through the 2021–22 school year overall and by district characteristics including

instructional offerings. Enrollment changes have serious consequences for school districts in not only student well-being and parent satisfaction but also long-term revenue. These enrollment data represent the aggregation of weighty decisions millions of families across the country made at the kitchen table. The sharp enrollment declines provide a sobering, if interim, answer to the question facing school districts after the dramatic initial pandemic enrollment declines: Will students return to public schools?

This report describes pandemic enrollment changes for 48 states and projects potential revenue implications school districts face. I begin by showing overall enrollment changes over the three years of the pandemic nationally and by state. Next, I describe differences

## Return to Learn Tracker Enrollment and Revenue Methodology

Enrollment data for this report were gathered from 48 states and the District of Columbia, representing over 15,000 school districts. State data came from state's departments of education, as they made their data available online. As of the publication of this report, data are unavailable for Kentucky and Tennessee. For all 48 states, except Kansas and Rhode Island, enrollment data are available for kindergarten through 12th grade.<sup>1</sup> A small share of district enrollments and a slightly larger percentage of grade-level enrollments within districts are excluded from these analyses because accurate counts across years could not be calculated due to suppression rules, which varied across states.

Enrollments in virtual schools are partially excluded from these counts. My concern is primarily with enrollments in brick-and-mortar schools, so I remove virtual *district* enrollments from state counts. However, virtual or online schools that are not a single district, but one of many schools within a district, could not be disaggregated from district totals uniformly and are thus included in these totals. As such, the enrollment declines published here are the upper bound of total brick-and-mortar enrollment declines. The district data used

are comparable within states and across years but may differ from the final published enrollment counts for districts.<sup>2</sup>

Revenue data used in the last section of the report are extrapolated from the last available national collection of district fiscal data from the National Center for Education Statistics's Common Core of Data for the 2018–19 school year.<sup>3</sup> These data can only approximate the fiscal impacts districts face because of the various ways revenues flow to school districts. I approximate revenue impacts by tallying districts' state and federal revenues and multiplying them by enrollment declines.<sup>4</sup>

These revenue estimates are only a proxy for total revenue impacts, because they neither control for subpopulation differences nor account for various hold-harmless provisions that states have instituted for districts with falling enrollments. As such, they should be interpreted with care. Hold-harmless provisions certainly mean that the full pre-pandemic revenues associated with these enrollment declines will not equal revenue shortfalls for districts over the short run. However, they are useful indicators of the revenue implications for districts, or states, should current enrollments remain stable over time.

by districts' in-person instructional offerings in the 2020–21 school year. I provide context for differences by instructional offerings by examining enrollment changes by factors that may have shaped, rather than *been* shaped by, school districts' responses. The final section explores the potential fiscal implications enrollment changes could pose for districts.

### Pandemic Enrollment Changes

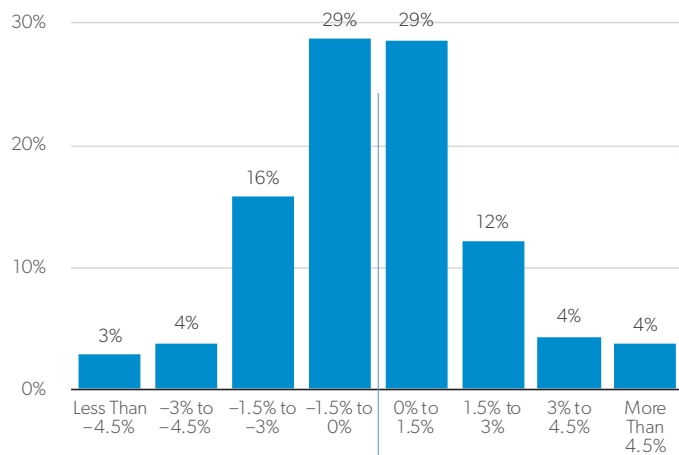
Across the nation, public school K–12 enrollment in the 2020–21 school year dropped by 2.7 percent, a loss of over 1.2 million students.<sup>5</sup> The following year, enrollments dropped negligibly, by 0.02 percent, or another 87,000 students. Taken together, public school K–12 enrollment fell by 2.9 percent, or about 1.3 million students, since the pandemic began.

These enrollment changes are the largest in the history of public schooling. For reference, the largest enrollment shift over the prior 10 years was an increase of 0.55 percent.<sup>6</sup> The change closest to pandemic declines during the same period was an increase of 0.02 percent. As seen in Figure 1, enrollment shifts were relatively small and evenly distributed in the pre-pandemic school year, with most districts within 1.5 percent of the prior year's enrollment.<sup>7</sup> By contrast, over 85 percent of districts had enrollment losses the year after the pandemic started. Almost half of districts saw declines of 3 percent—a sevenfold increase from the prior year. Simply put, enrollment declines in the first pandemic school year were not only large but nearly universal.

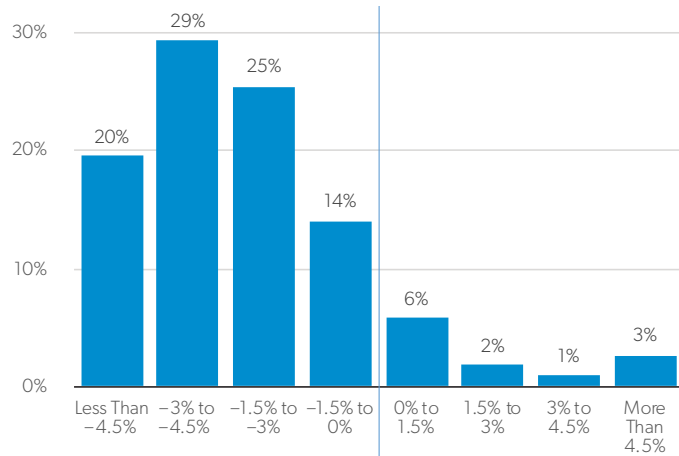
It's worth noting two differences between the pre-pandemic and second pandemic school year enrollment

**Figure 1. Distribution of Public School Enrollment Changes Across Three School Years**

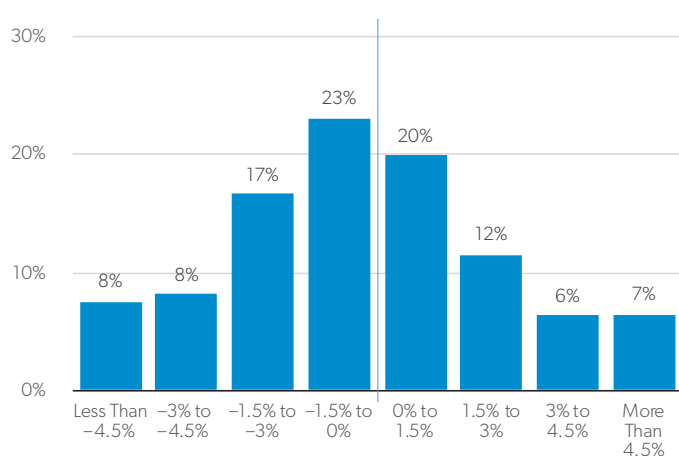
**Panel A. Pre-Pandemic, 2018–19 to 2019–20**



**Panel B. First Pandemic Year, 2019–20 to 2020–21**



**Panel C. Second Pandemic Year, 2020–21 to 2021–22**



Note: Distributions are weighted by 2020 student enrollment.  
Source: Return to Learn Tracker, Enrollment Tracker: 2020–2022, <https://www.returntolearntacker.net/2020-22-enrollment-changes/>.

changes. First, the distribution in the second pandemic school year leans more toward enrollment losses, though not nearly as much as in the first pandemic year. Second, the distribution of changes was more flat in the second pandemic year, meaning larger gains and losses were more frequent.<sup>8</sup>

