REACH

National Center for Research on Education Access and Choice

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Overview

The public education landscape has changed dramatically since the start of the COVID-19 pandemic. Communities and school systems throughout the country have faced unimaginable consequences from this public health crisis and the disruption to K-12 public schools. The pandemic's disproportionate impact on low-income communities of color, along with growing national awareness around racial injustice, have heightened concerns about inequity and spurred well-publicized and politicized debates around how schools should respond to these challenges.

Yet parents' perspectives are often missing from debates on these issues. This report examines how parents experienced school and school system responses to the pandemic and heightened attention to racial injustice. We also explore how the pandemic has changed parents' attitudes and preferences related to school choice. Using online opt-in survey data from 3,654 parents across five states (Colorado, Florida, Louisiana, Michigan, and Oregon) during spring 2021, we draw six core findings:

1. Parents on average were generally satisfied with their schools during COVID-19, with some groups of parents expressing particularly high levels of satisfaction: parents in private schools, those with higher incomes, those with kids learning in person, and those residing in Florida.
2. Yet, many parents felt their child was receiving *less* instruction than they would in a typical year.
3. A majority of parents wanted to see an emphasis on race, equity, and diversity in the school curriculum.
4. Many parents were considering remote schooling options for the coming year (2021-22).

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5. When considering where to enroll their child, parents reported that health and safety protocols, a caring environment, and social-emotional learning increased in importance since the start of the pandemic.

6. Lower income parents, Black parents, and to a lesser extent, Latinx parents were more likely to indicate concerns about their children's education relative to other groups.

Background

The past year ushered in unimaginable changes to public education due to the COVID-19 public health crisis. The disproportionate impact of the pandemic on low-income communities of color along with growing national awareness around racial injustice heightened concerns around inequity and spurred well-publicized and politicized debates around school responses.

> *"This past year expanded 'choices' for many parents: whether to send their child to school in person and/or online, or in some cases, to a learning 'pod' or 'hub.' In fact, the nature of school choice has taken on a whole new meaning."*

Parents experienced a set of difficult decisions during this period. For decades, many parents have made choices about where to send their kids to school. Some had options to send their children to private schools or move to areas with schools they preferred. Others had alternative public school options, such as sending a child to a magnet or charter school, applying for inter- or intra-district transfers, or homeschooling. This past year expanded "choices" for many parents: whether to send their child to school in person and/or online, or in some cases, to a learning "pod" or "hub." In fact, the nature of school choice has taken on a whole new meaning.

Despite these consequential shifts, it is not clear what is driving parents' decisions, how they have experienced these choices and the education their children have received, and whether these views differ by state, by school type, or parent demographics. This survey sought to address these issues, asking:

- How satisfied were parents with their children's education during COVID-19?
- According to parents, how did the amount of learning time change during COVID-19?
- What were parent perceptions regarding schools' efforts to address racism?
- What types of schooling were parents planning to choose in fall 2021?
- What mattered most to parents when choosing particular school modes (in-person, remote, hybrid) and schools generally post pandemic?

To answer these questions, we draw on data from an opt-in online survey administered in five states (Colorado, Florida, Louisiana, Michigan, and Oregon) from February 18, 2021, to April 13, 2021, a period of time when COVID-19 rates were still high in many places, vaccination rates were low, and many school systems were still operating without in-person instruction.

Why These States?

To date, most parent surveys have been conducted either nationally or in individual states or cities (see online appendix for full list). Given the influence of state policy and politics on education, we believe it is important to understand the views of parents within and across their specific contexts. Parents in states with many school choice options and a strong "choice" culture may approach educational decisions differently than parents in states where the norm is to attend one's local public school or where there are limited options. Different partisan politics and COVID-19 infection rates may also shape the views of parents across states.

All five states in our study have charter school and inter-district open enrollment policies allowing students to enroll in public schools outside of the district in which they live (in 2019, Oregon's open enrollment statute was not renewed, but remained in effect for many parents opting in prior to that date). Florida and Louisiana also have private school choice policies, such as school vouchers and tax credits that fund students to attend private schools. Michigan and Florida have some of the oldest charter and private school choice programs in the country. Oregon adopted choice policies later than the other states and has experienced a growing number of charter schools, particularly virtual charters, making it more representative of the country as whole.

The political context also varies across these states. Colorado and Oregon have Democratic-controlled legislatures and governors, while Republicans control both the legislature and governorship in Florida. In contrast, Louisiana and Michigan each have a Democratic governor and Republican-controlled legislature. The different politics in each state influence state-level decisions around school opening and reopening. Florida was the first state among the five that required in-person schooling options in all public schools in fall 2020, which was followed by mandates for hybrid and in-person instruction in Oregon in the end of March 2020. The remaining states left the decision up to local districts.

> *"The different politics in each state influence state-level decisions around school opening and reopening."*

Data and Methods

We partnered with CloudResearch to administer an online opt-in survey to the parents/guardians of school-aged children across five states: Colorado, Florida, Louisiana, Michigan, and Oregon. This report represents the views of 3,654 parents. We asked questions about topics including school choice and preferences during the COVID-19 pandemic, choice of school modality during the COVID-19 pandemic, access to instruction, school responses to the calls for racial justice after the killing of George Floyd, and support for policy proposals for recovery from COVID-19 (See link to full survey instrument).

Addressing Data Limitations

Our online opt-in survey relies on convenience sampling of internet users who self-select into the sample. People who select into our sample may be systematically different from those who do not. Consequently, the responses that participants give to survey items may not be representative of all parents of school-age children in these states.

To improve the representativeness of the sample, we applied demographic quotas (by race/ethnicity, school type, income, and educational attainment) during data collection. We also used two sets of weights during our analyses for the results reported herein: 1) one for the state-by-state analyses, meant to improve representativeness of our sample in each state, and 2) one for a full sample analysis, meant to improve how representative our sample is of the overall parent population pooled across the five states (see appendix for detail). While weighting methods often improve the representativeness of online opt-in surveys, it is not possible to know how similar our estimates might be to the true population values (see appendix for further discussion).

For the majority of our reporting, we rely on summary statistics (averages and percentages) to provide a descriptive picture of educational experiences across our five states. To examine differences by parent subgroups we analyze a pooled sample from all five states (as we did not have large enough numbers of parents in all states to run these fine-grained comparisons within each state).

“For the majority of our reporting, we rely on summary statistics (averages and percentages) to provide a descriptive picture of educational experiences across our five states.”

