



RESEARCH BRIEF

District Approaches to Instruction in 2020–21: Differences in Instructional Modes and Instruction Time Across Contexts

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In spring 2020, the COVID-19 pandemic led schools across the country to close their doors and transition to distance learning. One year later—in spring 2021—districts continued to adapt to the persistent and evolving challenges of schooling during the pandemic. With variations in state guidelines and community needs, the importance of understanding the education landscape across the United States is greater than ever.

The American Institutes for Research (AIR) launched two national surveys to better understand how school districts across the country have responded to the pandemic. The first [National Survey of Public Education's Response to COVID-19](#) was sent to leaders in approximately 2,500 school districts in May 2020 and received 753 responses.¹ Results from the first survey appear in a collection of research briefs published between July 2020 and April 2021, which are available on the [project page](#). The second survey was sent to the same sample of 2,500 leaders, as well as an additional 10,000 districts that were not included in the original survey sample. Administration took place in April 2021, with 565 districts responding from 46 states.²

While the survey response rate is low, observed characteristics of the responding districts reflect average characteristics of the national district sample. In addition, our survey results on the prevalence of in-person instruction are consistent

About This Brief

- This brief examines public school district approaches to instruction during the 2020–21 school year.
- District approaches to instruction (i.e., in-person, remote, or hybrid instruction) varied greatly across contexts, with stark contrasts in the prevalence of in-person instruction by geographic region as well as district locale, size, racial composition, concentration of English learners (ELs), and historic achievement.
- Expectations for instruction time also differed across contexts, with districts that provided more in-person instruction expecting more instructional time per day.
- These findings highlight disparities in educational opportunities that may have lasting effects on student outcomes, including academic achievement and social-emotional well-being. This suggests a need for supports that can minimize the effects of these disparities as school districts prepare to transition into the post-COVID era.

with findings from the Institute of Education Sciences’ (2021) [School Survey Dashboard](#), providing reassurance that our survey sample is a reasonable representation of districts across the country.

In this brief, we explore district leaders’ survey responses regarding their schools’ instructional approaches—specifically, instructional mode and instruction time—during the 2020–21 school year. As school districts prepare to embark on what is certain to be another transitional journey in 2021–22, we hope this brief will inform the perspectives of researchers, administrators, and policymakers and contribute to the growing documentation of public education’s response to the COVID-19 pandemic.

Introduction

The 2020–21 school year was a turbulent time for public school districts and their stakeholders. Concerns about the health and safety of students, teachers, and school staff clashed with concerns about student learning and social-emotional well-being. Perhaps one of the most defining features of the 2020–21 school year was the diversity of school district approaches to instruction across contexts. Rickles et al. (2020) documented these differences at the start of the pandemic. We now return a year later to take another look at differences in school district responses to the pandemic across contexts.

Other researchers have also begun to explore district approaches to instruction in 2020–21. In December 2020, the McKinsey Institute (Dorn et al., 2020) described the instructional approaches of school districts as “a patchwork of modalities,” estimating that “about 60 percent of K–12 students started the 2020–21 school year fully remote. Another 20 percent started school with a hybrid model of remote and in-person classes, while the remaining 20 percent headed back full-time to in-person classrooms.” The authors highlighted differences in instructional approaches by district size and urbanicity, with students in urban areas and large districts the most likely to be learning remotely in fall 2020. “Even within the same district,” the authors noted, “Black and Hispanic students were more likely than white students to have started the school year remote,” due in part to differences in parental demand for in-person classes.

In May 2021, the RAND Corporation (Schwartz et al., 2021) published the results of its second American School District Panel survey, which echoed the McKinsey Institute’s findings on differences in urban and rural district approaches to instruction. The authors also highlighted that districts providing fully in-person instruction (which they noted were primarily rural) were less likely to shorten the school day and/or reduce instructional minutes than districts offering any remote instruction.

Some estimates released at the federal level add further detail regarding the education landscape during the COVID-19 pandemic. For example, the most recent Condition of Education report (National Center for Education Statistics, 2021) included results from the 2020 Household Pulse Survey, where 67% of parents/guardians indicated that their children’s classes had moved to a distance learning format using online resources in September 2020. In addition, the Institute of Education Sciences (2021) created the aforementioned [School Survey Dashboard](#) to document monthly survey results on topics such as instructional mode, student enrollment, student attendance, and teacher vaccinations in winter 2021.

The remainder of this brief highlights survey responses from 565 district leaders regarding their schools’ approaches to instructional modes and instruction time during the 2020–21 school year. We explore

these approaches by district characteristics, including geographic region, locale, size, poverty level, racial composition, concentration of English learners, and historic achievement.³

Instructional Modes in 2020–21

In fall 2020, just over half of districts provided primarily in-person instruction to younger students (51% for Grades K–5) while less than half provided primarily in-person instruction to older students (46% for Grades 6–8 and 43% for Grades 9–12). One third of districts that were not providing primarily in-person instruction at the start of the fall term reported transitioning to more in-person instruction by the end of the term, and an additional 20% reported that they had to change periodically between remote and in-person instruction during that time. Districts that provided primarily in-person instruction reported more stability in fall 2020, with over half reporting no change in instructional mode over time (see Figure 1).

The percentage of districts that provided primarily in-person instruction for all offered grades increased from 41% in fall 2020 to 54% in winter 2021. Despite this increase, only 18% of districts reported providing fully in-person instruction in winter 2021 (i.e., 100% of students received all of their instruction in person). Approximately 6% of districts reported providing fully remote instruction during this time (i.e., 100% of students received all of their instruction remotely). This means that most districts were providing neither fully remote nor fully in-person instruction in winter 2021 (see Figure 2). Two thirds of districts provided in-person instruction to younger students (68% for Grades K–2 and 66% for Grades 3–5), compared with 61% for Grades 6–8 and 55% for Grades 9–12.⁵ The remainder of this section takes a more detailed look at modes of instruction in winter 2021, including the factors used to determine who received in-person instruction and differences in instructional modes by district characteristics.