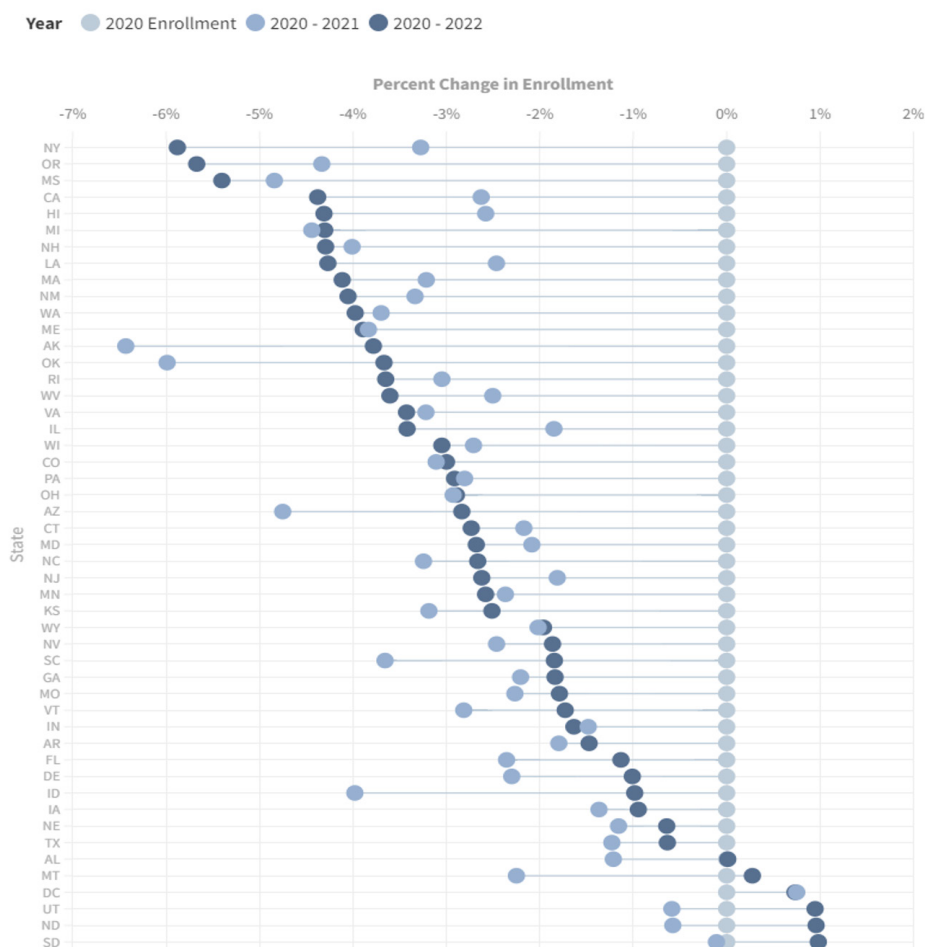
How did enrollment changes vary across states? Figure 2 displays dramatic differences by states, showing 20 of 48 states declined by 3 percent or more between 2020 and 2022, while just five states saw net gains. The three states with the largest declines—New York, Oregon, and Mississippi—lost more than one in 20 students between 2020 and 2022. No state had larger enrollment declines in the second pandemic year than it had in the first. There’s more to the story, however, than simple declines. Districts that returned to in-person instruction more quickly saw enrollments rebound, while those that stayed remote longest saw further declines.

**Enrollment Changes by 2020–21 Instructional Offerings.** The amount of in-person learning districts offered in the first pandemic school year was by far the greatest predictor of total pandemic enrollment changes. As such, some background on those instructional offerings is warranted.

During the first pandemic school year, districts’ in-person instructional offerings varied widely. While the early summer outlook was for a nationwide return to in-person schooling, the unexpected late summer surge in COVID cases, after the spring’s universal school closures, made for fraught reopening decisions. One district superintendent described choosing between a more cautious or assertive approach to in-person pandemic learning as “trying to find the best worst option.”<sup>9</sup>

Many superintendents took the cautious route of remote instruction. One explained that decision simply, describing the cautious route of beginning the school year fully remote as follows: “If you are using safety as your guide . . . then this is the best option you have.”<sup>10</sup> Others offered in-person instruction because remote learning was untenable, describing it as “the absolute worst scenario. You don’t have relationships with kids, and teachers don’t know their kids.”<sup>11</sup> District leaders struggled with those competing priorities—mitigating COVID risk and

**Figure 2. States' Enrollment Declines Across Two Pandemic School Years, 2019–20 to 2021–22**



Source: Return to Learn Tracker, Enrollment Tracker: 2020–2022, <https://www.returntolearntacker.net/2020-22-enrollment-changes>.

returning to in-person learning—for the entirety of a school year shrouded in the fog of the pandemic, which led to districts with dramatically different amounts of in-person instruction over the 2020–21 school year.

For the remainder of the report, I delineate these two competing priorities by describing districts and communities as either COVID cautious or COVID assertive. These descriptors are not meant to be pejorative, but rather to help differentiate patterns of district responses. The most COVID-cautious districts are those that spent the most time in remote learning and maintained other mitigation measures (such as mask requirements) relatively longer throughout the pandemic. COVID-assertive districts, by contrast, returned to in-person instruction earlier and removed mitigation

measures more quickly compared to their more cautious peers. These categorizations are not meant to imply that districts either threw caution to the wind or were not interested in returning students to the classrooms. Instead, these categories describe which of the two goals the districts prioritized when pressed.

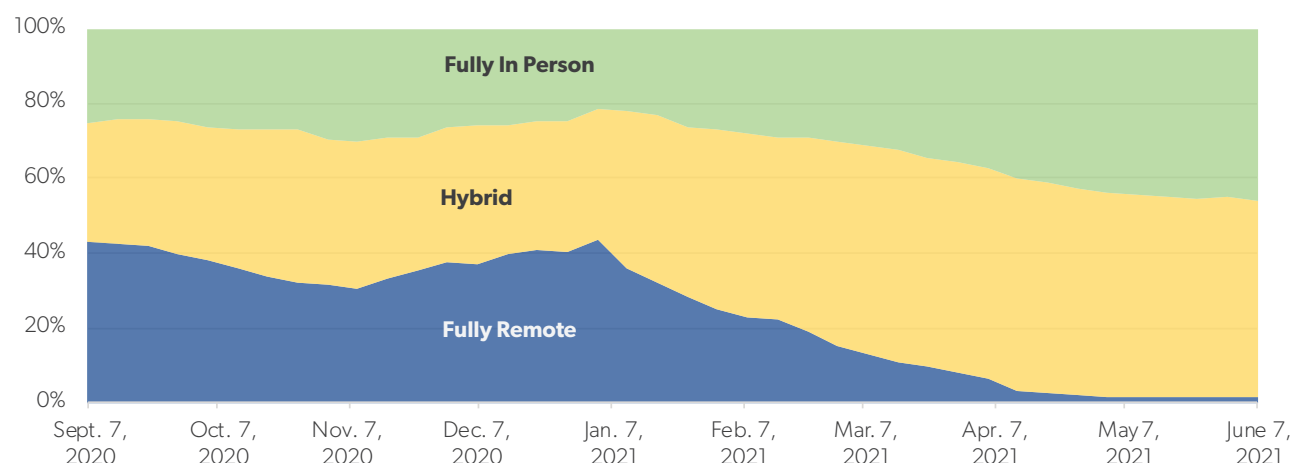
As seen in Figure 3, Return to Learn Tracker instructional data show that for the first half of the 2020–21 school year, 30 percent of students attended fully in-person districts. For the remainder of the year, that percentage stayed under 50 percent.<sup>12</sup> Just over one-quarter of students (28 percent) attended districts that offered in-person instruction for at least half the 2020–21 school year. Another 23 percent attended districts that were fully remote for at least half the school year. Research has shown the pandemic's large

negative effects on student learning.<sup>13</sup> While students across the nation are experiencing learning loss, those who were in more remote districts are faring worse.<sup>14</sup>

To examine enrollment changes by 2020–21 instructional offerings, I used total weeks of in-person instructional offerings to divide districts into three similarly sized groups: the most in person, the most remote, and the middle group of districts that fell between these extremes.