For this report, we primarily focus on differences by school type (here we compare parents of children in “public” schools, which includes traditional public and charter schools, to those in “private” schools, which includes parochial and independent private schools), school mode (whether students are attending school in person, remote, or hybrid), race/ethnicity, income, school level (elementary versus secondary), and political party. To identify significant differences by subgroups, we rely on multiple regression models. In the figures presented, we indicate differences that are significant at least at the 0.05 level. See appendix for more details.

For school type, the comparisons do not include parents who indicated their child was homeschooled because follow-up interviews indicated parents may have not fully understood how to report on this category. We also combined parochial and private school parents into one category, as we suspect some parents in parochial schools categorized themselves as private school parents. For these same reasons, we combined traditional public school and charter school parents into one category, as this was an area of confusion that emerged in follow-up interviews.

Finally, when possible, we compare some of our patterns and results to those of surveys fielded nationally with representative samples. Where we can make direct comparisons, our results reinforce the broad patterns of prior studies, giving us additional confidence in the validity of our findings.

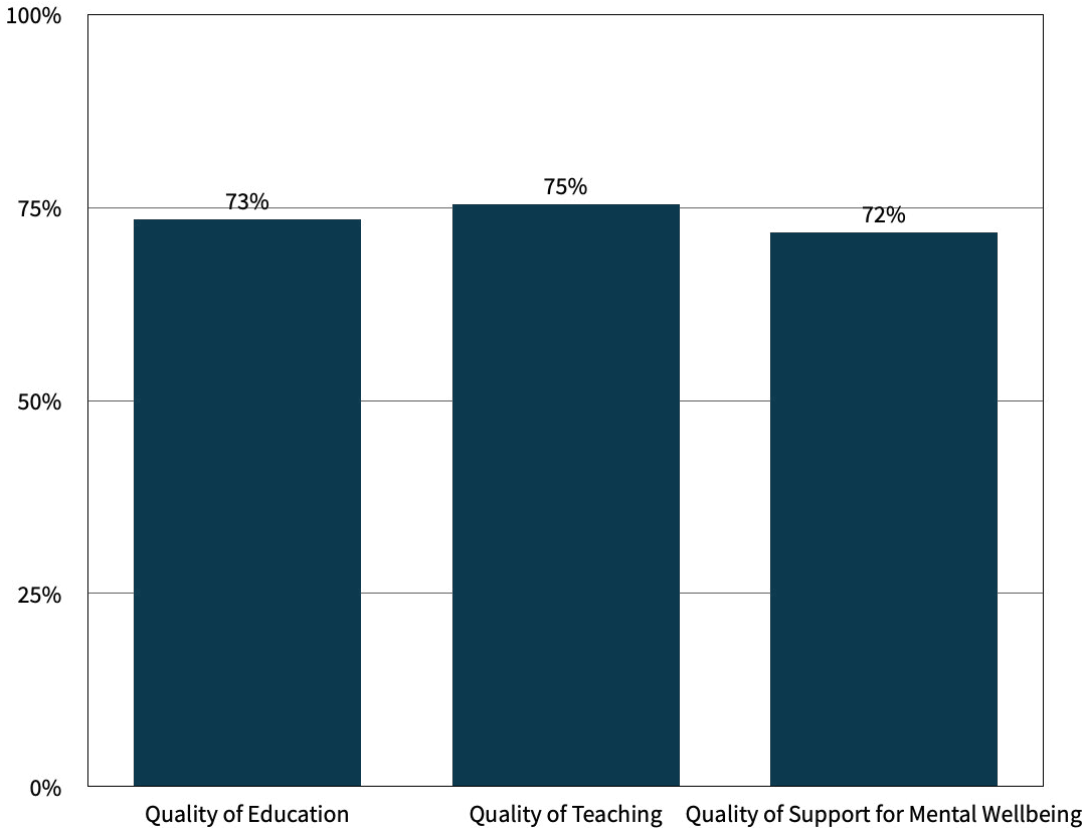
Our final analytic sample size across the five states was 3,654 (CO: n=686; FL: n=1,239; LA: n=463; MI: n=750; OR: n=516).

Findings

How satisfied were parents with their children’s education during COVID?

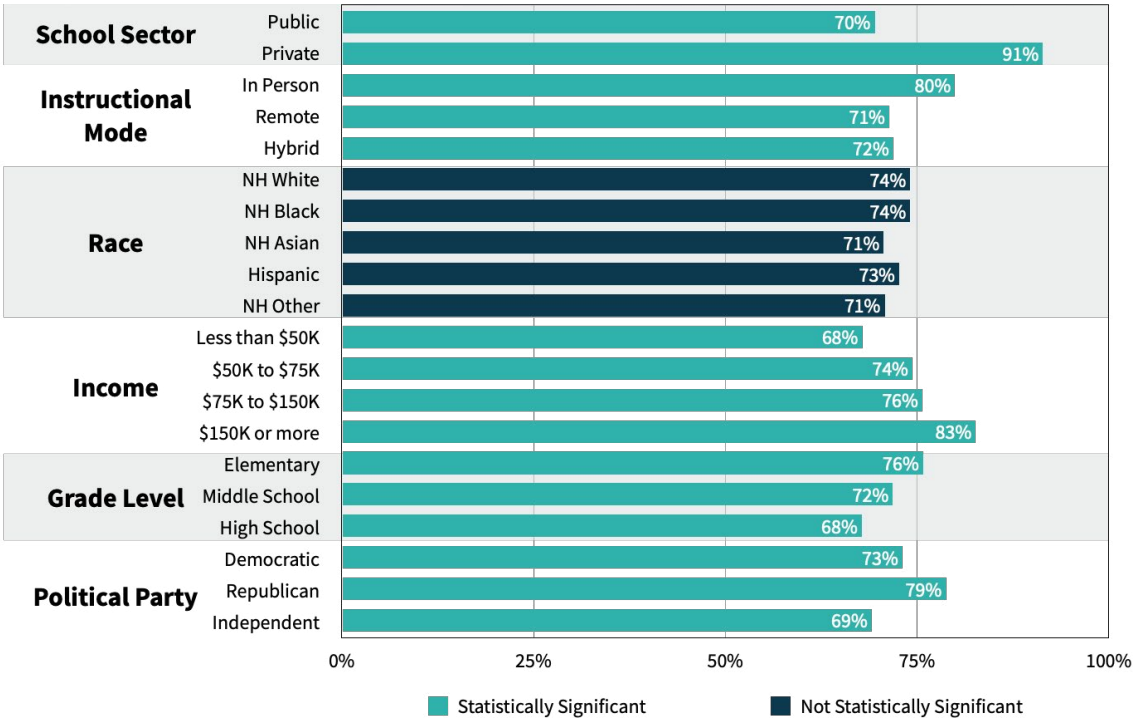
Overall, when we look at the average responses across the five states, the majority of parents reported being slightly, moderately, or extremely satisfied with 1) the overall educational experience that their child is receiving, 2) the quality of teaching and instruction, and 3) the quality of supports for their child’s mental wellbeing (Figure 1).