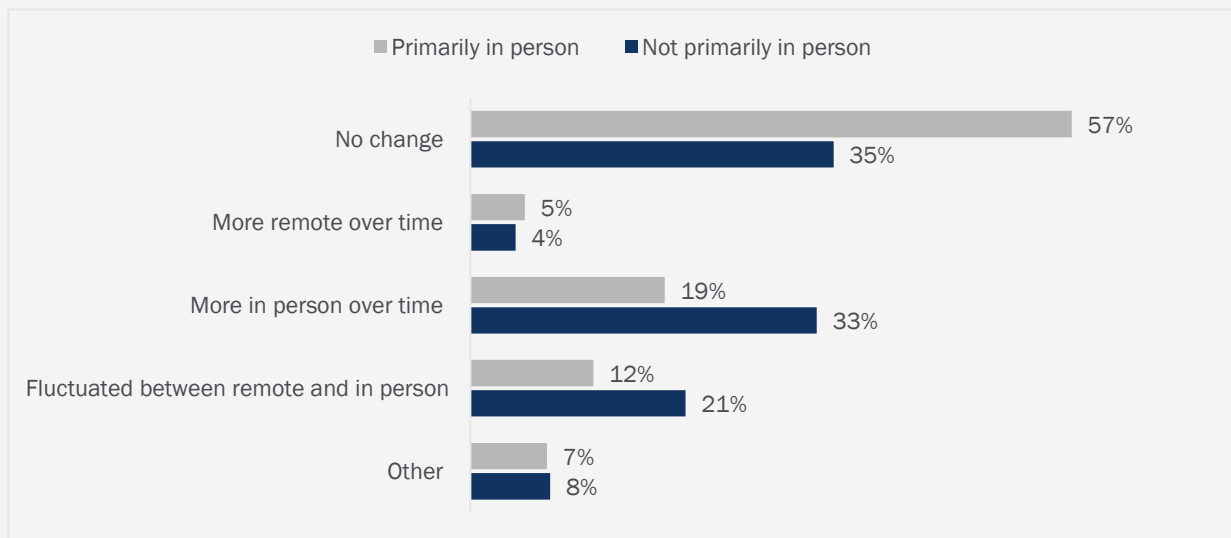
Classifying District Instruction

“Primarily in-person instruction” = more than 75% of students received all or most of their instruction in person.⁴ This includes fully in-person instruction as well as hybrid instruction where “most” instruction took place in person.

“Not primarily in-person instruction” = at least 25% of students received remote instruction. This includes fully remote instruction as well as hybrid instruction where “most” instruction took place remotely or instruction was equally divided between remote and in-person delivery.

Figure 1. Instructional Modes in Fall 2020

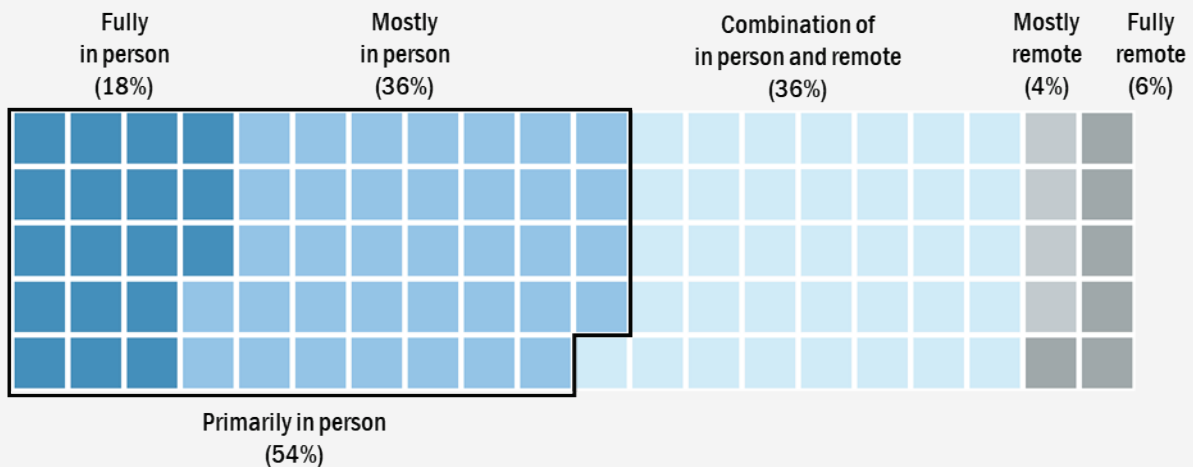
Percentage of districts that reported changes in instructional mode during the fall term



Sample sizes. Primarily in person = 211 districts, Not primarily in person = 335 districts.

Figure 2. Instructional Modes in Winter 2021

Percentage of districts providing each mode of instruction for all grades offered



Note. Each square represents 1% of districts.

Sample sizes. Fully in person = 90 districts, Mostly in person = 206 districts, Combination of in person and remote = 204 districts, Mostly remote = 20 districts, Fully remote = 42 districts.

Determining Who Received In-Person Instruction in Winter 2021

For the 76% of districts that provided neither fully remote nor fully in-person instruction in winter 2021, we asked district leaders to share how they determined who received in-person instruction. Most of these districts (82%) reported that families could choose to have their child attend school in person. About 20% of district leaders said they prioritized specific groups of students for in-person instruction. The five most prominent priority groups were as follows:⁶

1. Students with disabilities
2. Students identified as needing additional academic supports
3. Students identified as needing additional social-emotional supports
4. English learners
5. Students identified as chronically absent