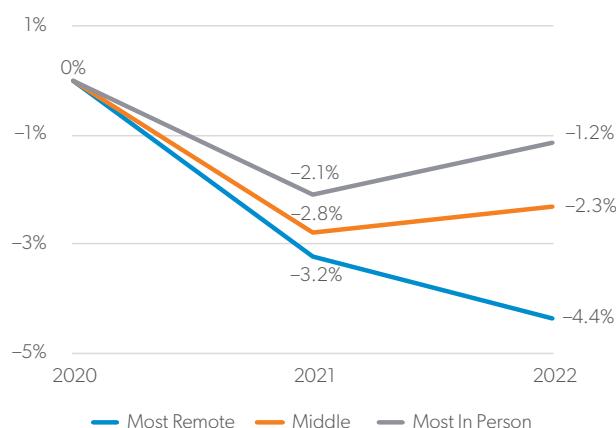
Enrollment in the most-remote districts declined by 3.2 percent in the first pandemic year and another 1.2 percent the next year for a two-year net decline of 4.4 percent (Figure 4).<sup>15</sup> By contrast, the most-in-person districts had a 1.2 percent net decline, the product of a 2.1 percent decline followed by a 1 percent rebound

**Figure 3. District Weekly Instructional Offerings, 2020–21 School Year**



Source: Return to Learn Tracker, Change in Instructional Status, [https://www.returntolearnteacher.net/instructional\\_status](https://www.returntolearnteacher.net/instructional_status).

**Figure 4. Enrollment Changes by 2020–21 Instructional Offerings, 2019–20 to 2021–22**



Source: Return to Learn Tracker, Enrollment Tracker: 2020–2022, <https://www.returntolearnteacher.net/2020-22-enrollment-changes>.

the following year. Districts in the middle category fell between these two, with a 2.3 percent net decline from a drop of 2.8 percent, followed by a rebound of 0.5 percent during the second pandemic school year.

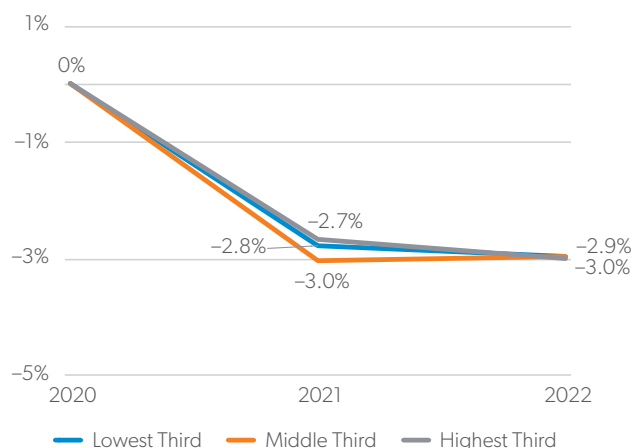
The scale of these enrollment shifts is enormous, with each category of in-person instruction including more than 2,400 districts and tens of millions of students. While percentages are accurate, expressing changes in terms of shares of students may be more intuitive. Across the most-remote districts, enrollment fell by one in 23 students. By contrast, the middle group

of districts lost one in 44 students, and the most-in-person districts lost an average of one in 87 students across two years.

How do differences in enrollment vary by other factors? Surprisingly, enrollment changes did not vary systematically by cumulative COVID case rates. I categorized school districts into three equally sized groups by their cumulative cases per 100,000 population from September 7, 2020, to June 7, 2021, the same time frame as the instructional offerings data were collected. Figure 5 compares enrollment declines by the third of districts with the highest, middle, and lowest COVID case rates during this period. One might expect to see striking enrollment differences by case rates, especially early in the pandemic when they served as the primary barometer of pandemic threat. Figure 5 is striking because it shows the conspicuous lack of that expected relationship.<sup>16</sup>

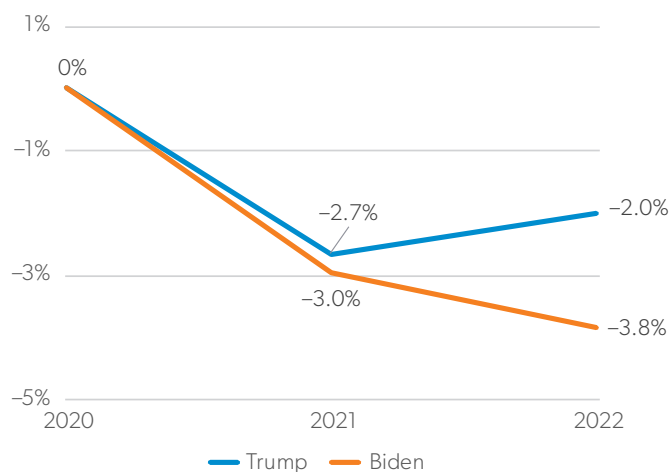
**Enrollment Changes by COVID Culture.** Factors affecting districts' instructional offerings did not occur in a vacuum but point to a broader force behind them: local COVID culture. The most-remote districts were in communities that were often COVID cautious outside the classrooms. The most-in-person districts were similarly COVID assertive in factors outside of schooling. Communities' pandemic responses fell along political lines and in terms of vaccine hesitancy, masking behaviors, and masking policies.

**Figure 5. Enrollment Changes by COVID Cases per 100,000, 2019–20 to 2021–22**



Source: Enrollment data from Return to Learn Tracker, Enrollment Tracker: 2020–2022, <https://www.returntolearntracker.net/2020-22-enrollment-changes>. COVID-19 case rates were calculated using data from USAFacts, “US COVID-19 Cases and Deaths by State,” <https://usafacts.org/visualizations/coronavirus-covid-19-spread-map>.

**Figure 6. Enrollment Changes by 2020 Presidential Vote, 2019–20 to 2021–22**



Source: Return to Learn Tracker, Enrollment Tracker: 2020–2022, <https://www.returntolearntracker.net/2020-22-enrollment-changes>.

If instructional offerings were downstream of broader cultural pandemic responses, it’s worth considering whether instructional offerings are a diagnosis for enrollment consequences or merely a symptom. Below, I provide evidence to argue that COVID culture drove school districts’ instructional offerings and thus enrollment differences.

If a persistent COVID cultural divide drove enrollment differences, why would there be little divergence in the first pandemic school year compared to the second? The answer is that school districts’ widely varying instructional offerings became instrumental forces that shaped parents’ responses. COVID culture was the ultimate driver of instrumental instructional offerings and, thereby, families’ subsequent decisions and, ultimately, district enrollments.