Figure 1. Parents' Satisfaction with Aspects of Their Child's Schooling During COVID-19 (Average Across Five States)
(Question 70)



When we examine satisfaction by subgroups, we find major differences. Parents of children in private schools reported higher satisfaction with their child's schooling relative to parents of children in public schools, as did parents with children attending school in person relative to parents with children attending school remotely or hybrid. Higher income parents also reported higher satisfaction relative to lower income parents, and the parents of elementary school students reported higher satisfaction relative to parents of high school and middle school students. Figure 2 illustrates these differences in response to the overall educational experience of their child. Other surveys, such as the Ed Next survey, which was conducted prior to our survey in November and December of 2020 also found variation in satisfaction by school mode (e.g., in-person vs. remote learning). However, that analysis reported larger differences than those we found.

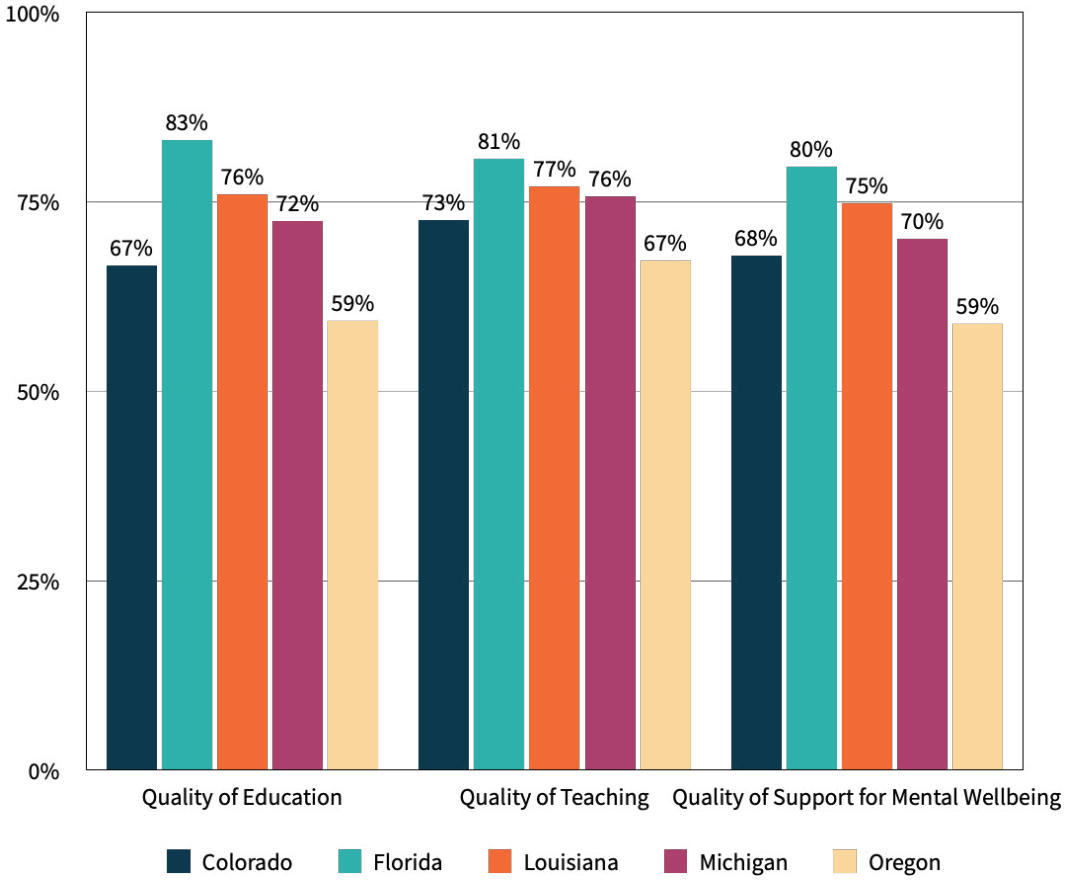
Figure 2. Parents' Satisfaction with the Overall Educational Experience That Their Child Received During COVID-19, by Subgroup
(Question 70)



Notes: NH = Non-Hispanic. Using regression analyses, we tested whether each group's reported satisfaction was statistically different than the others (e.g., whether parents of public schools responded differently than parents of private school students). See additional details in the online appendix. Statistical significance is at the $p<0.05$ level.

While satisfaction was generally high in each of the five states studied, relative to one another, parents in Oregon reported the lowest satisfaction and parents in Florida reported the highest satisfaction (Figure 3).

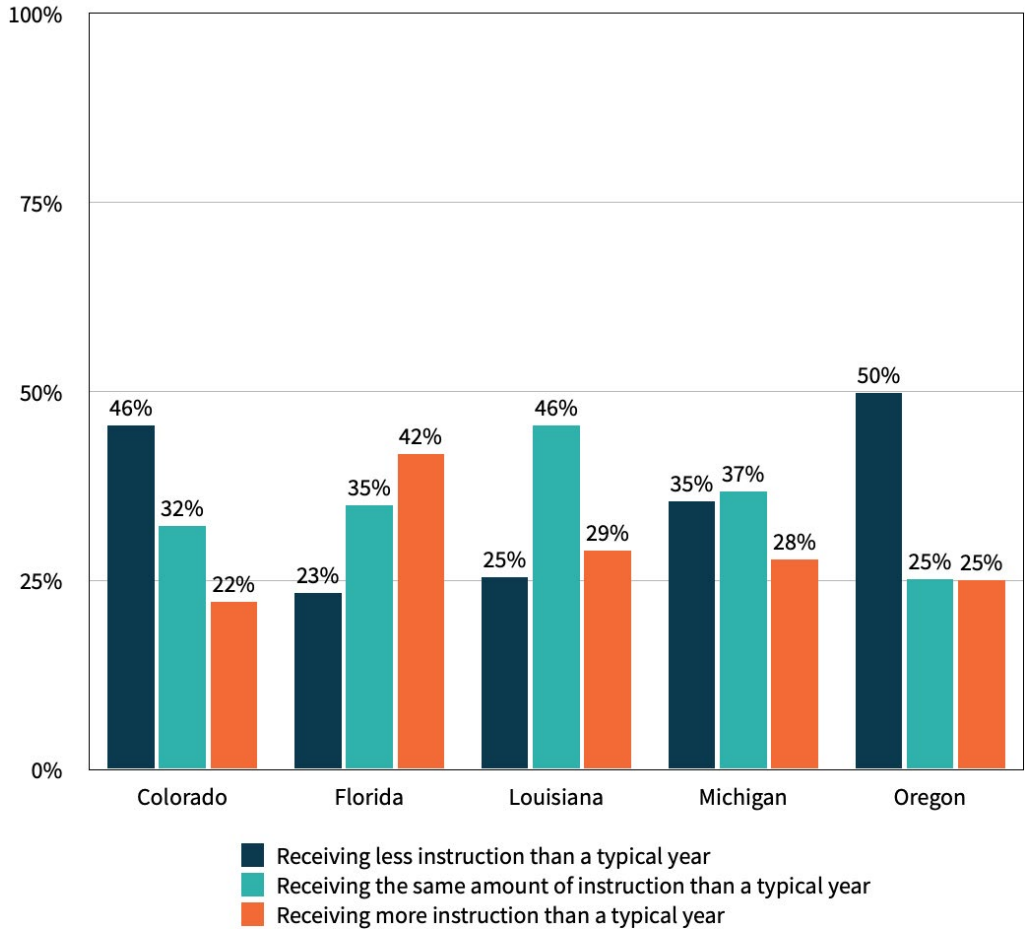
Figure 3. Parents' Satisfaction with Aspects of Their Child's Schooling During COVID-19, by State (Question 70)