Differences in Instructional Modes by District Characteristics

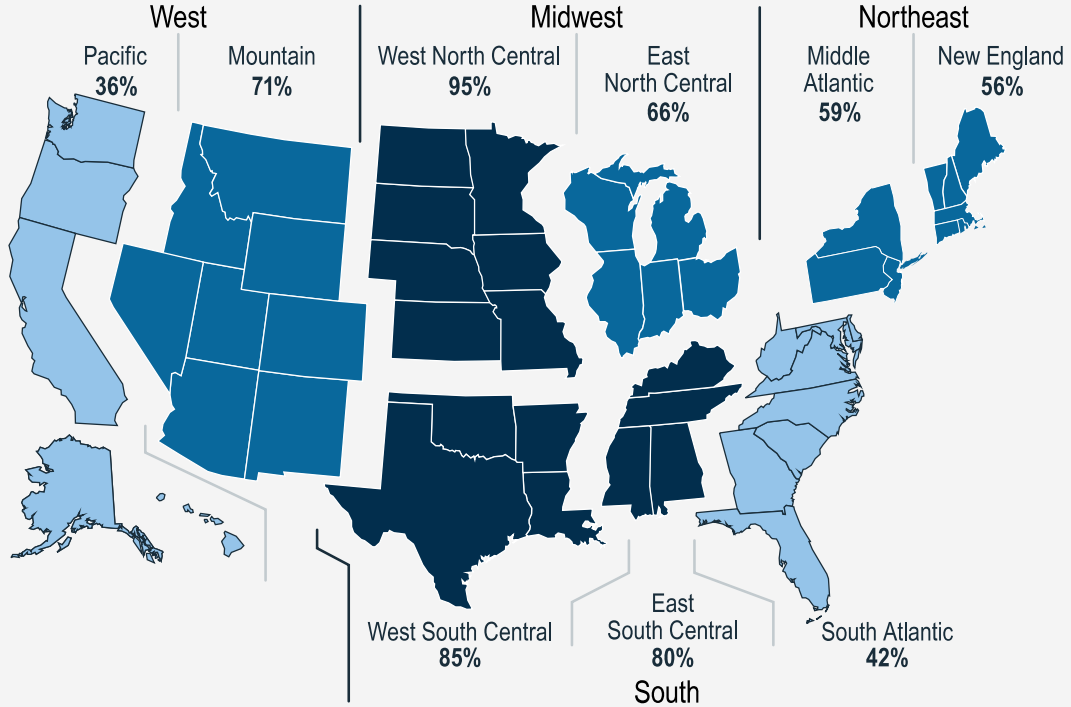
The prevalence of in-person instruction in winter 2021 varied greatly across district contexts. We found significant differences in instructional mode across the nine regions of the United States, highlighting the variation in state and regional guidelines across the country. For example, districts in central parts of the country were significantly more likely to provide primarily in-person instruction than districts in the Pacific and South Atlantic regions (see Figure 3).

We also identified significant differences in instructional mode by districts' locale, size, racial composition, concentration of English learners, and historic achievement (see Figure 4).⁷ These findings suggest that additional supports may be needed for urban districts, large districts, districts serving mostly students of color, districts with high concentrations of English learners, and historically low-achieving districts as they return to in-person instruction. These districts were less likely than their respective counterparts to implement in-person instruction during the pandemic, potentially making the shift back to in-person learning for the 2021–22 school year a much bigger transition for students, teachers, and school staff, compared with those that have been providing or receiving primarily in-person instruction over the past year.

Figure 3. Instructional Modes in Winter 2021 by Geographic Region

Percentage of districts that were providing primarily in-person instruction⁸

Grades K–2



Grades 3–5

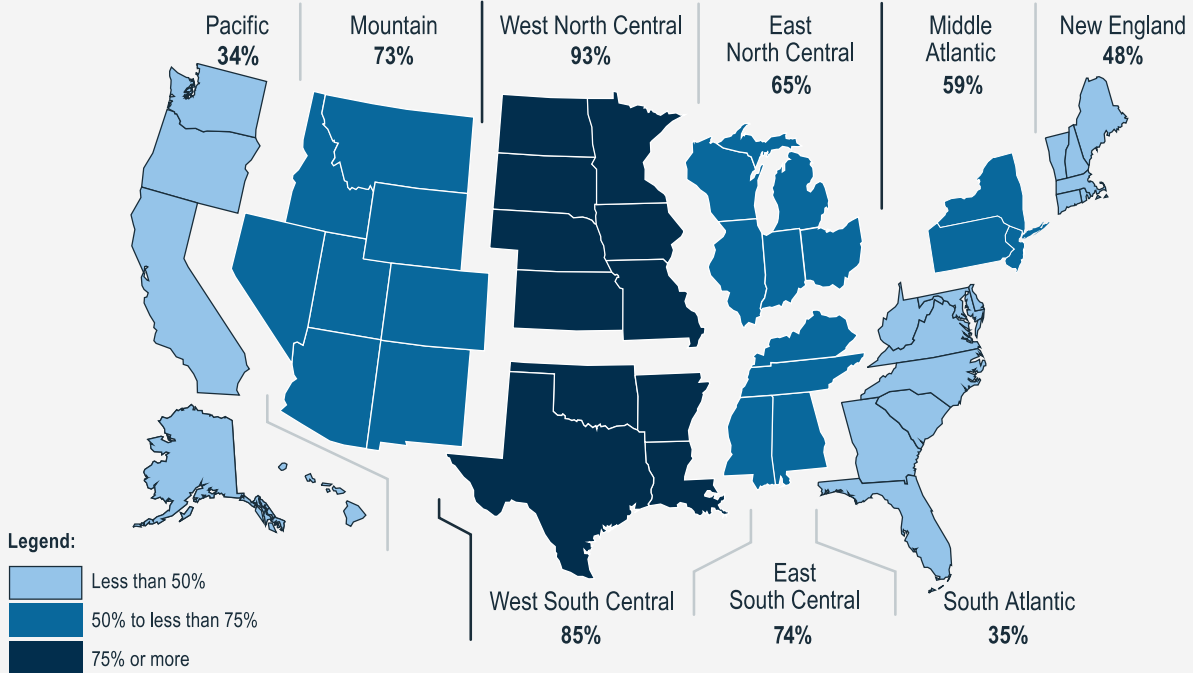
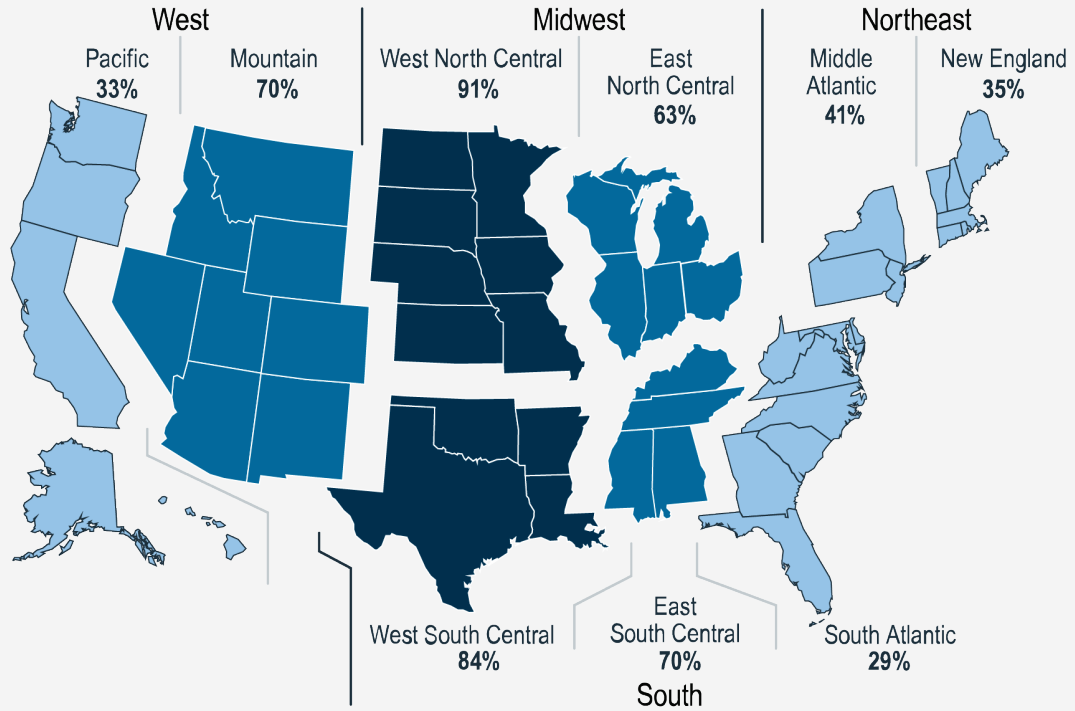


