What's Behind Racial Differences in Attitudes Toward School Reopening (and What to Do About Them)

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Key Points

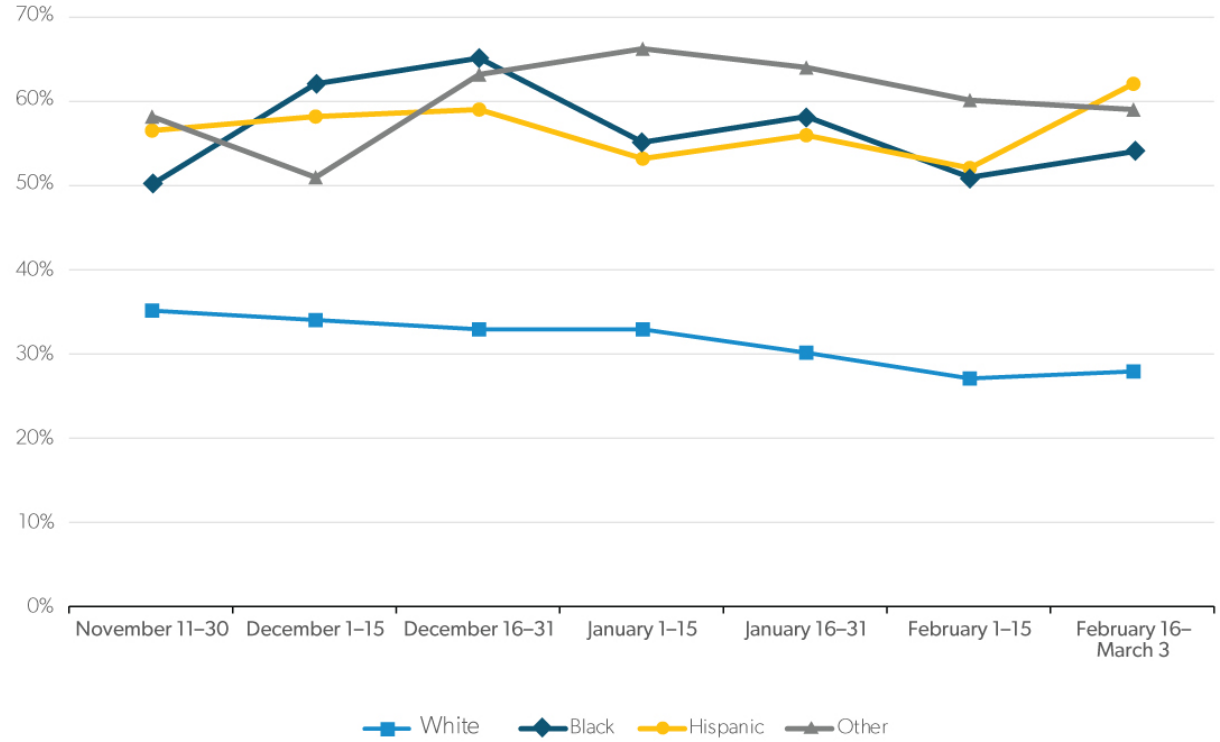
- Nearly twice as many parents of color reported that their child's school was providing only virtual instruction in November compared to white families, and racial gaps persisted into the spring.
- While there are significant racial differences in personal COVID-19 experiences and individual worries about the risks of severe outcomes, these explain little of the racial gap in preferences toward in-person learning.
- One of the strongest predictors of attitudes toward in-person learning is whether one's own school has reopened.
- The racial disparities in access to in-person learning options appear to be one *cause* (rather than merely a consequence) of continued disagreement among racial groups about whether it is safe for kids to return to school.

COVID-19 caused the most dramatic disruption of elementary and secondary education in our lifetime. By late March 2020, every US state had closed public schools in an effort to flatten the curve.[1] While many expected these closures to be short-lived, learning remained fully remote for nearly all students for the remainder of the spring, and most US school districts did not return to full-time in-person learning when schools reopened in fall 2020. The delays in reopening schools have coincided with the emergence of sharp divisions among parents in their willingness to send their children back to school—raising the proverbial chicken-and-egg question about whether public opinion is causing or simply responding to these delays.

This report examines the emergence and persistence of racial polarization in public opinion regarding when and whether to reopen schools. Leveraging different surveys fielded throughout 2020 and into early 2021, it documents that opinions on these issues became increasingly divided along both racial and partisan lines by early May 2020. The gap persisted through the summer and as schools began reopening in the fall, coinciding with big racial differences in access to in-person learning.

When the University of Southern California's (USC) Understanding America Survey first began asking parents about their preferences over modes of learning in November, a majority of parents of

Figure 1. Percentage of Parents Who Prefer Their Child's Schooling to Be Remote Only, by Race



Note: The figure presents the percentage of parents who answered "remote only" in response to the following question: "Given the state of the COVID-19 pandemic in your area and your school's safety protocols, how would you prefer [NAME] to attend school right now?"
Source: Author's calculations based on Understanding America Survey data.

color indicated they preferred their child to learn completely remotely, compared to only 35 percent of white parents.[2] As Figure 1 shows, this gap remained over the next five months, as the same respondents were reinterviewed in subsequent waves of the survey.[3]