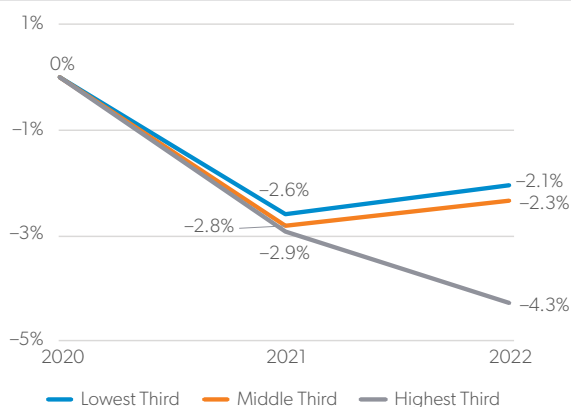
Politics seems to increasingly polarize every aspect of American life, and schools’ pandemic responses were no exception. As seen in Figure 6, school districts in counties that voted for Donald Trump offered far more in-person instructional time than did those in counties that voted for Joe Biden, and they had enrollment changes to match.<sup>17</sup> Enrollment drops in the first pandemic school year were similar across Trump and Biden districts (–2.7 percent vs. 3.0 percent, respectively) but diverged in the second pandemic year, with Trump districts’ enrollments growing for a net decline of 2.0 percent while enrollments continued to decline in Biden districts for a net loss of 3.8 percent.

The political sentiments established long before instructional offerings in 2020–21 reflect much of the differences across instructional offerings.<sup>18</sup> These stark differences by voting history suggest that districts’ COVID caution or assertiveness had more to do with communities’ shared ideological priors than COVID case rates in the county.

To examine COVID culture, I looked at three different variables: masking preferences, masking policies, and vaccine hesitancy. Across all three variables, which have durable associations despite being measured more than two years apart, more COVID-cautious districts saw larger enrollment declines. I grouped districts into three categories—the highest, middle, and lowest—along three measures to gauge communities’ caution or assertiveness. The first was mask usage, not in schools but community-wide, as measured by a *New York Times* survey collected in July 2020.<sup>19</sup> The second was masking in schools, measured by Return to Learn Tracker data on mask requirements across the 2021–22 school year.<sup>20</sup> A third measure, gathered by the US Census Bureau’s Household Pulse Survey in March 2021, gauges vaccine hesitancy of the general public.<sup>21</sup>

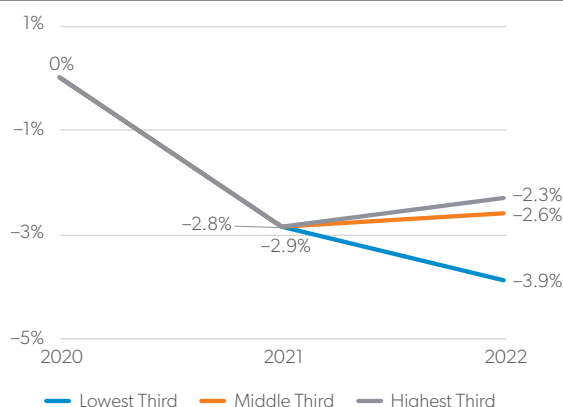


**Figure 7. Enrollment Changes by Summer 2020 Community Masking, 2019–20 to 2021–22**



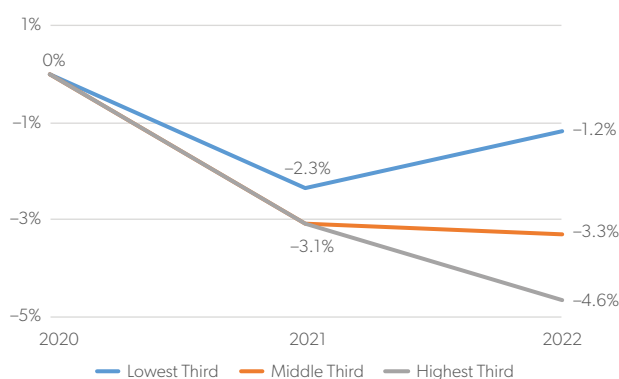
Source: Return to Learn Tracker, Enrollment Tracker: 2020–2022, <https://www.returntolearntracker.net/2020-22-enrollment-changes>.

**Figure 8. Enrollment Changes by Vaccine Hesitancy, March 2021**



Source: Return to Learn Tracker, Enrollment Tracker: 2020–2022, <https://www.returntolearntracker.net/2020-22-enrollment-changes>.

**Figure 9. Enrollment Changes by 2021–22 School District Masking Requirements, 2019–20 to 2021–22**



Source: Return to Learn Tracker, Enrollment Tracker: 2020–2022, <https://www.returntolearntracker.net/2020-22-enrollment-changes>.

Figure 7 shows enrollment differences based on community masking early in the pandemic, before either enrollments were recorded. Across these three categories, enrollment declines were relatively similar in the first pandemic year (differing by 0.3 percent) but diverged in the second. In the second pandemic year, enrollments in districts with the highest community mask usage declined by 1.4 percent, for a two-year net decline of 4.3 percent. In districts with the least community masking, enrollments rebounded by half a percentage for a two-year net decline of 2.1 percent.<sup>22</sup>

Vaccine hesitancy measured between the two enrollment tallies tells a similar story, where COVID-assertive districts with more vaccine hesitancy saw smaller enrollment declines. Figure 8 shows that enrollment declined for all three groups by 2.8 percent in the first pandemic school year. Districts with the lowest levels of vaccine hesitancy saw further declines in the second pandemic school year, leading to net enrollment declines of 3.9 percent. Districts with the highest levels of vaccine hesitancy rebounded by about 0.5 percent, and those in the middle group rebounded by 0.2 percent.

Data on schools' masking requirements, gathered throughout the 2021–22 school year and after both enrollment periods, show similar, if even more pronounced, enrollment differences. Figure 9 shows that districts with the longest-running mask requirements saw the largest enrollment declines, with a net change of –4.6 percent—roughly one in 23 students. Districts that never instituted mask mandates in 2021–22 lost somewhat fewer students in the first pandemic year (2.3 percent vs. 3.1 percent) and rebounded in the second year for a net loss of 1.2 percent of students. Districts in the middle group saw essentially flat enrollment in the second pandemic year, for a two-year net enrollment decline of 3.3 percent—one in 30 students.

Unsurprisingly, masking and vaccine hesitancy measures had moderately strong correlations.<sup>23</sup> However, their associations are remarkable because of the time and events—that is, the majority of the pandemic—that separate them. The community masking was measured before enrollments for the first pandemic school year were tallied and before any in-person pandemic instruction occurred. The

**Table 1. Median Pre-Pandemic Nonlocal Annual Revenue Associated with Enrollment Declines, by Category of 2020–21 Instructional Offerings**

2020 Student Population	Most Remote	Middle	Most In Person
25,000+	–\$26,600,000	–\$9,210,000	–\$6,370,000
15,001–25,000	–\$7,250,000	–\$2,250,000	–\$980,000
10,001–15,000	–\$3,500,000	–\$1,890,000	–\$770,000
5,001–10,000	–\$2,290,000	–\$1,340,000	–\$460,000
2,501–5,000	–\$1,050,000	–\$400,000	–\$340,000
1,000–2,500	–\$640,000	–\$310,000	–\$250,000

Source: National Center for Education Statistics, Common Core of Data, Local Education Agency (School District) Finance Survey (F-33) Data, v.1a—Provisional, <https://nces.ed.gov/ccd/files.asp#Fiscal:1,LevelId:5,SchoolYearId:33>; Return to Learn Tracker, Enrollment Tracker: 2020–2022, <https://www.returntolearnteacher.net/2020-22-enrollment-changes>; and Return to Learn Tracker, Change in Instructional Status, [https://www.returntolearnteacher.net/instructional\\_status](https://www.returntolearnteacher.net/instructional_status).

vaccine hesitancy data were measured in March 2021 as COVID cases trended downward for the school year and in-person instruction increased dramatically. The second pandemic school year enrollments coalesced as the unexpected late summer 2021 delta surge arose and before masking requirements extended in some districts over another school year when the omicron surge came and went.