According to parents, how did the amount of learning time change during COVID?

Large shares of parents in Oregon (50%), Colorado (45%), and Michigan (35%) felt that their child was receiving *less* instruction than they would in a typical year (Figure 4). About one quarter of parents across states felt that their child was receiving *more* instruction than they would in a typical year, except in Florida where 43% of parents felt that their child was receiving more instruction than they would in a typical school year.

Figure 4. Amount of Instruction Students Received During COVID-19 Compared to a Typical Year, by State
(Question 68)



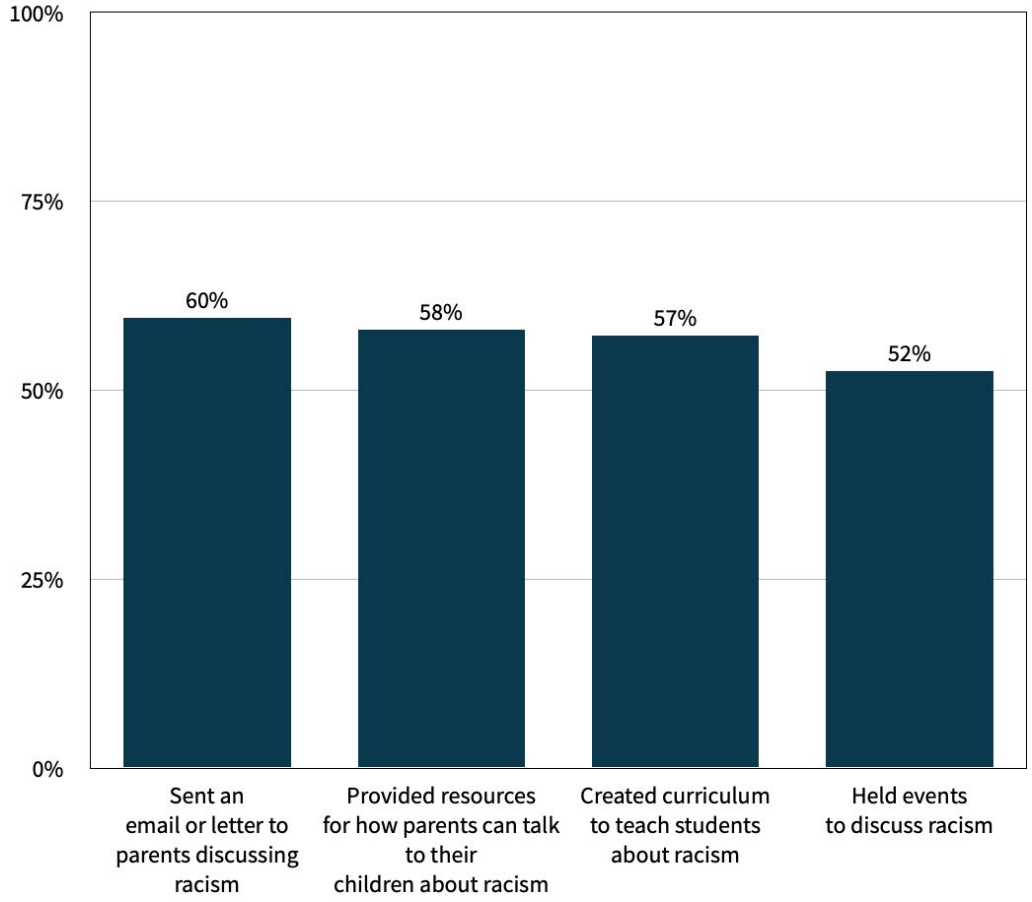
To better understand these trends, we look more closely at the share of parents who felt that their child was receiving *less* instruction relative to a typical year by subgroups. We find differences by school type, school modality, and race:

- Parents of children who were enrolled in public schools (38%) were more likely to report that their child was learning less than they would in a typical school year, compared to parents of children who were enrolled in private schools (16%).
- Parents whose children were attending school remotely (38%) or hybrid (36%) were more likely to say that their children were receiving less instruction relative to parents of children attending school in person (24%).
- Black parents were less likely (25%) to report their children were receiving less instruction than Hispanic (34%), White (35%) and Asian (36%) parents.

What were parents' perceptions regarding schools' efforts to address racism?