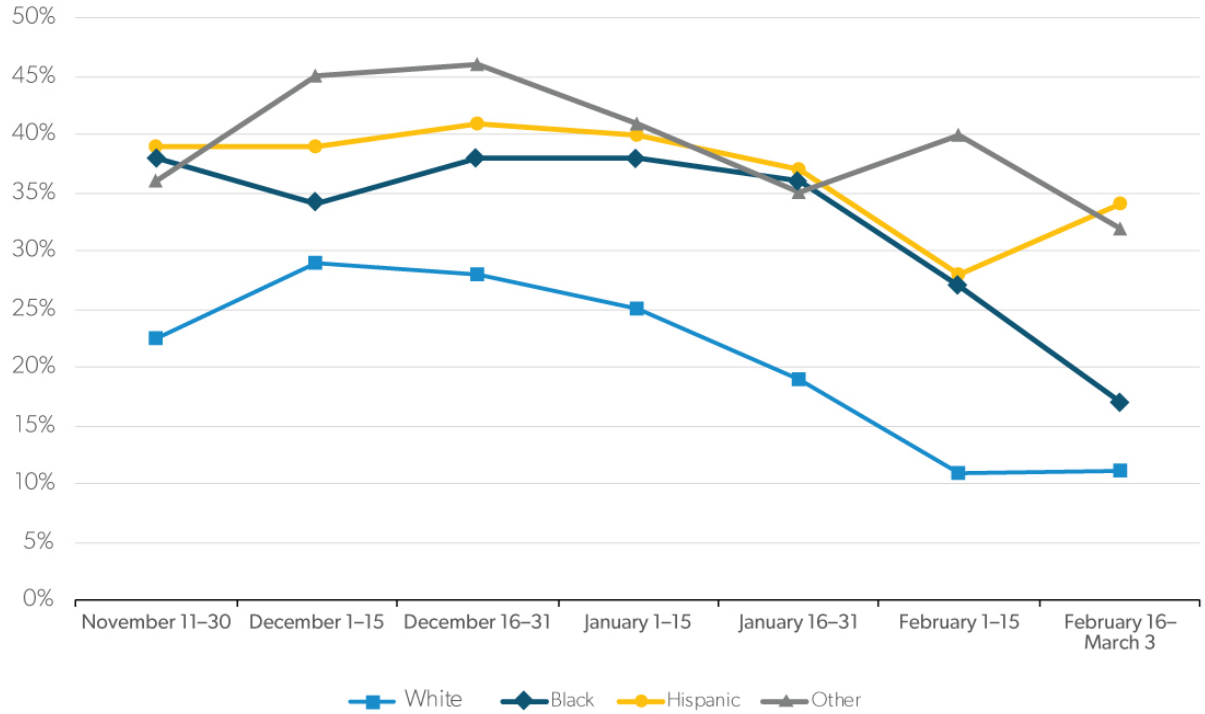
Similar racial differences emerged in whether local schools actually offered any in-person learning options. As Figure 2 shows, nearly twice as many parents of color reported that their child's school was providing only virtual instruction in November compared to white families. Although a growing number of parents of all racial and ethnic backgrounds indicated that their schools began to at least partially reopen in subsequent months, pronounced racial gaps continued through the survey wave completed in early March 2021. What is the relationship between parental attitudes and school districts' reopening decisions?

In tracking the evolution of public opinion on schools since the start of the pandemic, this report identifies several important patterns.

- The racial and partisan gaps in attitudes about reopening schools emerged rather suddenly in the first two weeks of May 2020. This period coincided with growing media coverage of racial disparities in COVID-19 impacts, although this does not seem to have been the main driver of polarization. Instead, a more plausible explanation—and one more consistent with the observed survey data—is that opinion over schools diverged sharply after a high-profile public disagreement on the issue between Anthony Fauci and then-President Donald Trump.

- Detailed public opinion data suggest that while there are significant racial differences in personal COVID-19 experiences and individual worries about the risks of severe outcomes (e.g., hospitalization or death) among parents, these explain little of the racial gap in parents' willingness to send their children back to school.

Figure 2. Percentage of Parents Who Report Child's School Is Not Offering Some In-Person Instruction, by Race



Note: The figure presents the percentage of parents who answered "zero" in response to the following question: "Approximately what percent of the students at [NAME]'s school are currently attending school in person?"
Source: Author's calculations based on Understanding America Survey data.

- One of the strongest predictors of attitudes toward in-person learning is whether one's own school has reopened. Following respondents in the USC survey over time, the analysis finds that parents become significantly more willing to resume in-person learning when their school reopens its doors. The racial disparities in access to in-person learning options documented in Figure 2 appear to be one *cause* (rather than merely a consequence) of continued disagreement among racial groups about whether it is safe for kids to return to school.

The racial differences among parents in school hesitancy—a reluctance to send their own children back to school—echo other worrying trends in attitudes related to the pandemic, including the documented gaps in vaccine hesitancy. Understanding the events that precipitated the racial polarization in public attitudes toward resuming in-person learning and the underlying causes of these gaps is important for two reasons.

First, these disparities are increasingly being weaponized by activists and interest groups in the political debates over the pace and timing of reopening decisions. For example, when California lawmakers adopted a school reopening plan in early March 2021, the Los Angeles teachers union said it amounted to "a recipe for propagating structural racism."[4] Several weeks later, teachers union representatives in Oakland urged their colleagues to vote against a school reopening plan negotiated by other union leaders, calling the draft agreement "a betrayal of the right of black, Latina/o, and poor and working class parents to keep their families safe."[5]

Second, lingering worries among parents of color could exacerbate educational inequalities that preceded the pandemic and have grown only worse over the past year. When schools in Chicago, New York, and Washington, DC, announced their partial reopening plans in recent months, white families were significantly more likely to sign up for these in-person opportunities (Table 1). A number of districts have already announced plans

to make fully remote options available for the 2021–22 academic year. If minority families continue to take advantage of these options at higher rates, research suggests that already-substantial racial gaps in achievement will grow further.

Understanding minority families' concerns about in-person learning can help policymakers design appropriate messaging and confidence-building efforts that will be necessary to make all parents feel comfortable sending their children back to school. This report concludes with several concrete policy recommendations to help overcome this school hesitancy.

Table 1. Racial Disparities in Opt-In Rates for In-Person Learning

	Percentage of In-Person Students	Percentage of Total Enrollment
New York		
Black	19%	22%
Hispanic	45%	41%
White	24%	16%
Chicago		
Black	31%	36%
Hispanic	40%	47%
White	24%	11%
DC*		
Black	42%	65%
Hispanic	23%	16%
White	28%	14%

Note: *DC in-person enrollment data are for pre-K and elementary grades, including charter schools.
Source: Author's calculations based on news reports and publicly available data.

When Did Opinions on Schools Polarize?

In recent weeks, commentators have suggested that disagreement about schools is symptomatic of broader structural racism in American society generally and its public education system in particular. In explaining black families' reluctance to embrace school reopening, an article in the progressive magazine *Mother Jones* concluded:

> The long history of racism in public schooling—from de facto segregation and funding inequities to the overpolicing of Black bodies—as well as the systemic racism that impedes access to and delivery of quality health care for Black people, permeates their thinking and actions.[6]

Another op-ed from a Maryland pediatric health professional largely echoed this view.