Figure 3. Instructional Modes in Winter 2021 by Geographic Region (continued)

Percentage of districts that were providing primarily in-person instruction⁹

Grades 6–8



Grades 9–12

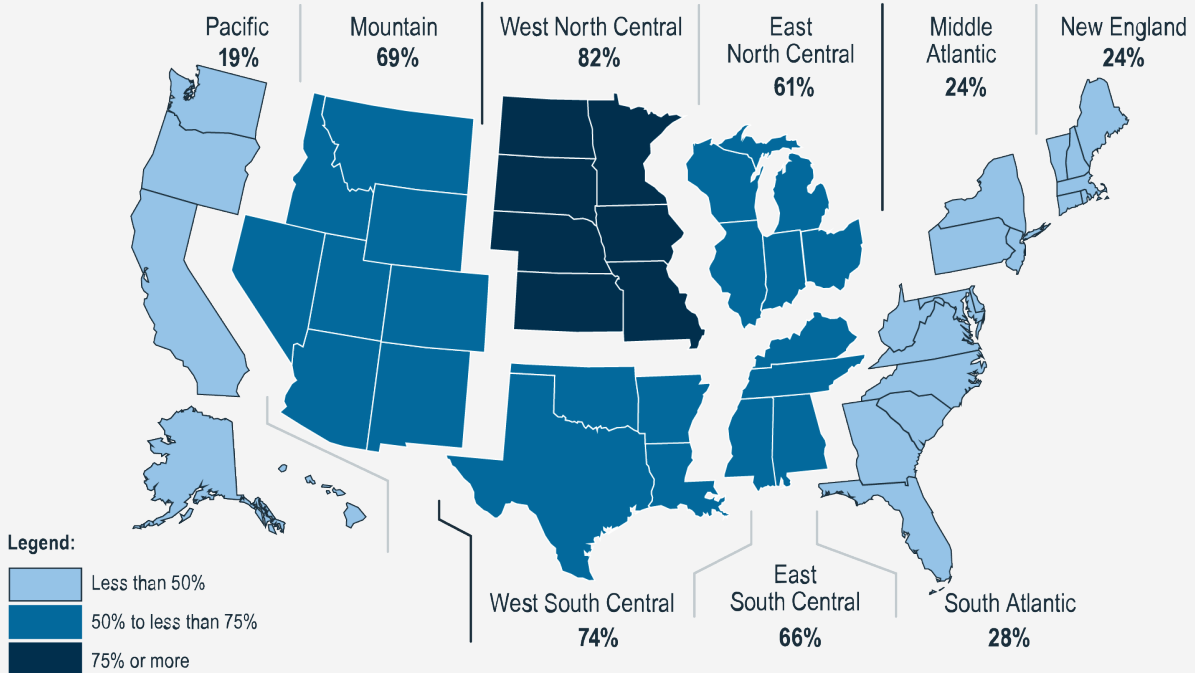
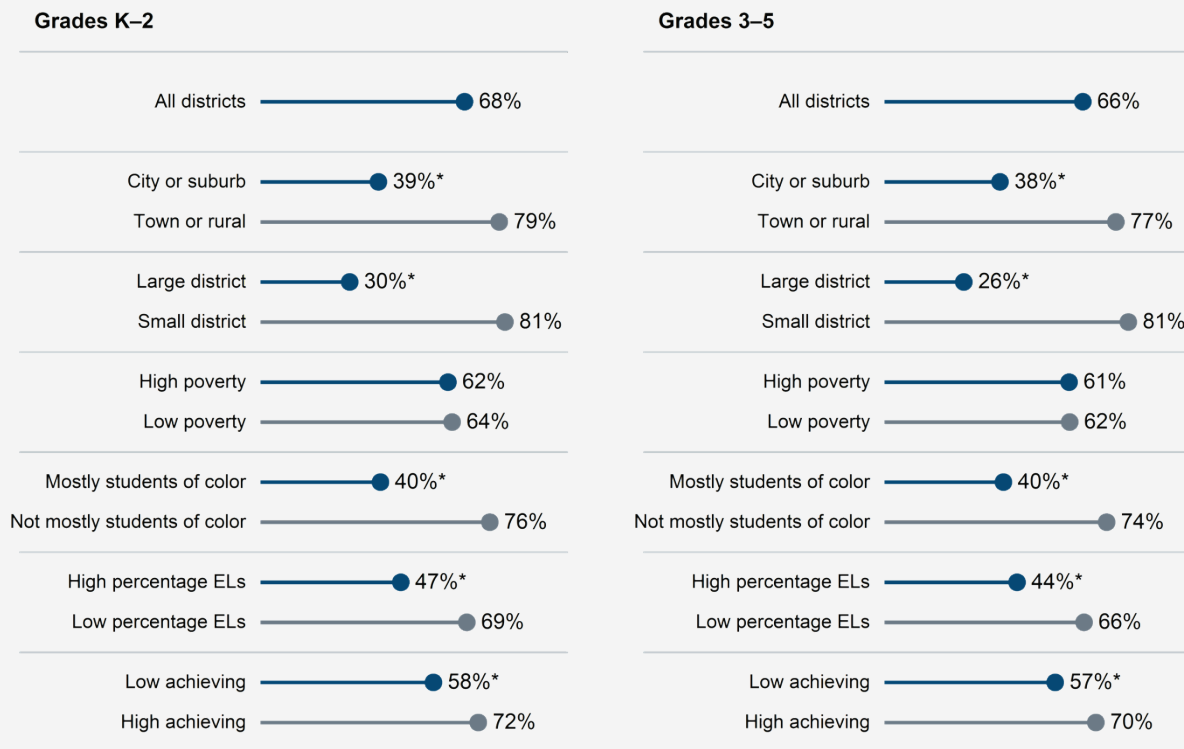