All these measures have weak correlations with cumulative local COVID case rates during the 2020–21 school year but have stable relationships with each other and enrollments in the second pandemic school year. The total in-person learning in 2020–21 was moderately negatively correlated with masking; that is, in-person instruction was higher where masking was lower, both in communities before that school year began and in the same school districts the following year.<sup>24</sup>

The overlap between these measures and their timing support the idea that school instructional offerings in 2020–21 instrumentally shaped enrollments that diverged the next year *and* that all these factors were linked to COVID cultural responses that persisted across the pandemic. School operational decisions in fall 2021 demonstrated and reinforced localities’ COVID caution or assertiveness. Enrollment changes are among the most concrete consequences of that COVID caution, and potential long-term revenue consequences for districts are striking.

## Potential Revenue Fallout

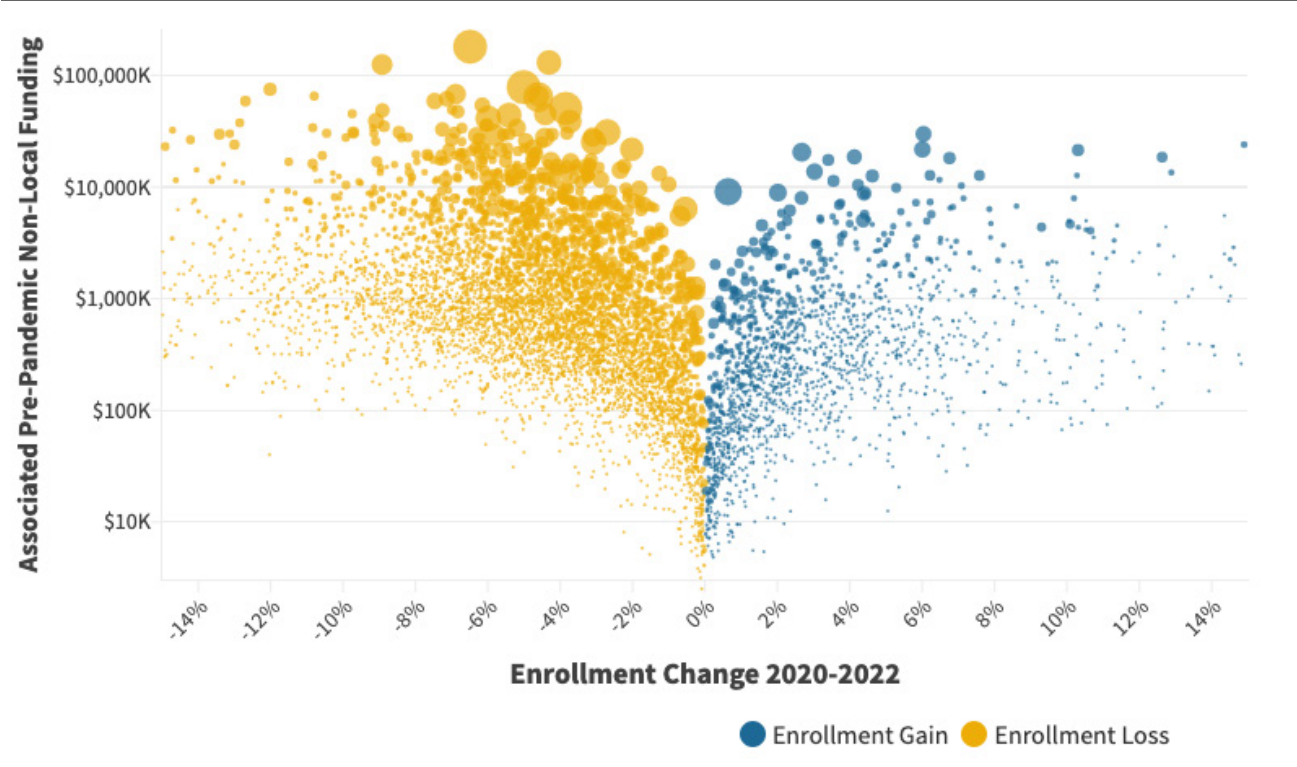
Persistent enrollment declines will lead to public school revenue losses. In this section, I approximate what revenue impacts would be if enrollments stabilized at 2021–22 levels. These projections are based on districts’ pre-pandemic per-pupil state and federal revenues, which generally flow on a per-pupil basis.<sup>25</sup> Although imperfect, these projections provide a sense of how large the potential revenue implications could be over the long term.

Given that total revenue impacts will be greater in larger districts, I describe median revenue projections by categories of district size. Table 1 shows the most-remote districts have much larger potential revenue impacts relative to districts that offered more in-person instruction. In each category, median revenues associated with enrollment losses for the most-remote districts were larger, often many times larger, than were districts offering midrange or the most in-person instruction.

Figure 10 displays a more complete picture of these potential impacts; it shows pre-pandemic nonlocal revenues by percentage enrollment changes. (Districts in yellow on the left have potential declines, and those in blue on the right have potential increases.) The vast majority of districts, 82 percent in Table 2, had enrollment declines and face negative potential revenue



**Figure 10. Pre-Pandemic Nonlocal Funding Associated with Pandemic Enrollment Changes**



Source: Return to Learn Tracker, Enrollment Tracker: 2020–2022, <https://www.returntolearnteacher.net/2020-22-enrollment-changes>; and author’s calculations using National Center for Education Statistics, Common Core of Data, Local Education Agency (School District) Finance Survey (F-33) Data, v.1a—Provisional, <https://nces.ed.gov/ccd/files.asp#Fiscal:1,LevelId:5,SchoolYearId:33>.

impacts. I have already shown those losses were higher in percentage terms for the most-remote districts, but Table 2 also shows the share of losses by categories of instructional offerings, in which just one in 10 of the most-remote districts escaped potential losses compared to three in 10 of most-in-person districts.

The mass of yellow districts in Figure 10 face higher revenue shifts than the mass of blue districts on the right—reflecting the pattern seen in Table 1. Those differences are more pronounced than they seem because Figure 10 displays funding in thousands of dollars on a logarithmic rather than linear scale. Each horizontal line marks revenue 10 times higher than the line below it, which means the top blue shaded area represents revenue changes between \$10 and \$100 million.

As seen in Table 2, more than nine in 10 of the districts in this range have

revenue declines, and none of those with potential revenue increases are in the upper half of this range. The two largest districts, New York City and Los Angeles Unified, are not displayed in this table because their potential declines (\$1.1 and \$0.68 billion, respectively) dwarf all other districts.

**Table 2. Share of Districts with Enrollment Decreases and Increases, by Category of In-Person Instruction in the 2020–21 School Year**

	Enrollment Changes 2020–22	
	Decrease	Increase
All Districts	82%	18%
Most Remote	90%	10%
Middle	77%	23%
Most In Person	70%	30%

Source: Return to Learn Tracker, Enrollment Tracker: 2020–2022, <https://www.returntolearnteacher.net/2020-22-enrollment-changes>.

These revenue effects are dire and (we can hope) may not hold. In the short term, we are already seeing evidence of them. New York City announced a \$215 million budget decrease for the 2022–23 school year, well below the nearly \$1 billion potential decrease in state and federal funding associated with the 2021–22 enrollments—but still an enormous amount.<sup>26</sup> Other districts have discussed or taken steps to close schools and cut programs because of enrollment declines.<sup>27</sup> Operational impacts could include “hiring freezes, school closures, cuts to vital services and programs including Special Education programs and English as a Second Language programs, teacher and staff layoffs, classroom consolidations and more.”<sup>28</sup> Simply put, if enrollments hold, most school districts’ nonlocal revenues will decline substantially, particularly in the most-remote districts, and cause painful operational changes.