> The issue of reopening schools in dense urban and minority areas has become complicated over issues of access and trust. When communities of color have had to fight longstanding battles to be treated equitably, why should they trust that their children will be safe when they return to school? When they have had to fight so long for more resources for clean water in their schools, why should they now trust that the school air systems will be able to handle this virus?[7]

These perspectives are no doubt valuable for understanding the unique concerns and considerations influencing decision-making in these historically disadvantaged communities. But it's not obvious that these inequities are driving public opinion or school hesitancy. For one thing, they cannot explain why racial gaps in attitudes toward schools emerged so suddenly in spring 2020.

In the early months of the pandemic, surveys showed near-consensus on schools. For example, an Associated Press–NORC poll fielded in the final days of March 2020 asked about opinions on the recently announced closures of schools. Respondents overwhelmingly supported the closures. White respondents were actually *more* likely to say that they "somewhat" or "strongly" supported closures (85 percent) than were minority respondents (80 percent), although this gap fell just short of statistical significance at conventional levels.[8] Perhaps equally surprisingly, self-identified Democrats and Republicans had almost no difference in opinion.

A month later, at the end of April 2020, another poll commissioned by ABC News and Ipsos found similar patterns. When asked how likely they would be to send their kids back to school if "social distancing orders and restrictions on public activity were lifted tomorrow," only 10 percent of both white and nonwhite parents responded they would be very or somewhat likely to do so. Republicans (10 percent) were only modestly more willing than

were Democrats (6 percent) to say they would send their kids back to school.

However, public opinion shifted quickly. Another ABC News–Ipsos poll fielded just two weeks later painted a dramatically different picture. Although willingness to resume in-person learning that spring increased somewhat across the board on this mid-May survey,[9] the gains were much larger among white and Republican respondents. Among white parents, 41 percent said they were "currently willing" to resume in-person learning, compared to 20 percent of minority respondents. The partisan gaps were even more pronounced, with 48 percent of Republicans saying they would be willing to send their kids back to school compared to 15 percent of Democrats.

What changed in this two-week period that caused public opinion to polarize so suddenly? One possibility is that media coverage increasingly highlighted the racial disparities in direct COVID-19 health impacts. In early May, for example, a new report from Britain's Office of National Statistics found that black Britons were about twice as likely to die from the virus as their white counterparts were, which attracted significant media coverage in the United States.[10] Other stories drew attention to similar disparities in America.[11]

However, it's not obvious that this coverage represented an increase in the salience of racial disparities. For example, the Centers for Disease Control and Prevention (CDC) began releasing disaggregated COVID-19 statistics a month earlier, generating considerable media attention,[12] and a CDC-published study released in mid-April revealed significant racial disparities in hospitalization rates.[13] Nevertheless, public opinion showed no important racial differences later that month.

A more plausible explanation for the sudden divergence in public opinion was a high-profile Senate hearing on May 12, featuring Dr. Fauci and CDC Director Robert Redfield. At the hearing, Sen. Rand Paul (R-KY) noted that children appeared to be far less likely to die from the virus and asked for assurances that schools would reopen in the fall. Fauci pushed back, arguing that school reopening decisions should be based on local conditions, and warned that the evidence regarding COVID-19 impacts on children was still evolving.[14]

Asked about Fauci's comments at a White House event the next day, President Trump came out strongly in favor of opening schools in the fall: "Well, I think they should open the schools, absolutely."[15] When asked about Fauci's comments the day before, the president disagreed: "Well, I was surprised—I was surprised by his answer, actually, because, you know, it's just—to me, it's not an acceptable answer, especially when it comes to schools."

The public disagreement received considerable media attention and may explain the growing divide recorded in the ABC News–Ipsos survey fielded the next day. Rather than representing a case of temporary partisan cheerleading, however, opinions did not converge as the issue faded from the news. Instead, partisan and racial divisions hardened over time. In an Axios-Ipsos poll in early July, Democrats were about 30 percentage points more likely than Republicans were to say that sending their children back to school in the fall would pose a large or moderate risk to their "health and well-being." Broken down by race, 89 percent of black and 80 percent of Hispanic parents agreed, compared to 64 percent of white parents.[16]

Even as President Trump and Secretary of Education Betsy DeVos continued to argue for reopening schools, opponents launched their own messaging campaigns and publicity stunts. In late July, members of the Washington, DC, teachers unions brought mock body bags to the district headquarters, saying they represented what would happen if the district reopened. In Northern Virginia, the Prince William Education Association staged a 100-car protest caravan, including several vehicles decorated with child-sized coffins.[17] As some districts announced plans to remain remote in the fall, their leaders' public communication emphasized the risks posed by reopening, although emerging evidence showed that the virus largely spared the young the most severe complications. In a school board meeting video that went viral on social media, a board member in Alexandria, Virginia, where schools remained virtual, asked rhetorically, "Do you want your child to be alive or to be educated?"[18]

The initial opinion divisions revealed in May proved durable, with the issue of schools deeply polarized among partisan and racial lines. Indeed,

two separate studies found local voter partisanship to be the strongest predictor of whether local schools actually reopened in fall 2020—much more so than objective public health conditions in these communities.[19] One consequence of continued closures in overwhelmingly Democratic big cities, however, was that these districts also disproportionately enrolled students of color, limiting access to in-person learning among nonwhite school children and continuing to expose their parents to messaging from local district officials rationalizing ongoing school closures on public health grounds.

What's Driving Continued Racial Disparities in School Hesitancy?

As the above chronology suggests, several plausible mechanisms may have contributed to the racial gaps in public opinion over in-person learning. First, growing evidence of racial disparities in severe health outcomes may have made parents of color particularly concerned about the role schools could play in fueling community spread (e.g., by students bringing the virus home and infecting family members). Second, the racial divisions could reflect partisan polarization on this issue, given the relatively strong relationship between race and partisan identification in American politics. Third, public opinion could reflect a "follow the leader" process in which elite messaging—either from interest groups or local school officials—shaped mass preferences, with parents in districts that remained closed into the fall disproportionately exposed to district communications and press coverage that increased the salience of health risks posed by school reopening. Finally, differences in opinion could reflect long-run distrust among nonwhite communities toward public agencies and skepticism that local districts would have the capacity or resources necessary to implement the required safety measures with full fidelity.