Figure 4. Instructional Modes in Winter 2021 by District Characteristics

Percentage of districts that were providing primarily in-person instruction



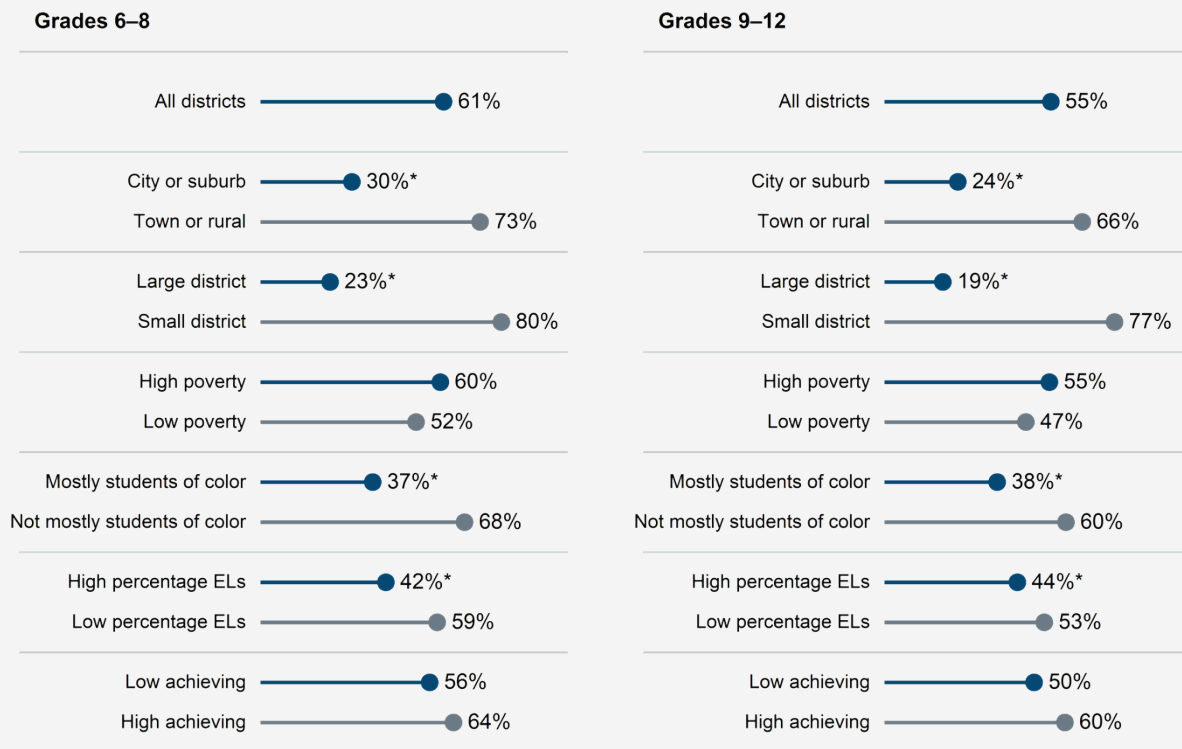
* Difference between district groups was statistically significant ($p < .05$).

Sample sizes (left panel). All = 550, City or suburb = 169, Town or rural = 381, Large = 67, Small = 216, High poverty = 165, Low poverty = 152, Mostly students of color = 142, Not mostly students of color = 407, High percentage ELs = 102, Low percentage ELs = 362, Low achieving = 179, High achieving = 183.

Sample sizes (right panel). All = 547, City or suburb = 167, Town or rural = 380, Large = 66, Small = 214, High poverty = 165, Low poverty = 151, Mostly students of color = 141, Not mostly students of color = 405, High percentage ELs = 102, Low percentage ELs = 359, Low achieving = 179, High achieving = 181.

Figure 4. Instructional Modes in Winter 2021 by District Characteristics (continued)

Percentage of districts that were providing primarily in-person instruction



* Difference between district groups was statistically significant ($p < .05$).

Sample sizes (left panel). All = 540, City or suburb = 165, Town or rural = 375, Large = 66, Small = 209, High poverty = 163, Low poverty = 151, Mostly students of color = 138, Not mostly students of color = 401, High percentage ELs = 100, Low percentage ELs = 355, Low achieving = 175, High achieving = 180.