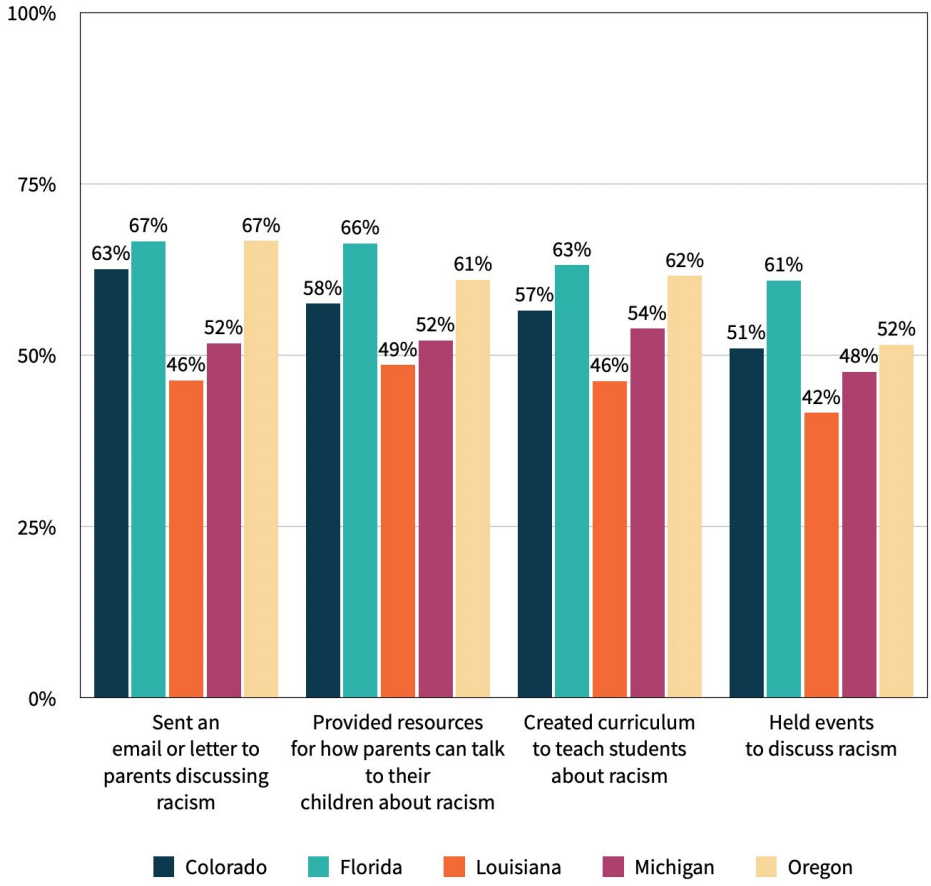
On average across the five states, 57% of parents reported that their school or school system had taken actions to address racism after the George Floyd protests (Figure 5). Sending an email or letter home discussing racism was the most commonly reported action, followed by providing resources for how parents could talk to their children, then creating curriculum, and less so, holding events to discuss racism.

Figure 5. Share of Parents Who Reported Schools Took Actions to Address Racism, Bias, Equity, or Inclusion Following the George Floyd Protests (Average Across Five States)
(Question 54)



Overall, Florida had the highest shares of parents who reported that their schools or school systems had taken these actions, and Louisiana had the lowest shares (Figure 6).

Figure 6. Share of Parents Who Reported Schools Took Actions to Address Racism, Bias, Equity, or Inclusion Following the George Floyd Protests, by State (Question 54)



We also asked whether parents *wanted* schools to take these actions (Figure 7). Here, we look more closely at the percent of parents who wanted schools to create a curriculum by subgroups. We find:

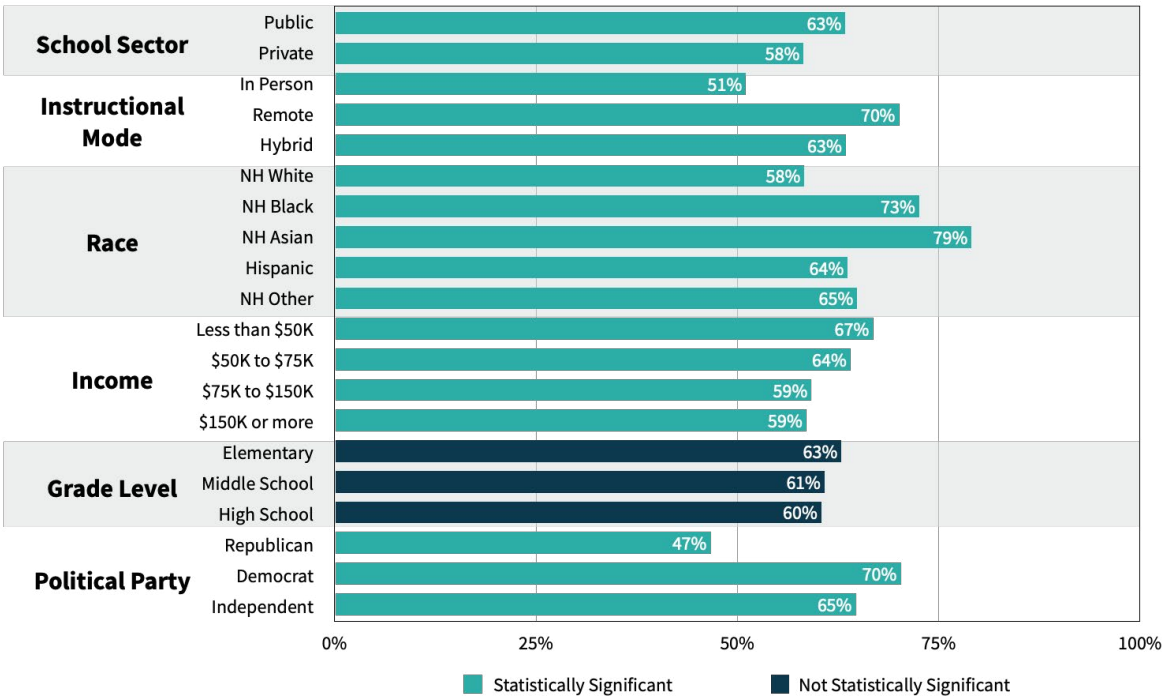
- A majority of parents across racial subgroups wanted schools to create a curriculum to teach about racism, bias, equity, and inclusion. Higher shares of Black (73%) and Asian (79%) parents wanted this curriculum, relative to Hispanic (64%) and White (58%) parents.

- Lower income families were more likely to report wanting schools to create this curriculum relative to higher income families (e.g., 67% of parents earning less than $50,000 a year versus 59% of parents earning $150,000 a year or more).

- Democrats (70%) and Independents (65%) were more likely to report wanting schools to create this type of curriculum relative to Republicans (47%).

These results are similar to other recent surveys, including a state-representative survey in California in which 72% of parents believed that schools should spend more time "teaching grade-appropriate lessons about the causes and consequences of racism and inequality."

Figure 7. Percent of Parents Who Wanted Schools to Create Curriculum to Teach About Racism, Bias, and Inclusion Following the George Floyd Protests (Average Across Five States)
(Question 54)



Notes: NH = Non-Hispanic. Using regression analyses, we tested whether each group's reported satisfaction was statistically different than the others (e.g., whether parents of public schools responded differently than parents of private school students). See additional details in the online appendix. Statistical significance is at the $p<0.05$ level.