## Conclusion

The COVID-19 pandemic—the source of the largest disruption to public schools in American history—caused unprecedented enrollment changes, but the pandemic alone does not explain them. These numbers represent life-altering decisions for millions of students and their families that stemmed from not only the pandemic but also schools’ and communities’ responses to it. These changes shed light on two pressing questions COVID leaves many schools still grappling with: Why did public school enrollment fall? Will students return?

The most basic answer to why enrollment fell is that families fled from public schools in response to the pandemic. But the changes across both years are due to school and community responses, and both are worth exploring. The timing of enrollment declines demonstrates how schools’ operational decisions affected enrollments. In the first pandemic school year, millions of students either left public schools or did not enroll as expected because of uncertainty. Surely some parents did not (re)enroll their students due to uncertainty about safety of returning, while others sought more certainty about the kind of schooling their students would receive.

In the second pandemic school year, the same uncertainties did not apply. Families’ observations, or experiences, over the first tumultuous school year showed

parents what to expect. Those seeking a faster return to something like pre-pandemic schooling had learned whether their district was likely to deliver on that score. However, parents concerned with the safety of returning had less concern, as remote options were widely available for students. Enrollment decisions did not hinge on safety concerns, which gave most parents choice, as much as it did on concerns about returning to normalcy, which were limited by COVID-cautious districts. If enrollments hinged on both concerns equally, enrollment patterns would have been relatively similar across districts with different in-person learning options in 2020–21. They were not.

Schools’ operational responses were instrumental in enrollment changes; those responses stemmed from localities’ COVID culture. Excessive COVID caution had consequences for students and schools, including learning loss, enrollment declines, and projected revenue loss. The most COVID-assertive communities, by contrast, are now seeing fewer negative consequences. Whether we are now at the beginning of endemic COVID or just a lull in an extended pandemic, those consequences deserve a clear-eyed accounting. With the endgame of the pandemic still in play, appropriate and balanced COVID responses may still have consequences.

With those consequences in mind, a key question for many districts is, Will they return? The same question was asked the previous year, but moving forward, the question carries less weight in COVID-assertive districts than it does in many COVID-cautious districts, where enrollments fell and fell again.

These districts have real hope of an enrollment rebound next year. The rebound in COVID-assertive districts’ enrollment could be seen next year in districts that were COVID cautious. With few exceptions, all school districts offered in-person instruction for all of 2021–22. While that fact provides some vindication for COVID-assertive districts’ decisions in the prior year, it could be enough for COVID-cautious districts to see similar rebounds in the 2022–23 school year and avoid the brunt of potential long-term revenue losses.

However, the logic may not be that simple. After all, millions of students have become accustomed to other schooling options—be they learning pods, hybrid schools, private schools, or homeschooling—and after one or two years, a significant portion may remain there. Either or both factors could make potential long-term

enrollment and revenue decreases a reality. Even if a return to normal might draw these students back, future enrollments might hinge on what constitutes “normal.”

COVID-assertive districts that saw enrollment rebound this year also spent less of the year under mask mandates. The first pandemic school year was closer to pre-pandemic normal in these districts, and the second was even more so. The converse also holds. COVID-cautious districts spent more time remote in 2020–21 and required masks longer than the next year. If extended mask requirements reflect greater deviations from “normal” pre-pandemic schooling, that could keep enrollments down.

Only time will tell how public school enrollment will settle post-pandemic. As of this writing, it’s unclear whether the 2022–23 school year will be most aptly described as post-pandemic or the third pandemic school year. From the evidence available, school districts that can return to normal operations sooner will also return to pre-pandemic enrollments sooner. Whether they do—and whether their communities’ COVID cultures adjust to allow them to—could significantly affect their own districts and the landscape of American schools.

# Appendix

This appendix describes pandemic enrollment changes by several additional factors not included in the body of the report. Specifically, it examines enrollment differences by grade levels and categories of instructional offerings within grade levels and across districts by size and urbanicity. Enrollment changes by additional characteristics are available at the Return to Learn Tracker.<sup>29</sup>

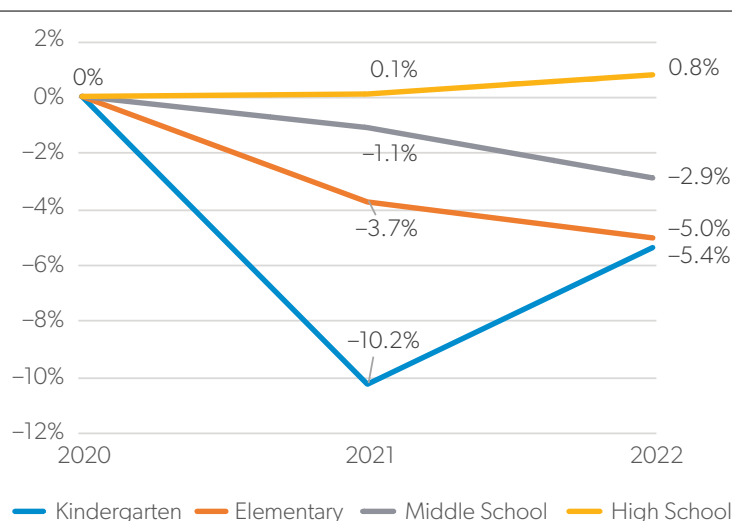
## Enrollment by Grade Level

Enrollment changes differ dramatically across grade levels. However, within each grade level, differences by in-person learning opportunities remain consistent (Figure A1). On average, pandemic enrollment declines tended to be larger in elementary grades, kindergarten especially. Larger pandemic enrollment declines in lower grades have some intuitive and sensible potential explanations. Faced with either pandemic risks of in-person schooling or an aversion to remote instruction, parents of kindergarten students may sensibly want to avoid online kindergarten instruction, and redshirting—or waiting an extra year to enroll their students in school—may seem like a sensible alternative.

For elementary grades, the prospect of homeschooling students may be relatively appealing, again given the difficulty of online instruction for younger students and, relative to high school subjects, a curriculum that parents may feel relatively more confident in providing to their own students in younger grades. The calculus for students in older grades may well be different, as many parents may view remote instruction as more appropriate for older students and homeschooling in more advanced curricular content more daunting. Private school options might also be more available in elementary grades than in high schools.

Across all grade levels, kindergarten not only showed the most dramatic enrollment changes in the first pandemic year but also had the most dramatic rebound in the 2021–22 school year and the most even rebound across groups (Figure A2). For kindergarten

**Figure A1. Enrollment Changes by Grade Level, 2019–20 to 2021–22**



Source: Return to Learn Tracker, Enrollment Tracker: 2020–2022, <https://www.returntolearnteacher.net/2020-22-enrollment-changes>.

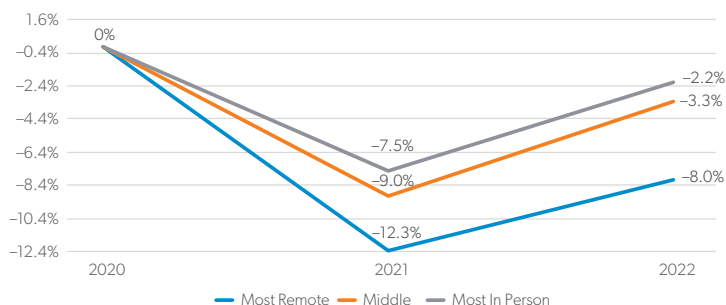
enrollments, declines in the first pandemic school year drove the two-year gaps between the most- and least-remote districts. Still, the rebound between the first and second pandemic school years was over 25 percent larger in the middle and most-in-person districts.

Elementary, middle, and high school enrollment declines demonstrate the disproportionate divergence after the instructional offerings in the first pandemic school year. Elementary enrollments fell between 3.5 and 4.1 percent for all three groups by instructional status but rebounded slightly for the most-in-person districts, declined slightly for the middle group of districts, and declined substantially for the most-remote districts. On net, the most-in-person districts lost roughly one in 30 elementary students, while the most-remote districts lost about one in 16.