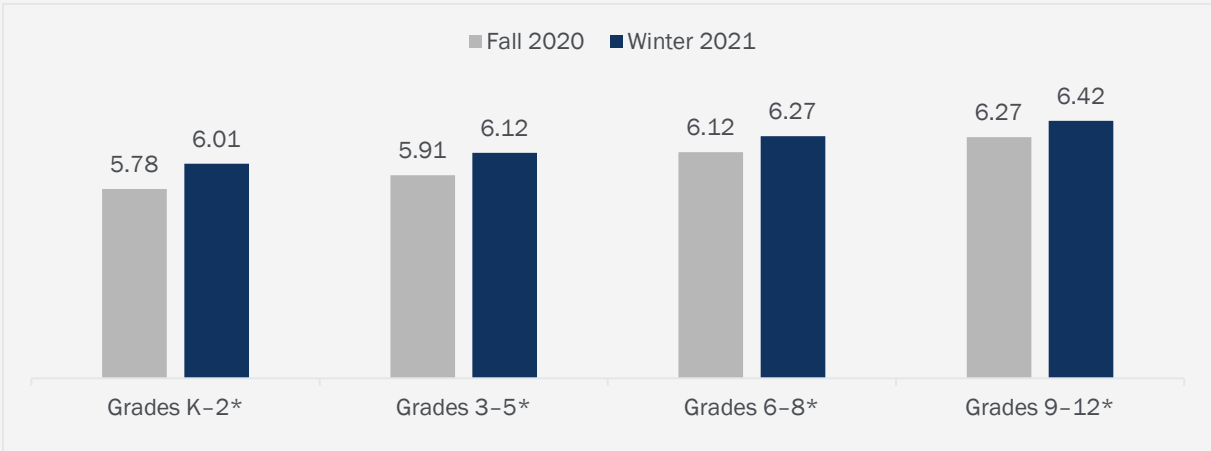
Sample sizes (right panel). All = 487, City or suburb = 138, Town or rural = 349, Large = 64, Small = 171, High poverty = 149, Low poverty = 126, Mostly students of color = 117, Not mostly students of color = 369, High percentage ELs = 77, Low percentage ELs = 339, Low achieving = 148, High achieving = 153.

Instruction Time in 2020–21

At the start of the pandemic, Garet et al. (2020, p. 2) reported that district leaders expected early elementary school students (Grades K–2) to spend an average of 2.2 hours per day on instructional activities, while high school students (Grades 9–12) were expected to spend 3.9 hours per day on such activities. The authors noted that “These time expectations are generally lower than the daily instructional hours required by states under normal circumstances. For instance, in many states, high school students are required to complete about six hours of instruction per day (Brixey, 2020).” Now, a year later, we asked district leaders to provide an update on the average number of hours per day that students were expected to spend on instructional activities (e.g., attending classes at school or online, working on assignments, etc.) in both fall 2020 and winter 2021 by grade. In general, we found that district expectations for instruction time in 2020–21 were more aligned with pre-pandemic requirements (e.g., about 6 hours per day for high school students), and that instruction time increased between the fall and winter terms (see Figure 5). However, our results also highlight significant differences in instruction time by district characteristics, including instructional mode. The remainder of this section explores these differences in more detail.

Figure 5. Instruction Time in 2020–21

Expected number of hours students were expected to spend on instructional activities (e.g., attending classes at school or online, working on assignments, etc.) per day in fall 2020 and winter 2021 by grade



* Difference between fall and winter was statistically significant ($p < .05$).
 Sample sizes. Grades K–2 = 539 districts, Grades 3–5 = 538 districts, Grades 6–8 = 532 districts, Grades 9–12 = 479 districts.

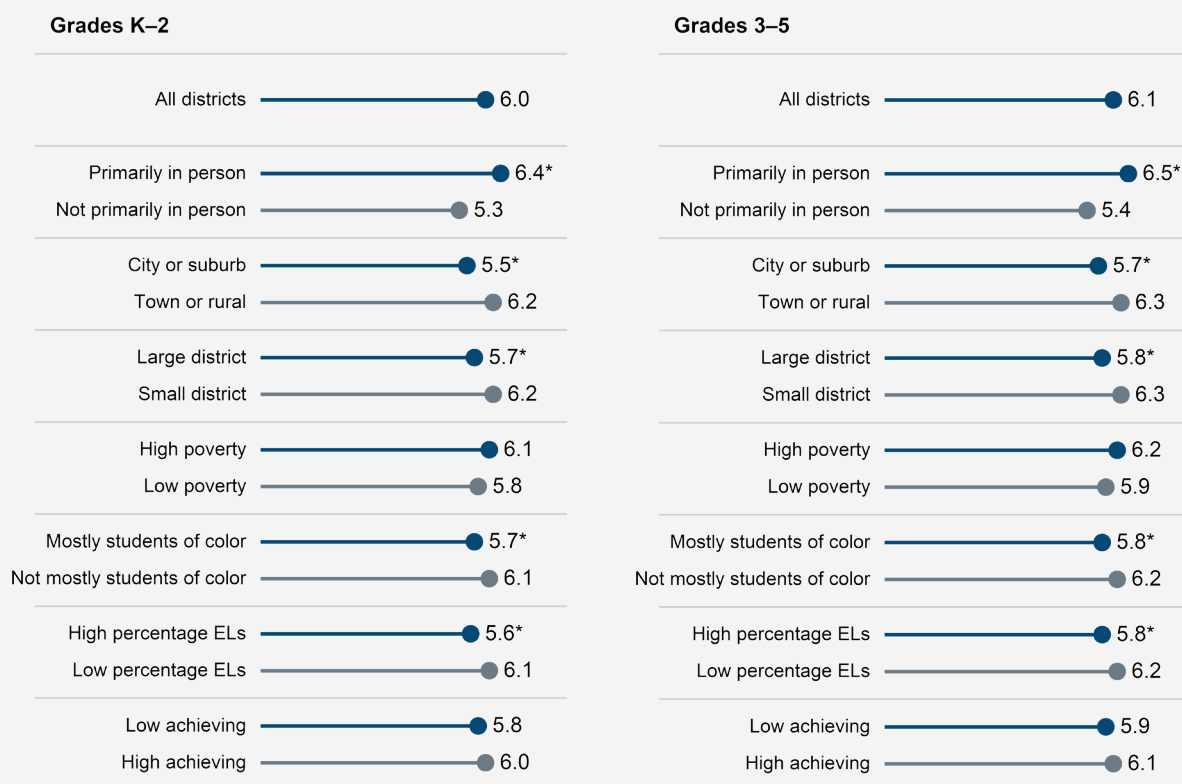
Differences in Instruction Time by District Characteristics