When asked overall about the quality of their school's/school system's response to the protests, Black parents on average gave lower ratings: 52% rated the response as "good" or "excellent" compared to 71% of Hispanic parents, 69% of Asian parents, and 65% of White parents.

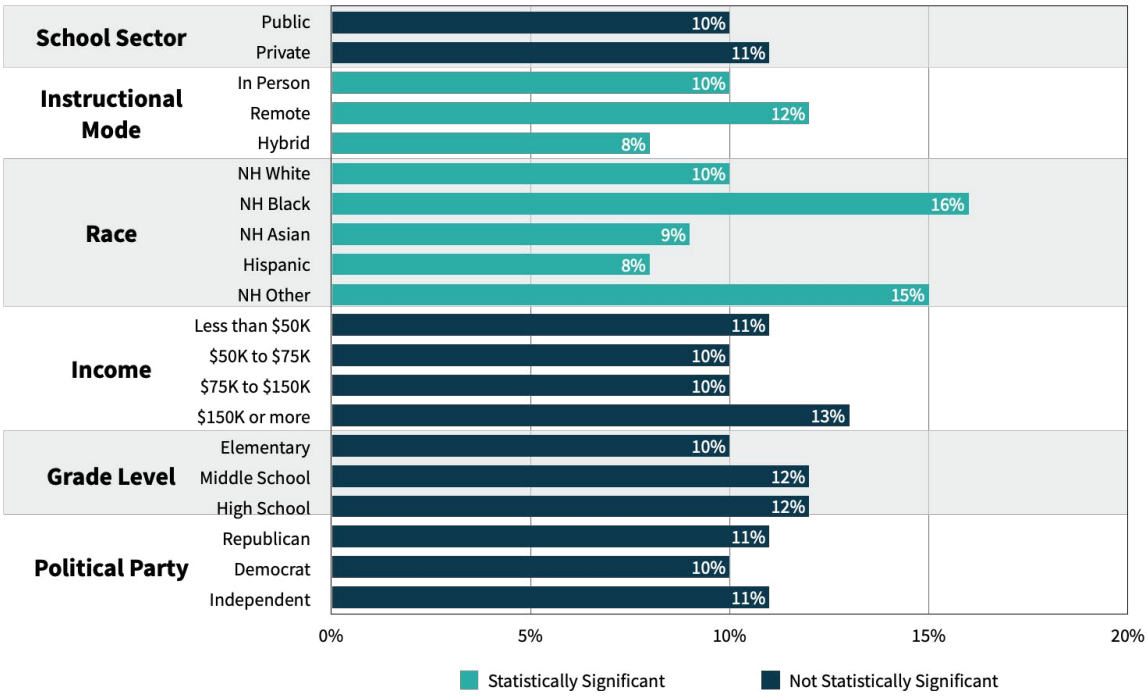
What types of schooling were parents planning to choose in fall 2021?

We asked parents to consider, assuming that it is safe to send their child to school next year, how likely they were to keep their child where they were currently enrolled (Figure 8).

The vast majority of parents expressed plans to keep their child in the same school. There were, however, some differences in parents' likelihood of staying at their current school based on school mode and by race:

- Parents of children learning remotely were more likely to be considering switching schools for next year, compared to parents of children learning in person or in a hybrid format.
- Black parents were more likely to be considering another school for next year than were White, Asian, and Hispanic parents.

Figure 8. Percent of Parents Extremely or Somewhat Unlikely to Enroll Their Child in the Same School Next Year, by Demographics (Average Across Five States) (Question 38)

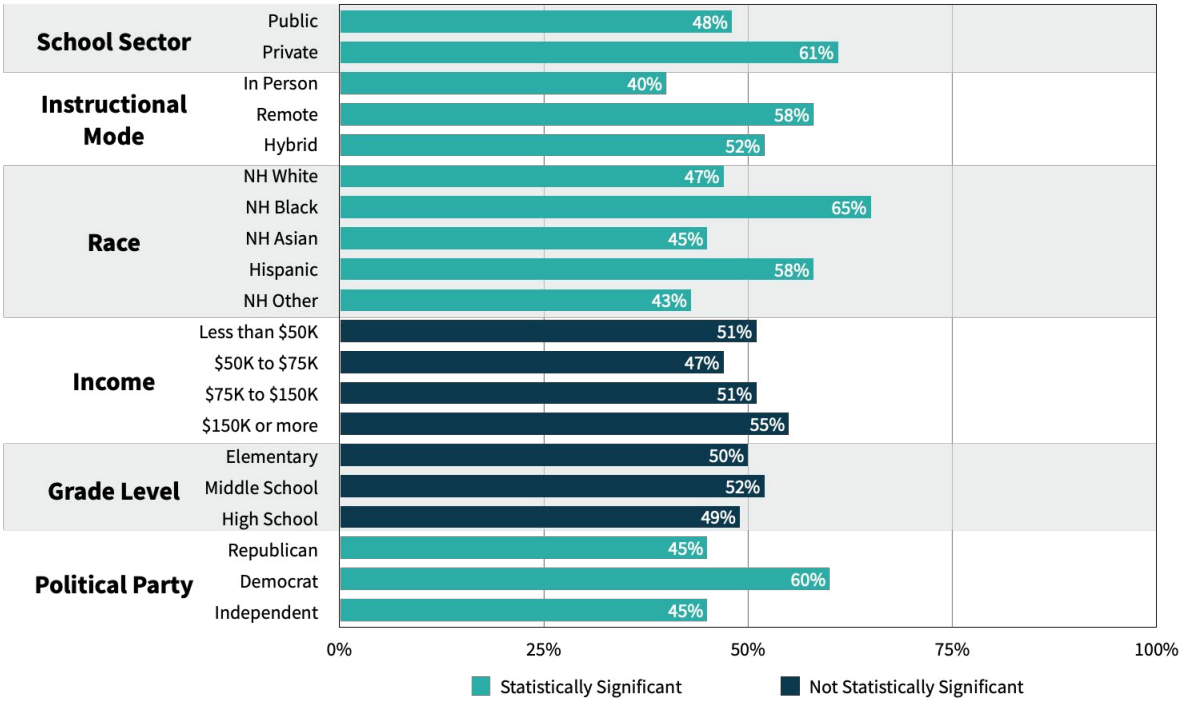


Notes: NH = Non-Hispanic. Using regression analyses, we tested whether each group's reported satisfaction was statistically different than the others (e.g., whether parents of public schools responded differently than parents of private school students). See additional details in the online appendix. Statistical significance is at the $p<0.05$ level.