To be clear, these explanations are not mutually exclusive, and indeed they all likely contribute to the racial divisions in opinion to some extent. The goal of this analysis is to understand the *relative* importance of these explanations, as they imply different interventions and messages that will be necessary to increase parent confidence sufficiently to allow their children to return to the classroom.

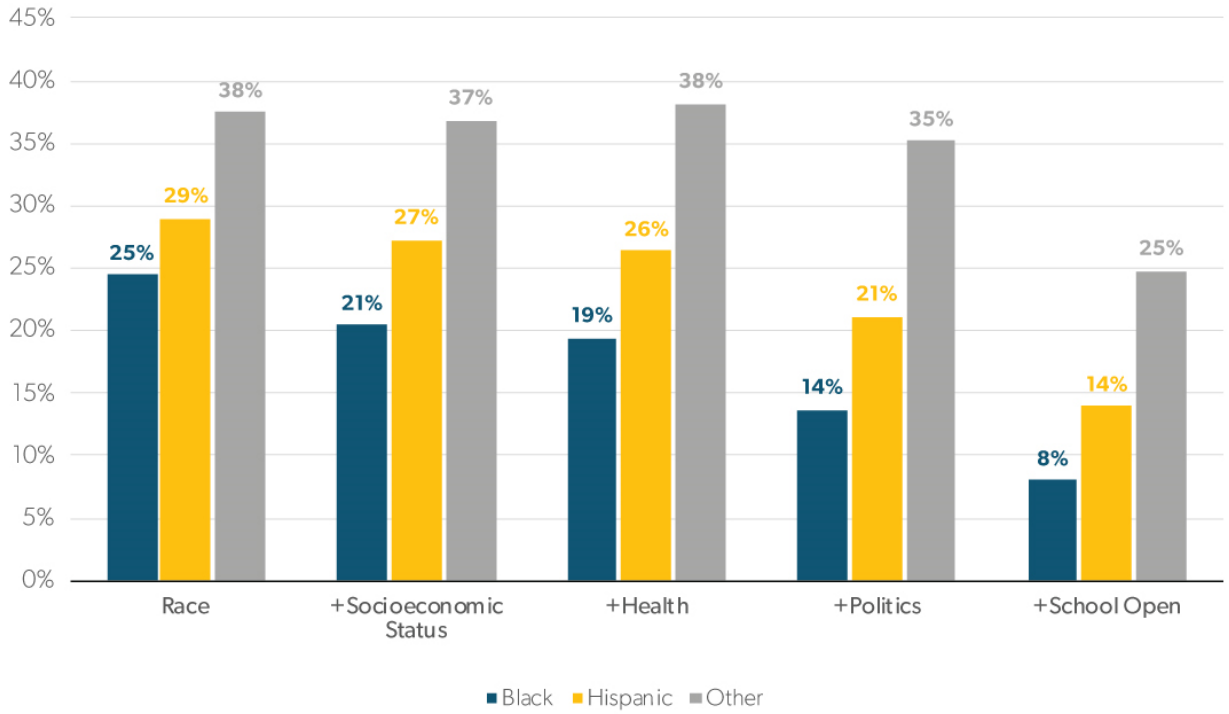
To do so, the analysis relies on a multivariate statistical model that controls for various factors likely to be implicated in these explanations. For example, if greater concern about COVID-19 hospitalization or death among minorities is driving differences in public opinion toward in-person learning, statistically controlling for such concerns should greatly reduce the observed racial differences in opinion. As the results show, accounting for such concerns leaves racial gaps largely unchanged, suggesting that they are not the primary driver of the observed differences in attitudes.

The presentation begins with data from the wave of USC's Understanding America Survey that was fielded between February 3 and March 2, 2021, the most recent available at the time of writing, before turning to changes over time using earlier waves of the survey. The survey includes an unusually extensive set of questions related to health and personal COVID-19 experiences and concerns—including about comorbidities, household composition, access to health insurance, whether family members or close friends have been hospitalized or died, and subjective beliefs about the probability of a severe outcome if infected.

The results from these analyses are presented in Figure 3, with additional technical details reported in the statistical appendix. The figure plots coefficient estimates from a multivariate regression model predicting parental preferences for remote-only learning for their child. The "zero" value on the y-axis is normalized to represent the average among white respondents. In other words, each bar in the figure shows how much more likely parents in each nonwhite group are to prefer that their child continues learning remotely, compared to white parents, 27 percent of whom indicated a preference for remote-only learning for their child. For example, the number in the first blue bar in the figure (25 percent) indicates that black parents were 25 percentage points *more likely* to express a preference for remote learning, meaning that 52 percent of black parents in total preferred this mode (27 + 25 = 52).

Each set of shaded bars represents a set of regression coefficient estimates. The first set of bars simply summarizes the raw racial differences

Figure 3. Explaining Racial Gaps in Greater Preferences for All-Remote Learning Among Parents of Color



Note: This figure presents coefficient estimates from a linear probability model estimates for answering "remote only" in response to the following question: "Given the state of the COVID-19 pandemic in your area and your school's safety protocols, how would you prefer [NAME] to attend school right now?" The data are from February and March 2020 wave of the Understanding America Study. Sample is limited to respondents with school-age kids, and analysis is run using the provided sampling weights. Socioeconomic status controls include income and education. Comorbidity and health controls include a standardized comorbidity index incorporating eight conditions (diabetes, cancer, heart disease, high blood pressure, asthma, chronic lung disease, kidney disease, autoimmune disease, and obesity), whether the respondent has health insurance, whether the respondent has previously tested positive for COVID-19, belief about probability of hospitalization or death if infected, how many family members or close friends have tested positive for COVID-19, whether the respondent has family or close friends who were hospitalized or died from the disease, and whether the respondent lives in a multigenerational household. Political attitudes are measured as reported trust in President Biden and former President Trump as "sources of information about coronavirus."
Source: Author's calculations based on Understanding America Survey data.

in preference for remote-only learning, without any additional variables. Moving from left to right, each set of bars adds a new set of statistical controls, with the last three bars representing estimates from a fully saturated model that includes all the covariates.