Although instruction time generally increased between fall 2020 and winter 2021, we found significant differences in instruction time by districts’ locale, size, racial composition, and concentration of English learners. In addition, districts that provided primarily in-person instruction expected more instruction time per day than districts that did not provide primarily in-person instruction (see Figure 6).¹⁰

Differences of fractions of an hour may seem insubstantial upon first glance, but the accumulation of these fractional differences over the course of the 2020–21 school year could have lasting effects. The Economic Policy Institute (Garcia & Weiss, 2020, p. 2) summarized a number of studies examining the connection between instruction time and academic achievement, concluding that “Reduced learning time has likely impeded student learning and also affected the development of the whole child.” The results presented in this brief suggest these losses may be exacerbated for students in urban districts, students in large districts, students of color, and students who are English learners. Additional supports may be needed to ensure these students do not get left behind by those who received greater amounts of instructional time during the pandemic.

Figure 6. Instruction Time in Winter 2021 by District Characteristics

Expected number of hours students were expected to spend on instructional activities per day



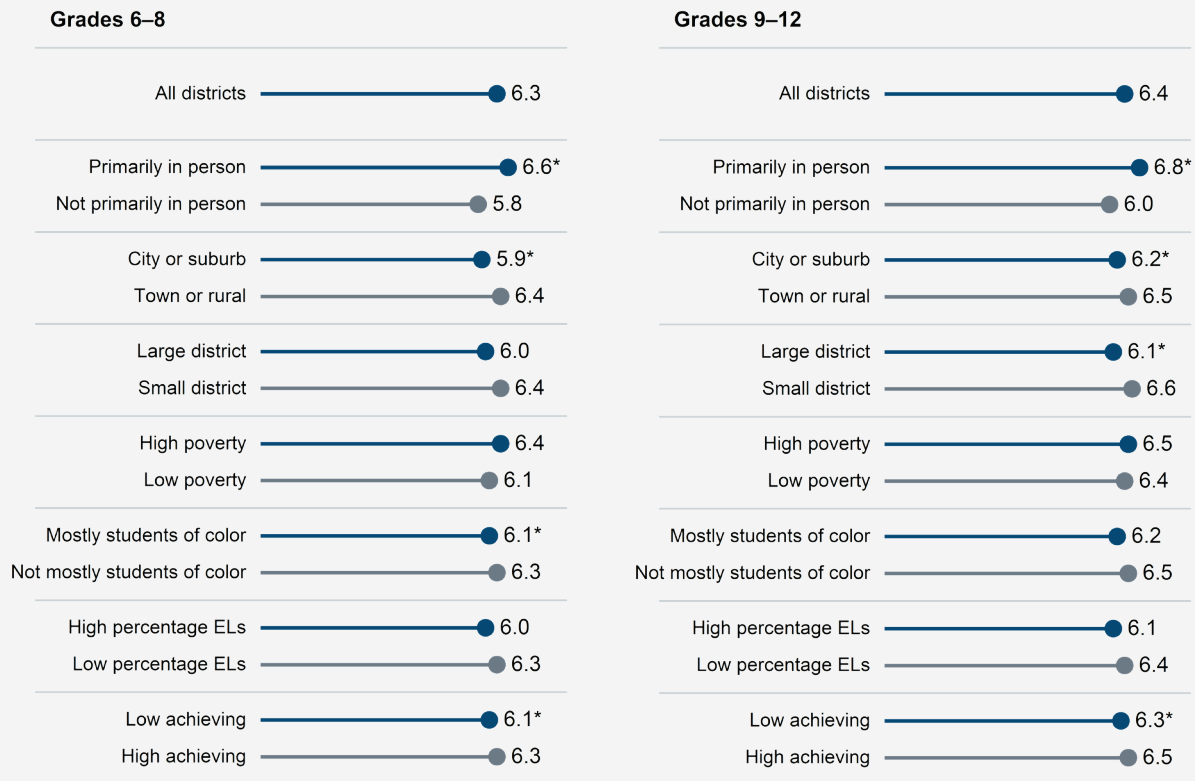
* Difference between district groups was statistically significant ($p < .05$).

Sample sizes (left panel). All = 550, Primarily in person = 361, Not primarily in person = 189, City or suburb = 169, Town or rural = 381, Large = 67, Small = 216, High poverty = 165, Low poverty = 152, Mostly students of color = 142, Not mostly students of color = 407, High percentage ELs = 102, Low percentage ELs = 362, Low achieving = 179, High achieving = 183.

Sample sizes (right panel). All = 547, Primarily in person = 348, Not primarily in person = 199, City or suburb = 167, Town or rural = 380, Large = 66, Small = 214, High poverty = 165, Low poverty = 151, Mostly students of color = 141, Not mostly students of color = 405, High percentage ELs = 102, Low percentage ELs = 359, Low achieving = 179, High achieving = 181.

Figure 6. Instruction Time in Winter 2021 by District Characteristics (continued)

Expected number of hours students were expected to spend on instructional activities per day



* Difference between district groups was statistically significant ($p < .05$).

Sample sizes (left panel). All = 541, Primarily in person = 320, Not primarily in person = 220, City or suburb = 165, Town or rural = 376, Large = 66, Small = 210, High poverty = 163, Low poverty = 151, Mostly students of color = 138, Not mostly students of color = 402, High percentage ELs = 100, Low percentage ELs = 355, Low achieving = 175, High achieving = 180.

Sample sizes (right panel). All = 487, Primarily in person = 268, Not primarily in person = 218, City or suburb = 138, Town or rural = 349, Large = 64, Small = 171, High poverty = 149, Low poverty = 126, Mostly students of color = 116, Not mostly students of color = 370, High percentage ELs = 77, Low percentage ELs = 339, Low achieving = 148, High achieving = 153.