We also asked parents if remote or virtual learning were offered as a permanent option, how likely they would be to choose to send their child to school remotely for the 2021-22 school year. **Close to half of parents indicated that they were somewhat or extremely likely to choose remote learning** as an option: 38% in Colorado, 60% in Florida, 48% in Louisiana, 47% in Michigan, and 43% in Oregon.

Here, too, we find differences in parents' likelihood of choosing remote schooling for next year based on school type and race. As Figure 9 indicates, parents of children enrolled in private schools were more likely to consider a remote option, as were Black and Hispanic parents. When interpreting responses to this question we should also keep in mind that these data come from a period of time when the spread of the virus was still high in many places, vaccination rates were low, and many school systems were still operating without in-person instruction. Nevertheless, even more recent studies find similar racial patterns in preferences for remote instruction (see appendix for details on national surveys).

Figure 9. Percent of Parents Extremely or Somewhat Likely to Select Remote Learning for Next School Year, by School Type, Demographics, and Political Party (Average Across Five States) (Question 40)



Notes: NH = Non-Hispanic. Using regression analyses, we tested whether each group's reported satisfaction was statistically different than the others (e.g., whether parents of public schools responded differently than parents of private school students). See additional details in the online appendix. Statistical significance is at the $p<0.05$ level.

What mattered most to parents when choosing particular school modes (in-person, remote, hybrid) and schools generally post pandemic?

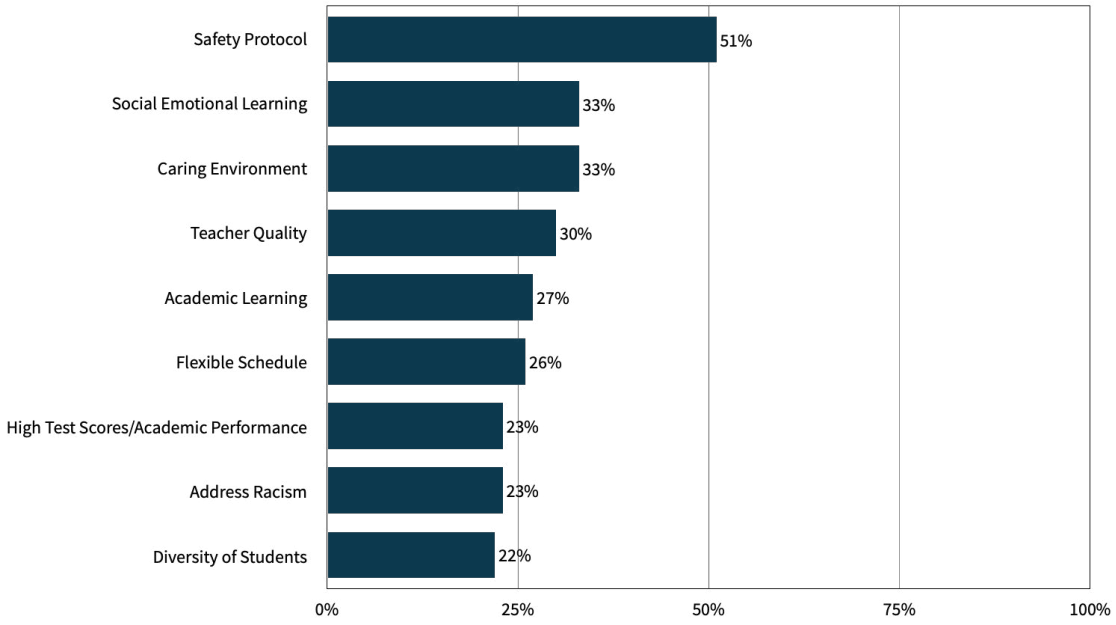
Given the choices facing most parents regarding how their child received instruction during COVID-19 (modality choices of in-person, remote, or hybrid), we wanted to understand the factors playing into these decisions. Of the parents who indicated that they had a choice of school mode at any point during this school year, we asked parents to rate the importance of 10 factors that may have influenced this decision (see question 42). While the order of importance varied slightly across states, parents in all five states cited their child's academic development, their social and/or emotional development or mental health, and the physical health of their child and/or other members of their household as the three top reasons influencing their choice of modality.

We also asked parents to rank the importance of various school attributes they consider when enrolling their child in a school. Across all five states, parents ranked "has quality teachers" as the most important attribute, followed by "will help my child learn important academic skills." In third place, parents in Florida and Louisiana chose "has

strong health and safety protocol" and parents in Colorado, Michigan, and Oregon chose "has a caring, supportive school or classroom environment."

When we asked about the extent to which the importance of each attribute had changed since COVID-19 (Figure 10), the greatest percentage of parents on average across the states responded that whether the school "has strong health and safety protocols" was more important now. Following that, schools that "have a caring, supportive school or classroom environment," and that "will help my child learn emotional or other non-academic skills" increased in importance among the largest percentage of parents in each state since the start of COVID-19. While not depicted here, a comparison by state indicated that in Florida, parents cited teacher quality as more important to them post-pandemic instead of socio-emotional learning like parents in other states.

Figure 10. School Attributes that Have Increased the Most in Importance to Parents' Enrollment Decisions Since COVID-19 (Average Across Five States)
(Question 43)



Conclusion

The results of this opt-in online survey provide a snapshot of parent opinion at a consequential moment in 2021, a time when they were able to reflect on the quality of education experienced by their children during the 2020-21 school year and were likely in the process of making decisions about their child's education for the following school year.

Once again, our data are limited because people who opt in to the online survey may be systematically different from those who do not, and the responses we collected may not be representative of the broader population of interest. While we took steps to increase the representativeness of our sample, including using sampling quotas and post-stratification weights, limitations may remain. However, the fact that several of our key findings align with other, nationally representative surveys provides some indication that our sampling and weighting approach helped to address some of the problems inherent in opt-in online surveys.

What do these results mean for policy, practice, and future research? We conclude with a discussion of four key takeaways/issues:

1. **New values and preferences expressed by parents**. Parents were fairly consistent across the five states surveyed that they care about non-academic supports and are thinking seriously about remote schooling. These findings align with national surveys and are perhaps not surprising given widespread concerns and media attention about mental health and wellbeing of children during COVID-19 and the amount of uncertainty around the pandemic at the time of the data collection. They nonetheless raise an important question: *How will schools and school systems accommodate these new values and preferences?* New federal American Rescue Plan funds will greatly enable investments in **social emotional supports** in the short term. If policymakers and education leaders want these supports to affect student outcomes, then they should consider how to ensure and hold schools accountable for the quality and sustainability of these supports as well as outcomes for all students. District leaders appeared to be hearing parent requests for **remote options**: a RAND survey indicated that 20% of districts planned to offer a virtual option in 2021-22, even if schools are open in-person. New choices around school *modality* will require ongoing investments in information and outreach, so that parents can make informed choices. They may also require complicated district-level resource decisions —such as who teaches in remote programs—and may result in unintended consequences for in-person schooling, which should be monitored carefully.