The second set of results adds statistical controls for family income and respondent education levels. Next, the analysis controls for objective health status and self-reported concerns, accounting for various comorbidities that increase the risk of a severe health outcomes, prior exposure to the disease among close friends and relatives, access to health insurance, whether the respondent lives in a multigenerational household, and subjective beliefs about COVID-19 risk. The fourth set of estimates accounts for partisanship. Although the survey does not ask about partisanship directly, it does include several questions about respondent trust in President Joe Biden and former President Trump in providing accurate information about the pandemic, and these are used as proxies for respondent partisanship. Finally, the last set of estimates controls for whether parents report that their child's school has resumed in-person instruction.

Three key findings stand out. First, personal experience with COVID-19 and beliefs about future risk do not appear to explain much of the racial gap in parents' willingness to send their children back to school.[20] Including these controls leaves the racial gaps almost completely unchanged.

Second, partisanship is an important part of the story—at least for black and Hispanic parents. Accounting for partisanship greatly reduces the preferences for remote learning among these groups, although it does not substantially affect attitudes among other nonwhite respondents.[21]

Third, whether one's own school has reopened turns out to be the single best predictor of whether parents are willing to send their children back. Among respondents whose child's school was offering in-person instruction in February and March, support for remote-only learning was nearly 60 percentage points lower than among families whose school remains fully remote. Additionally, controlling for local school reopening status greatly attenuates the racial gaps in the observed preferences for online learning. Thus, the results suggest that racial disparities in access to in-person learning options documented in Figure 2 may be a central *cause* (rather than merely a consequence) of continued disagreement among racial groups about whether it is safe for kids to return to school. The next section provides direct evidence on this point.

However, while controlling for all these variables greatly diminishes the observed racial differences in opinion—by two-thirds among black parents and more than half among Hispanic parents—doing so does not eliminate these racial divisions altogether.

Why Reopening Schools Will Help Narrow Opinion Gaps

The cross-sectional relationship between current school reopening status and parent preferences for in-person learning suggests that as more schools reopen, more parents may become comfortable sending their kids back and racial gaps could shrink. On the other hand, it is difficult to separate correlation from causation using data from a single point in time. For example, higher support for in-person learning in some communities could explain why schools opened earlier in some areas than in others—with opinion driving school reopening, rather than reopening driving opinion.

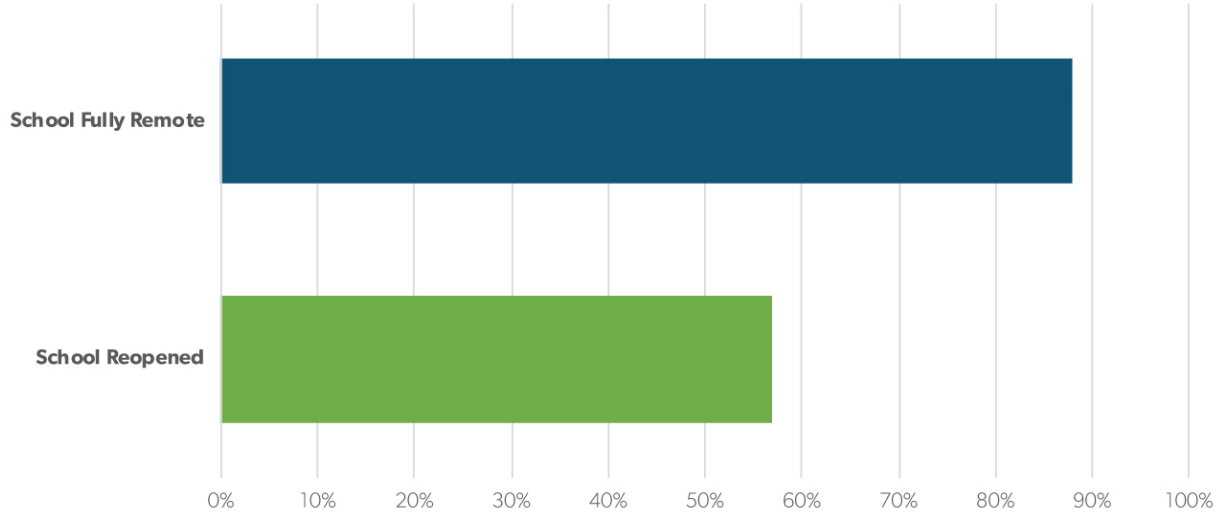
Fortunately, the Understanding America Survey follows the same respondents over time, so we can examine how opinion toward in-person learning changes as schools reopen. To do so, the analysis leverages variation in the precise timing of when respondents' own schools reopened compared to other parents in the panel and examines whether their opinions changed after their school resumed in-person instruction, relative to parents whose own school remained fully remote. To ensure that both reopening decisions and parental attitudes are not simply responding to the rise and fall of COVID-19 cases, hospitalizations, and deaths, this analysis controls for these metrics in each respondent's state at the time of each survey interview.

Whether one's own school has reopened turns out to be the single best predictor of whether parents are willing to send their children back.

The results from this analysis, reported fully in the statistical appendix, provide strong evidence that school reopening increases parental support for in-person learning. Interestingly, parental preferences for online-only instruction decline most significantly immediately *before* schools actually resume in-person classes, suggesting perhaps that the announcement of school reopening (rather than the reopening itself) has the most pronounced impact on parent opinion. This shows the importance of messaging from local district officials in building parent confidence and trust.[22] In other words, when local officials announce school reopening plans, they send a strong signal that students can come back safely, and this influences parents' opinions. Similarly, when district leaders insist it is not yet safe to reopen schools, many parents follow their cue.

The impact of school reopening on parents' attitudes can be seen most strikingly by tracking the changes in opinion between the earliest and most recent waves of the USC survey. Consider a parent whose child's school was closed in November and who expressed a preference for staying remote at that time. By February, 88 percent of these parents continued to prefer keeping their child in remote-only learning if their own school remained shut—but this fell to 57 percent among

Figure 4. Percentage of Parents Still Preferring Remote-Only Option, Among Those Who Did So in November and Whose Own School Was Closed Then



Note: The figure presents the percentage of parents who answered "remote only" in response to the following question: "Given the state of the COVID-19 pandemic in your area and your school's safety protocols, how would you prefer [NAME] to attend school right now?" The data are from Wave 24 of the Understanding America Study and limited to parents who answered "remote only" on Wave 18 of the same survey and also reported that their child's school was not offering any in-person learning at the time.
Source: Author's calculations based on Understanding America Survey data.

families whose schools had reopened in the meantime (Figure 4). In other words, more than 40 percent of those who had initially said they wanted to keep their child home came around when their own school ultimately reopened (versus just 12 percent of those whose schools never opened).