Conclusion

Public school districts and their stakeholders faced many challenges in the 2020–21 school year as a result of the COVID-19 pandemic, and variations in state guidelines and community needs led districts to take different approaches to instruction during this time. The survey results presented in this brief indicate that instructional approaches differed by district characteristics. We found stark differences in instructional mode across the nine regions of the United States. In general, we also found that urban districts, large districts, districts serving mostly students of color, and districts with high concentrations of English learners were less likely to provide primarily in-person instruction and provided less instruction time than their respective counterparts. These disparities in educational opportunities may have lasting effects on student outcomes including academic achievement and social-emotional well-being. Our results highlight the need for supports that can minimize the effects of these disparities as school districts prepare to transition into the post-COVID era.

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Endnotes

¹ AIR funded and led the development of the first survey, which was administered by our partner NORC at the University of Chicago. We sent the survey to school districts in every U.S. state and Washington, D.C. The sample contained 2,536 districts, stratified by state (for districts in 12 focal states) or region (for districts in the remaining states) and by locale (urban, suburban, town, and rural). Within these strata, districts were drawn with probability proportional to the square root of enrollment. Large districts were drawn with certainty. The survey was open between May 20 and September 1, 2020, and 753 districts responded during that time. Results were weighted to adjust for nonresponse in the 64 state- or region-by-locale strata. More information about the 2020 survey methodology is available in the [Preliminary Technical Supplement](#).

² AIR also funded and led the development of the second survey, which was administered by our affiliate IMPAQ International, LLC. We initially sent the survey to the same 2,536 districts described above. Two months into the administration period, we sent the survey to the remaining 10,056 districts in our sampling universe in an effort to increase our sample size. The survey was open between January 26 and April 7, 2021, and 565 districts responded during that time. Results were weighted to adjust for nonresponse. More information about the 2021 survey methodology is available in the [Technical Supplement](#).

³ We defined district characteristics as follows:

- **Geographic Region.** Based on regional divisions determined by the U.S. Census Bureau (n.d.).
- **Locale.** Based on four locale categories (city, suburb, town, and rural) determined by the U.S. Department of Education (2019). We combined city with suburb, and town with rural.
- **Size.** Based on district enrollment data provided by the U.S. Department of Education (2019). Small = <1,000 students; Medium = 1,000 to <10,000 students; Large = 10,000 or more students.
- **Poverty.** Based on child poverty data provided by the U.S. Census Bureau (2019). Low = <10% of children; Medium = 10% to <20% of children; High = 20% or more of children.
- **Racial Composition.** Based on student demographic data provided by the U.S. Department of Education (2019). Mostly students of color = >50% non-White students; Not mostly students of color = 50% or fewer non-White students.
- **Concentration of English Learners.** Based on student demographic data provided by the U.S. Department of Education (2019). Low = <10% of students; High = 10% or more of students.
- **Historic District Achievement.** Based on achievement data for Grades 3–8 from 2008–09 to 2015–16 provided by the Stanford Education Data Archive (Reardon et al., 2019). The pooled achievement indicators draw from student performance records in English language arts and mathematics. Cutoffs for low, medium, and high achievement were determined using tercile calculations on the survey sampling frame (N=13,281 districts).

⁴ In the survey, we asked district leaders to report the percentage of students who received each type of instruction in winter 2021 (approximately the last week of January): in-person instruction only, hybrid with more in-person instruction, hybrid with equal in-person and remote instruction, hybrid with more remote instruction, and remote instruction only. This question was asked for each grade bracket offered by the district. For fall 2020, we asked district leaders “about how many students received all or most of their instruction in person” in the first month of the 2020–21 school year. This question was asked for each grade bracket offered by the district, with response options as follows: no students, some students (1%–25%), many students (26%–75%), or all or almost all students. For analyses where instructional mode is presented for Grades K–12 combined, we identified districts as “primarily in person for all grades offered” if their responses met the above criteria (more than 75% of students received all or most of their instruction in person) across every grade bracket offered in their district.

⁵ Our findings on instructional mode in winter 2021 are reasonably consistent with those presented on the Institute of Education Sciences’ (2021) School Survey Dashboard. For example, the dashboard indicates that 44% of fourth graders were enrolled in in-person instruction in March 2021, and an additional 21% were enrolled in hybrid instruction. For eighth-grade students, the dashboard indicates that 33% were enrolled in in-person instruction and 25% were enrolled in hybrid instruction in March 2021.

⁶ Our results on district priorities for in-person instruction are fairly consistent with those presented on the Institute of Education Sciences’ (2021) School Survey Dashboard. For example, the dashboard indicates that students with disabilities were the most prominent priority group in March 2021. English learners were also listed in districts’ top five priority groups.

⁷ Our findings on differences in instructional approaches by district characteristics are consistent with the findings of other researchers, including the aforementioned McKinsey Institute report (Dorn et al., 2020) and the RAND

Corporation report (Schwartz et al., 2021). The Institute of Education Sciences' (2021) School Survey Dashboard highlights similar differences by district locale and region.

⁸ Please note that the results by regional division do not reflect variation in instructional mode at the state level. **Sample sizes (Grades K–2):** New England = 23, Middle Atlantic = 33, East North Central = 167, West North Central = 83, South Atlantic = 50, East South Central = 21, West South Central = 65, Mountain = 48, Pacific = 60. **Sample sizes (Grades 3–5):** New England = 22, Middle Atlantic = 33, East North Central = 165, West North Central = 83, South Atlantic = 50, East South Central = 21, West South Central = 66, Mountain = 47, Pacific = 60.

⁹ Please note that the results by regional division do not reflect variation in instructional mode at the state level. **Sample sizes (Grades 6–8):** New England = 22, Middle Atlantic = 33, East North Central = 165, West North Central = 83, South Atlantic = 49, East South Central = 21, West South Central = 64, Mountain = 47, Pacific = 56. **Sample sizes (Grades 9–12):** New England = 18, Middle Atlantic = 30, East North Central = 147, West North Central = 81, South Atlantic = 51, East South Central = 20, West South Central = 64, Mountain = 43, Pacific = 33.

¹⁰ Our findings on differences in instruction time by in-person instruction status are consistent with the aforementioned RAND Corporation report (Schwartz et al., 2021).



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