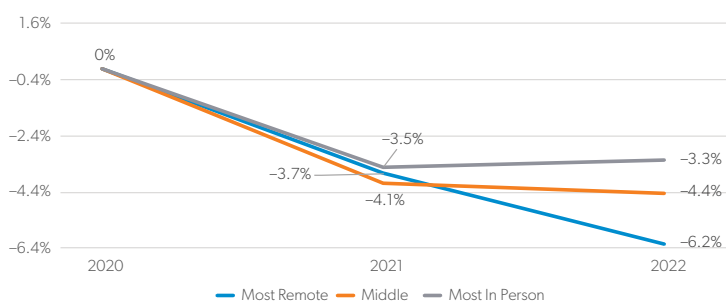
Middle school enrollments were stable in the most-in-person districts across both years. The middle group of districts in terms of in-person learning declined by 0.9 percent in the first year and again by 1.1 percent in the second pandemic year. For the most-remote districts, declines in the first pandemic year were still larger, at 1.7 percent; were 67 percent larger in the second pandemic; and resulted in a 4.6 percent net decline, a loss of about one in every 22 students.

**Figure A2. Enrollment Changes by Grade Level and 2020–21 Instructional Offerings, 2019–20 to 2021–22**

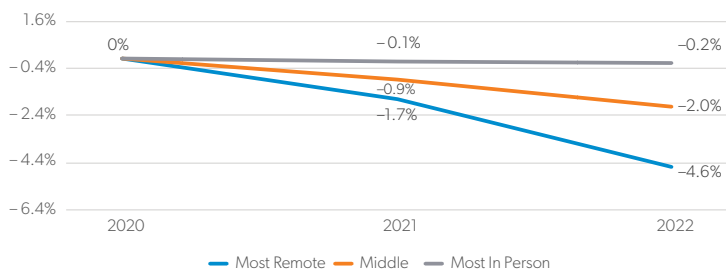
**Panel A. Kindergarten Enrollment, 2019–20 to 2021–22**



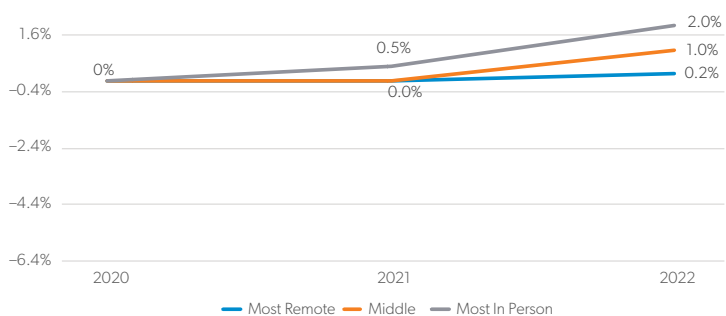
**Panel B. Elementary Enrollment, 2019–20 to 2021–22**



**Panel C. Middle School Enrollment, 2019–20 to 2021–22**



**Panel D. High School Enrollment, 2019–20 to 2021–22**



Source: Return to Learn Tracker, Enrollment Tracker: 2020–2022, <https://www.returntolearnteacher.net/2020-22-enrollment-changes>.

High school enrollments increased overall over the two pandemic school years—primarily driven by growth in the ninth grade—but again diverged more in the second pandemic year. In the second year, high school enrollments increased slightly, by 0.2 percent for the most-remote districts, 1 percent for the middle group, and 1.5 percent for the most-in-person districts.

Over two years, overall and across all grade levels, the districts that offered more in-person instruction saw less enrollment declines. Except for kindergarten, these differences primarily developed after the first full year of pandemic instruction.

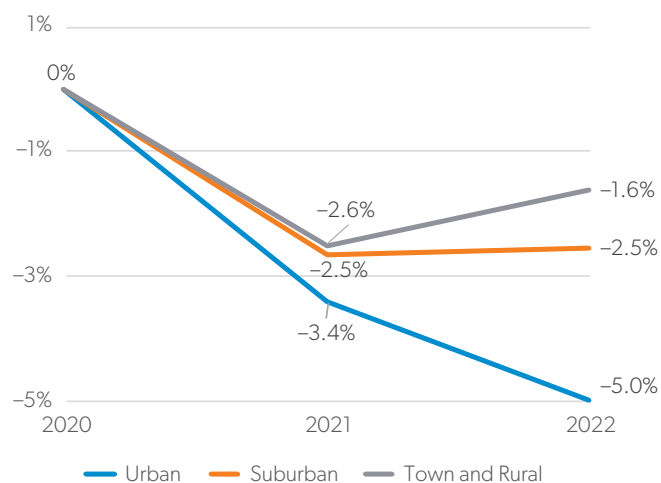
**Enrollment Changes by District Size and Urbanicity**

Large and urban districts receive a disproportionate amount of attention in media reports, and the pandemic was no exception. As seen in Figure A3, larger and more urban districts, respectively, were less likely to provide in-person instruction in the 2020–21 school year relative to their smaller and less urban peer districts. In keeping with the patterns demonstrated in this report, larger and more urban districts also showed distinct patterns of enrollment over the pandemic.

Urban districts, which make up a relatively small share of districts but a much larger share of students, had disproportionately large enrollment declines. The sharp differences in enrollments are due in part to urban districts being a smaller group than any other comparison in this report (fewer than 700 districts compared to four times as many districts included in the most-remote category of instructional offerings).

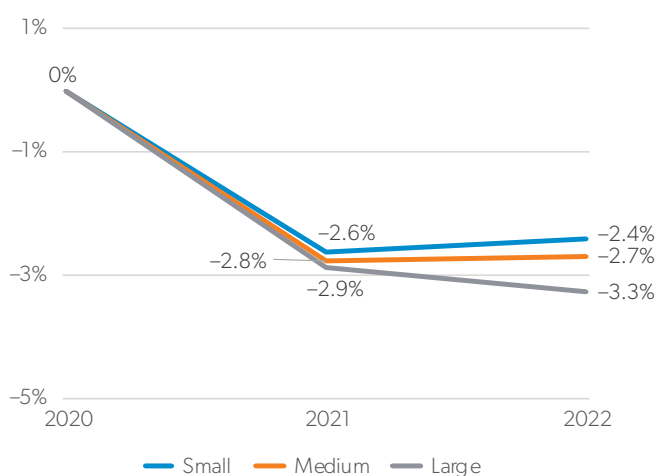
Combined town and rural districts and suburban districts lost about 2.5 percent of students in the first pandemic school year, while urban districts lost about 3.4 percent. In the second pandemic year, town and rural districts' enrollment bounced back nearly a full percentage point for a net decline

**Figure A3. Enrollment Changes by Urbanicity, 2019–20 to 2021–22**



Source: Return to Learn Tracker, Enrollment Tracker: 2020–2022, <https://www.returntolearntracker.net/2020-22-enrollment-changes>.

**Figure A4. Enrollment Changes by District Size, 2019–20 to 2021–22**



Source: Return to Learn Tracker, Enrollment Tracker: 2020–2022, <https://www.returntolearntracker.net/2020-22-enrollment-changes>.

of 1.6 percent, while enrollment in suburban districts remained at -2.5 percent. Urban districts declined a further 1.6 percent for a total loss of 5 percent. This translates to a loss of one in 63 students in town and rural districts, compared to a loss of one in 20 students in urban districts.

Enrollment differences by district size were more muted (Figure A4). While first-year declines were similar (within 0.3 percent), small districts (three to five schools) saw a small enrollment rebound in the second pandemic school year, and medium-sized districts (six to 11 schools) saw flat enrollment. Larger districts (12 or more schools) saw further declines.