Policy Implications

The findings presented above suggest that protracted school closures have created a self-reinforcing policy feedback loop, reducing support for resuming in-person learning. Since these closures have been concentrated in large urban school districts, this may have directly contributed to racial disparities in support for reopening schools and observed differences in parents' willingness to send their children back to schools. One piece of good news is that the accelerating pace of school reopening will do much to alleviate school hesitancy and help narrow these gaps. Less encouragingly, however, the data also suggest that some substantial racial differences will persist.

The lingering concerns among parents deserve urgent attention from policymakers, particularly if parents of color continue to disproportionately take advantage of online learning options into the 2021–22 academic year. Racial gaps in student achievement were already substantial before the pandemic and have only grown since March 2020.[23] Continued availability of virtual options risks exacerbating these disparities, creating a two-tier public education system—an in-person model serving mostly white students and a new buffet of inferior online options used disproportionately by families of color.

As policymakers grapple with these new realities, they should consider the following recommendations.

School districts should be judicious about offering virtual learning options next fall, after all adults who would like to get vaccinated have received their shots. While online programs may be a good option for a small subset of students, most students do best academically and socio-emotionally when they are in school in person. At minimum, ability of individual student to continue in virtual programs should be contingent on ongoing student participation and engagement.

While state leaders have become increasingly impatient in their efforts to encourage local districts to reopen, they should be cautious about ordering the resumption of full-time, in-person

learning via legislative fiat or executive order. Such efforts might backfire if they create the impression that schools are being forced to reopen before it is safe for them to do so, causing concerned parents to opt for available online options instead. The broader point is that building confidence and trust among parents should be at the forefront of efforts to reopen schools. Rushed efforts that undermine this trust risk exacerbating educational inequities.

Although state lawmakers should probably resist the temptation to order schools to open, they can take steps that align the incentives for local districts with student needs. For example, they can link state funding for continuing online programs to actual log-in time and participation—rather than district-reported "attendance." Doing so will discourage districts from creating half-baked online offerings and encourage them to keep a close eye on student engagement.

Regardless of what state and local leaders ultimately decide, parents who continue to worry about their students returning to school will have other options, including private online schools and homeschooling. Indeed, concerns about losing enrollment from school-hesitant families no doubt explain why some districts plan to continue offering virtual options of their own. Although homeschooling has long remained a third rail for education politics—given homeschooling communities' well-organized and vocal advocacy—it is important that policymakers build in guardrails and continue monitoring students (e.g., via annual standardized exams) to ensure that students in families who took advantage of these nontraditional options do not fall through the cracks as others return to in-person learning.

A national messaging and advertising campaign to overcome school hesitancy is needed sooner rather than later. Such efforts should emphasize the importance of in-person learning for student achievement and well-being and highlight the mitigation efforts in place to avoid the spread of COVID-19 in school buildings. Just as the Ad Council recently launched a $50 million advertising program to encourage vaccination, similar efforts should be taken to address parents' concerns about school reopening and overcome lingering school hesitancy.

Conclusion

The initial consensus about the need to close schools to control the COVID-19 pandemic quickly faded by early May 2020, giving rise to substantial partisan and racial differences in support for resuming in-person learning. These differences persist a year into the pandemic, the apparent result of growing political polarization over the issue and families' own divergent experiences with and access to in-person schooling options.

There is real risk that racial gaps in school hesitancy will persist into the next academic year and influence student enrollment into alternative modes of instructional delivery, exacerbating educational inequality and limiting long-run economic opportunity for historically disadvantaged groups. As with ongoing concerns about vaccine take-up rates among nonwhite populations, this is an important issue that deserves attention and action from policymakers.

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About the Author

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Statistical Appendix

This appendix reports the full regression results that are summarized in the report. Two types of analyses are presented. The first focuses on cross-sectional variation in support for in-person learning from the most recent wave (at the time of writing) of the University of Southern California survey, which was completed on March 3. (The results are substantively identical if the previous survey wave is used instead.) The results model the probability that a respondent answers "remote only" in response to the following question: "Given the state of the COVID-19 pandemic in your area and your school's safety protocols, how would you prefer [NAME] to attend school right now?" The sample is limited to respondents with school-age children.

The second analysis combines all the available survey waves during which the question about the preferred mode of instruction was asked. Taking advantage of the panel structure of the data, this analysis includes both respondent and survey wave fixed effects,[24] essentially modeling how preferences change over time as school reopening status shifts.

The cross-sectional results are reported in Table A1. The table reports linear probability model estimates from an ordinary least squares regression for ease of interpretation. The bottom of the table shows the percentage of white respondents preferring the remote-only opinion, providing the baseline against which the race coefficients can be judged.

Model (1) includes separate dummies for each racial or ethnic category (pooling small groups into a residual "other race" category). Model (2) adds statistical controls for income and education level. Model (3) includes an entire suite of health-related measures, including self-reported comorbidities, access to health insurance, whether the respondent has tested positive for COVID-19, whether the respondent lives in a multigenerational

Table A1. Race and Preferences for Remote-Only Schooling

	(1)	(2)	(3)	(4)	(5)
Black	0.245***	0.205***	0.194***	0.137**	0.0807
	(0.0489)	(0.0508)	(0.0531)	(0.0557)	(0.0525)
Latino	0.290***	0.272***	0.264***	0.211***	0.140***
	(0.0448)	(0.0456)	(0.0465)	(0.0459)	(0.0430)
Other Race	0.375***	0.368***	0.381***	0.352***	0.248***
	(0.0720)	(0.0685)	(0.0714)	(0.0726)	(0.0680)
Own School Open					–0.566***
					(0.0503)
White Mean	0.272	0.272	0.272	0.272	0.272
Observations	1,602	1,600	1,559	1,553	1,553
R-Squared	0.085	0.101	0.137	0.157	0.247
Socioeconomic Status Controls	No	Yes	Yes	Yes	Yes
Comorbidity/Health Controls	No	No	Yes	Yes	Yes
Political Controls	No	No	No	Yes	Yes

Note: Standard errors are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Linear probability model estimates are for answering "remote only" in response to the following question: "Given the state of the COVID-19 pandemic in your area and your school's safety protocols, how would you prefer [NAME] to attend school right now?" The data are from Wave 24 of the Understanding America Study, which is maintained by the Center for Economic and Social Research at the University of Southern California. The sample is limited to respondents with school-age kids, and analysis is run using the provided sampling weights. Socioeconomic status controls include income and education. Comorbidity and health controls include a standardized comorbidity index incorporating nine conditions (diabetes, cancer, heart disease, high blood pressure, asthma, chronic lung disease, kidney disease, autoimmune disease, and obesity), whether the respondent has health insurance, whether the respondent has previously tested positive for COVID-19, belief about probability of hospitalization or death if infected, how many family members or close friends have tested positive for COVID-19, whether the respondent has family or close friends who were hospitalized or died from the disease, and whether the respondent lives in a multigenerational household. Political controls are questions measuring trust in President Joe Biden and former President Donald Trump to provide accurate information about the pandemic.
Source: Author's calculations based on Understanding America Survey data.

Table A2. Modeling Change in Preference for Remote-Only School over Time

	(1)	(2)	(3)
Own School Open$_{t-1}$			–0.0423**
			(0.0207)
Own School Open$_{t}$	–0.108***	–0.0948***	–0.0765***
	(0.0176)	(0.0171)	(0.0234)
Own School Open$_{t+1}$			–0.109***
			(0.0230)
Observations	10,716	10,712	5,928
R-Squared (Within Respondent)	0.020	0.031	0.033
Number of Respondents	2,119	2,117	1,471
COVID-19 Controls	No	Yes	Yes
Respondent Fixed Effects	Yes	Yes	Yes
Survey Wave Fixed Effects	Yes	Yes	Yes

Note: Robust standard errors are clustered by respondent in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Linear probability model estimates are for answering "remote only" in response to the following question: "Given the state of the COVID-19 pandemic in your area and your school's safety protocols, how would you prefer [NAME] to attend school right now?" The data are from Waves 17–24 of the Understanding America Study, which is maintained by the Center for Economic and Social Research at the University of Southern California. COVID-19 controls include the prior seven-day average of COVID-19 infections, hospitalizations, and deaths per 100,000 population in the respondent's state.
Source: Author's calculations based on Understanding America Survey data.

household (created based on the reported household composition), how likely the respondent believes he or she is to become hospitalized or die if infected, and previous exposure to the virus among close friends and family members. Model (4) includes the proxies for partisanship, two questions measuring trust in President Joe Biden and former President Donald Trump to provide accurate information about the pandemic.

Finally, Model (5) adds an indicator for whether the respondent's child's own school is open. This is measured as the estimated percentage of students in the child's school who are attending in person. To account for likely measurement error in the respondents' estimates, this variable is coded as zero if no students are reported to be attending in person, 1 if all students are reported as attending in person, and 0.5 if some but not all students are reported as attending in person.[25] Note that attendance may be less than 100 percent either because the school was using some sort of hybrid delivery model or because some parents voluntarily opted for a remote-learning option (if one is available).

The intent of this analysis is not necessarily to estimate coefficients that can be given a causal interpretation but rather to quantify how much of the raw, bivariate racial differences in preferences can be explained by other characteristics and attitudes likely to be correlated with race. Thus, the question of interest is how much the racial coefficients shrink as additional covariates are added to the model—and the magnitude of the residual racial differences that remain once all the available covariates have been included.

Table A2 moves closer to a causal analysis, motivated partly by the large effect of one's own school being open on reported preferences for in-person learning that is observed in Model (5) of the cross-sectional results. By including two-way fixed effects (for respondent and survey wave), the model exploits differences in timing of when schools reopen across respondents. (Only respondents whose child's self-reported school reopening status changes over the panel contribute identifying variation.) The key assumption necessary to interpret these estimates causally is that opinion toward in-person learning would have evolved similarly over time among respondents in the absence of changes in their own school's reopening status. The same "own school open" variable coding scheme as described above is used here as well.

Model (1) of Table A2 indicates that support for remote-only schooling declined by about 11 percentage points on average after the respondent's child's school switched from completely closed to fully reopened, with 100 percent student attendance. One concern, of course, is that the severity of the pandemic might have

simultaneously influenced both parental attitudes and school reopening decisions. To account for this, the analysis merges in the prior seven-day average of recorded COVID-19 infections, hospitalizations, and deaths in the respondent's state, the smallest geographic unit for which identifiers are publicly available. Note that this uses the exact date on which each respondent completed the survey, so different respondents living in the same state may receive different values even in the same survey wave if they completed the survey on different days. As Model (2) shows, adding these public health controls leaves the main coefficient essentially unchanged.

Model (3) includes both a lead and a lag of the school reopening status. Since this effectively drops the earliest and latest waves of the survey, the total *N* is reduced by half. The results show that all the school status indicators—contemporaneous, from the previous survey wave, and from the next survey wave—are significantly and negatively correlated with preferences for fully remote learning. Interestingly, the largest coefficient is on the lead, indicating that respondents appear to be most responsive to an *upcoming* school reopening. Since reopening decisions are typically announced publicly several weeks before they occur, this suggests that parents change their preferences in response to these announcements (in addition to actual availability of reopening itself, which comes later).