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## About the Author

**Nat Malkus** is a senior fellow and deputy director of education policy studies at the American Enterprise Institute.

## Notes

1. Kansas and Rhode Island provide totals only for district prekindergarten through 12th grade. For all other states, enrollment changes include students in kindergarten through 12th grade, but in these two states, total student counts include pre-kindergarten students across all years. A small share of district enrollments, and a slightly larger percentage of grade-level enrollments within districts, are excluded from these analyses because accurate counts across years could not be calculated due to suppression rules, which varied across states. With these exclusions, the Return to Learn (R2L) Tracker enrollment data are by far the most comprehensive data available and will be until the National Center for Education Statistics (NCES) releases its official tally in fall 2022.

2. For instance, in states that provided preliminary 45-day enrollment counts but whose final, 100-day enrollment counts were unavailable, the 45-day counts were used across all years.

3. National Center for Education Statistics, Common Core of Data, Local Education Agency (School District) Finance Survey (F-33) Data, v.1a—Provisional, <https://nces.ed.gov/ccd/files.asp#Fiscal:1,LevelId:5,SchoolYearId:33>.

4. Before the pandemic, most state and federal revenues, which made up roughly 57 percent of district revenues in the 2018–19 school year, are allocated on a per-pupil basis. That per-pupil basis differs by revenue source and in several instances is based on subpopulations of low-income students. Without universal data on enrollment difference by student poverty, the revenue estimates used in this report include pre-pandemic per-pupil state and local revenues associated with enrollment declines.

5. Enrollment data for the 2020–21 school year gathered by the NCES have reported a 3 percent drop in enrollment for this year, but those enrollment numbers include prekindergarten enrollments that are not included in the R2L data. Enrollment declines were greater in the earliest grades, which, coupled with the exclusion of Tennessee and Kentucky school districts, explains the bulk of this difference in enrollment declines.

6. US Department of Education, Institute of Education Sciences, National Center for Education Statistics, “Table 203.20. Enrollment in Public Elementary and Secondary Schools, by Region, State, and Jurisdiction: Selected Years, Fall 1990 Through Fall 2030,” [https://nces.ed.gov/programs/digest/d21/tables/dt21\\_203.20.asp](https://nces.ed.gov/programs/digest/d21/tables/dt21_203.20.asp).

7. Enrollment was within  $\pm 1.5$  percent in 58 percent of districts (weighted by students enrollment) and within  $\pm 3$  percent for 85 percent of districts.

8. About 43 percent of districts in the second pandemic school year have  $\pm 1.5$  percent changes, compared to 58 percent pre-pandemic. Further, 29 percent had gains or losses of more than 3 percent in the second pandemic year, about twice the pre-pandemic share.

9. Nat Malkus, “Authority and Responsibility: District Leader Responses to School Reopening Plans,” American Enterprise Institute, August 12, 2020, <https://www.aei.org/research-products/report/authority-and-responsibility-district-leader-responses-to-school-reopening-plans>.

10. Malkus, “Authority and Responsibility.”

11. Malkus, “Authority and Responsibility.”

12. R2L's 8,600 districts encompass roughly 89 percent of the traditional public school students and are described and displayed at Return to Learn Tracker, Change in Instructional Status, [https://www.returntolearntracker.net/instructional\\_status](https://www.returntolearntracker.net/instructional_status).

13. Li-Kai Chen et al., “Teacher Survey: Learning Loss Is Global—and Significant,” McKinsey & Company, March 1, 2021, <https://www.mckinsey.com/industries/education/our-insights/teacher-survey-learning-loss-is-global-and-significant>.

14. Harvard University, Center for Education Policy Research, “New Study Highlights Impact of Remote Learning and Offers Insights for Targeting Recovery Efforts,” March 5, 2022, <https://cepr.harvard.edu/news/new-study-highlights-impact-remote-learning-and-offers-insights-targeting-recovery-efforts>.

15. Percentages in Figures 4–A4 show enrollment changes as a percentage of 2019–20 enrollments.
16. The student-weighted district correlation between the scale of in-person instruction and COVID case rates across the 2020–21 school year is a low 0.136.
17. Based on the summative scale of in-person instruction that averages total weeks of in-person instruction, where fully in-person weeks are scored as one, hybrid weeks are scored as 0.5, remote weeks are scored as zero, Donald Trump districts’ average student-weighted scale was 0.67, and Joe Biden districts’ average was 0.44, yielding a gap of 85 percent of a standard deviation.
18. While the actual November 2020 vote occurred during the first pandemic school year, those votes reflected stable political trends that were well established before the school year began.
19. Survey data were collected by the survey firm Dynata at the request of the *New York Times*.
20. Masking during the 2021–22 school year did not break into even groups. Enough districts had no mask mandates for the entire year to make up the entire lowest category, which represented 2020 enrollments of over 14 million students. The middle masking group represented just over 1,700 districts and nearly 10 million students, and the highest masking group included over 2,651 districts with 18 million students.
21. Survey data were collected by the survey firm Dynata at the request of the *New York Times*. I divided districts into three categories by the percentage of people who responded “always” to the question “How often do you wear a mask in public when you expect to be within six feet of another person?”
22. Mask usage categories were divided by student-weighted percentiles. The lowest community masking category in summer 2020 included 6,685 districts, the middle category included 2,546 districts, and the highest included 2,506 districts. Each category included schools with more than 14 million students enrolled in the 2019–20 school year. Percentages for the same categories when restricted to the R2L instructional offerings and mask requirement sample were similar to the full sample.
23. Community masking in summer 2020 and school district masking in 2021–22 were correlated at 0.57. Vaccine hesitancy was negatively correlated with both community masking ( $r = -0.62$ ) and school district masking in 2021–22 ( $r = -0.51$ ).
24. The in-person summative measure had a correlation of  $-0.048$  with summer 2020 community masking and a correlation of  $-0.57$  for average weeks of district mask requirements during the 2021–22 school year.
25. These projections do subtract charter school pass-through payments from local school district revenue totals from the F-33 data file from the Common Core of Data at NCES, which can otherwise conflate charter and local school district funding totals. Several factors are not accounted for in these projections. The projections cannot correct for enrollment differences by student type, which have not been provided for all states. Nor do they include local revenues, which in many districts do not flow per pupil, and thus they may significantly understate some revenue impacts. These figures are not adjusted for inflation and are presented in 2019 dollars; thus, they may understate impacts by nontrivial amounts. They also do not account for a wide range of hold-harmless provisions that states and districts have put in place to minimize the revenue changes associated with rapid enrollment decreases. See National Center for Education Statistics, Common Core of Data, Local Education Agency (School District) Finance Survey (F-33) Data, v.1a—Provisional.
26. Hurubie Meko, “N.Y.C. Schools Are Forced to Cut Hundreds of Teachers as Funding Drops,” *New York Times*, June 28, 2022, <https://www.nytimes.com/2022/06/28/nyregion/nyc-schools-budget-cuts-teachers.html>.
27. Michael Sainato, “We’re Already Stretched Thin’: NYC Teachers Criticize Massive School Budget Cuts,” Real News Network, July 6, 2022, <https://therealnews.com/were-already-stretched-thin-nyc-teachers-criticize-massive-school-budget-cuts>.
28. Renae Cassimeda, “School Districts Slash Spending Across the US,” World Socialist Web Site, May 18, 2022, <https://www.wsws.org/en/articles/2022/05/19/wwdf-m19.html>.
29. Return to Learn Tracker, Enrollment Tracker: 2020–2022, <https://www.returntolearnteacher.net/2020-22-enrollment-changes>.

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