Notes

1. *Education Week*, "The Coronavirus Spring: The Historic Closing of U.S. Schools (A Timeline)," July 1, 2020, https://www.edweek.org/leadership/the-coronavirus-spring-the-historic-closing-of-u-s-schools-a-timeline/2020/07.
2. Among the parent respondents, 16 percent were black, 23 percent were Hispanic, and 5 percent reported being members of another nonwhite racial or ethnic group, after applying the provided survey weights.
3. The survey consisted of seven overlapping waves. In Figures 1 and 2, respondents are grouped based on the day they completed each survey, even if different respondents did so during different survey waves.
4. Mackenzie Mays, "LA Teachers Union Slams California Schools Plan as 'Propagating Structural Racism,'" *Politico*, March 2, 2021, https://www.politico.com/states/california/story/2021/03/02/la-teachers-union-slams-state-plan-as-propagating-structural-racism-1366367.
5. Megan Bobrowsky and Jill Tucker, "Defying Union Leaders, Oakland Teachers Group Protests April Schools Reopening," *San Francisco Chronicle*, March 18, 2021, https://www.sfchronicle.com/education/article/Defying-union-leaders-Oakland-teachers-group-16034273.php.
6. Melinda D. Anderson, "Why Black Parents Aren't Joining the Push to Reopen Schools," *Mother Jones*, March 18, 2021, https://www.motherjones.com/politics/2021/03/why-black-parents-arent-joining-the-push-to-reopen-schools/.
7. Lavanya Sithanandam, "School Reopening in Montgomery County Is a Matter of Equity," *Washington Post*, March 11, 2021, https://www.washingtonpost.com/opinions/2021/03/11/school-reopening-montgomery-county-is-matter-equity/.
8. Unlike the surveys described below, this one did not ask whether respondents had kids of their own, so it is not possible to examine opinions of only parents.
9. The exact question wording changed across these two surveys—from asking about "how likely" one would be to send kids back to whether the respondent was "willing" to do so—making direct comparisons tricky.
10. Benjamin Mueller, "Coronavirus Killing Black Britons at Twice the Rate as Whites," *New York Times*, May 20, 2020, https://www.nytimes.com/2020/05/07/world/europe/coronavirus-uk-black-britons.html.
11. Miriam Jordan and Richard A. Oppel Jr., "For Latinos and Covid-19, Doctors Are Seeing an 'Alarming' Disparity," *New York Times*, June 26, 2020, https://www.nytimes.com/2020/05/07/us/coronavirus-latinos-disparity.html.
12. Cheyenne Haslett, "CDC Releases New Data as Debate Grows over Racial Disparities in Coronavirus Deaths," ABC News, April 8, 2020, https://abcnews.go.com/Politics/cdc-releases-data-debate-grows-racial-disparities-coronavirus/story?id=70041803.
13. Shikha Garg et al., "Hospitalization Rates and Characteristics of Patients Hospitalized with Laboratory-Confirmed Coronavirus Disease 2019—COVID-NET, 14 States, March 1–30, 2020," Centers for Disease Control and Prevention, April 17, 2020, https://www.cdc.gov/mmwr/volumes/69/wr/mm6915e3.htm.
14. Katie Thomas et al., "Top Science and Health Officials Offer Sobering View of Reopening Readiness," *New York Times*, May 22, 2020, https://www.nytimes.com/2020/05/12/health/coronavirus-fauci-testimony-reopen.html.
15. C-SPAN, "President Trump Meeting with Colorado and North Dakota Governors," May 13, 2020, https://www.c-span.org/video/?472078-1/president-trump-dr-fauci-wants-play-sides-equation.

16. Margaret Talev, "Axios-Ipsos Poll: Americans Fear Return to School," Axios, July 14, 2020, https://www.axios.com/axios-ipsos-coronavirus-index-poll-parents-schools-risk-ccf95453-9f99-4e3a-a4cc-eb0188bf6da3.html.

17. Inside Nova, "Child-Sized Coffins in Prince William Teachers' Protest Caravan Spark Outrage," November 9, 2020, https://www.insidenova.com/headlines/child-sized-coffins-in-prince-william-teachers-protest-caravan-spark-outrage/article_3ceeef7c-0986-11eb-9e3d-bbb4f4044b3a.html.

18. Kirsten Borman Dougherty (@kborman), "Alexandria School Board member Margaret Lorber tonight, when presented with stories of many students struggling with virtual learning tonight said, (and this is verbatim): 'Do you want your child to be alive or do you want your child to be educated?,'" Twitter, January 7, 2021, 7:35 p.m., https://twitter.com/kborman/status/1347552671306231809.

19. Jon Valant, "School Reopening Plans Linked to Politics Rather Than Public Health," Brookings Institution, July 29, 2020, https://www.brookings.edu/blog/brown-center-chalkboard/2020/07/29/school-reopening-plans-linked-to-politics,-rather-than-public-health/; and Michael T. Hartney and Leslie K. Finger, "Politics, Markets, and Pandemics: Public Education's Response to COVID-19" (working paper, Annenberg Institute at Brown University, Providence, RI, October 2020), https://www.edworkingpapers.com/sites/default/files/ai20-304.pdf.

20. Black and Hispanic parents were significantly more likely to report having a family member or close friend who was hospitalized or died from COVID-19. They were also modestly more likely to worry about becoming infected in the near future and estimated a higher risk of a severe outcome if infected. However, noted above, these differences in personal experiences and subjective risk perceptions did not appear to explain much of the variation in attitudes toward in-person learning.

21. Unfortunately, the University of Southern California sample includes too few respondents from these other racial groups to make further disaggregation feasible or useful.

22. Jon Green et al., "Identifying and Measuring Conditional Policy Preferences: The Case of Opening Schools During a Pandemic" (working paper, OSF Preprints, December 15, 2020), https://osf.io/zsh8u/.

23. Vladimir Kogan and Stéphane Lavertu, "Covid and Student Achievement: Early Evidence from Ohio's Fall Tests," *Education Next* 21, no. 2 (Spring 2021), https://www.educationnext.org/covid-student-achievement-early-evidence-from-ohios-fall-tests/; and John P. Bailey, *Is It Safe to Reopen Schools?*, Center on Reinventing Public Education, March 2021, https://www.crpe.org/publications/it-safe-reopen-schools.

24. Formally, Table A2 uses estimates following the model: $Y_{it} = \alpha_i + \beta * School\ Open_{it} + \gamma_t + \epsilon_{it}$, where Y is equal to 1 if a respondent reports preferring remote-only learning for his or her child and zero otherwise and subscripts i and t index respondents and survey waves, respectively.

25. The results are not sensitive to this coding rule. Using a simple dichotomous measure for whether any in-person learning is being offered at all or the raw numerical percentage reported by the respondent does not qualitatively affect any of the findings.