2. **State-level differences in parent satisfaction with their schools during COVID-19**. Overall, Florida parents were generally more positive about their children's schooling this year, whereas parents in Oregon indicated the lowest levels of satisfaction. *What explains these differences?* One possible explanation pertains to the length of time schools have been open in-person. A March 2021 survey from the Institute of Education Sciences indicated that 90% of Florida schools serving the 4th grade offered full-time in-person instruction to students compared to 9% in Oregon. Thus, Oregon parents were responding to our survey during a year in which their children spent more time learning remotely and they may have been frustrated by the lack of in-person options. We know from our survey, for example, that parents with children learning online were more likely to report receiving less instruction and lower levels of satisfaction. But is there more going on in the state policy context that explains these differences? Our ongoing research seeks to answer this question.

3. **Different views of parents with children in private versus public schools**. Private school parents rated the quality of the education and the amount of instruction this year to be higher than public school parents did. Note these differences are still significant after controlling for school mode, which means these differences relate to school type, not whether students were receiving more in-person instruction in private schools.

   What explains these differences? We posit five possibilities:

   - Private schools had more flexibility to respond to parents' needs due to small size and/or not being subject to state policies restricting actions.
   - Smaller class sizes prior to the pandemic made it easier to meet social distancing guidelines.
   - Because many of these parents were paying tuition, they may have felt a greater sense of loyalty and investment in their school community. (This possibility is consistent with prior research.)
   - Parents felt that they had greater influence over decisions made during the pandemic and that these schools are more responsive to their needs. This idea is supported by pre-pandemic research and some of

our data (e.g., we found that 74% of private school parents said their schools asked for their input during COVID-19 compared to 59% of public school parents).

- Parents were more satisfied because they were surrounded by like-minded families, as prior research has found that private schools tend to draw economically and racially similar families. While these are possibilities, we cannot know for certain without additional research.

Future studies might also examine whether these differences translate to better student outcomes or less "learning loss" and what the experiences were for lower income students or students with disabilities participating in private school voucher programs in Florida and Louisiana.

4. **Different experiences of lower income parents and Black and Hispanic parents**. These findings raise important concerns and questions:

   - **Quality of education**. Lower income parents were far less satisfied with the quality of education their children received, and Black parents were much more likely to be considering another school for their children next year compared to other groups. These findings make sense given the racially and socio-economically segregated nature of U.S. schools before the pandemic and the fact that physical and mental health risks were disproportionately affecting schools serving lower income students of color and those schools' ability to respond and support students and families.

   - **Interest in remote options**. Findings that Black and Hispanic parents were more likely to be considering remote options are consistent with other national data. We also know these communities have been disproportionately impacted by the pandemic: Latinx and Black people are about twice as likely to die from the virus and three times as likely to be hospitalized with it. These higher risks may help explain why such parents were more likely to be considering seemingly safer, online options for next year. In fact, although not reported above, Black and Hispanic parents responding to our survey were significantly more likely to report worrying that sending their child to in-person learning would put them at risk of catching COVID-19 and that their child would bring the virus home to their family. Schools also have a long history of disproportionate surveillance and disciplinary actions for students of color, which some evidence suggests has continued during the pandemic. In fact, some Black parents report choosing remote instruction due to concerns about bullying, racism, and low academic standards for Black students during in-person schooling.

     If these racialized differences persist in parent enrollment choices in the 2021-22 school year, policymakers and researchers should closely monitor the quality of instruction and outcomes for students in remote schooling and consider if these differences affect—positively or negatively—long-standing racial opportunity and outcome "gaps."

   - **Curricular focus on racism**. While about half of parents in each state reported that their schools were using curriculum to teach about racism, far more Black and Asian parents wanted this to be occurring, a finding likely related to long-standing and increasing incidents of anti-Black and anti-Asian hate crimes, racism and bias in the United States. Black parents also were less satisfied with their schools' overall response to the protests following George Floyd's death. These findings are particularly relevant during a time when several states have passed or are proposing legislation to curtail teaching about racism

and racial injustice in schools. Indeed, as we reported, a majority of parents in our survey, across racial subgroups, wanted schools to create a curriculum to teach about racism, bias, equity and inclusion. In the coming years, it will be important to consider how these views affect policymaker choices.

We hope these parent voices—along with views of teachers and administrators—can inform policymakers and district leaders as they continue to grapple with the ongoing disruptions to schooling.

How Does This Relate To Other REACH Research?

This study contributes to REACH's suite of papers focused on how the COVID-19 pandemic has affected the educational landscape nationwide.

In July 2021, REACH released a study examining how a wide variety of community and school district characteristics may have affected the likelihood of schools reopening in a national analysis of data from fall 2020 and spring 2021.

Prior to that, REACH released a study in January 2021 in which a key finding highlighted that it appeared safe to reopen schools in counties where there were fewer than 36-44 new COVID-19 county hospitalizations per 100,000 people per week. A separate study in July 2020 was one of the largest and most comprehensive studies to date on what various school types across America did to provide students equitable access and resources for continued support, learning, and development during the pandemic, an effort that pooled a representative sample of 3,511 schools.

In forthcoming studies, the REACH team will examine whether students are changing schools due to COVID and the role that transportation may play in these decisions.

About the National Center for Research on Education Access and Choice (REACH)

Founded in 2018, REACH provides objective, rigorous, and applicable research that informs and improves school choice policy design and implementation, to increase opportunities and outcomes for disadvantaged students. REACH is housed at Tulane University with an Executive Committee that includes researchers from Tulane, Michigan State University, Syracuse University, and the University of Southern California.

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Online Appendix

Methodology Notes

Other National Surveys. In developing our survey and analyzing the results, we looked to several national surveys, including the RAND Parent Survey, Parents Union Poll, NPR Parent Poll, and EdNext Parent Survey. Some example regional surveys include: USC Los Angeles Parent Survey and a PACE poll in California.

> **Relevant to our findings on racial patterns in preferences for remote instruction**: A nationally representative parent survey from USC Dornsife's Understanding America Study (UAS) conducted between mid-April and end of May 2021 also found that 43% of Black and 42% of Hispanic parents preferred their children learning remotely at that time, compared with 19% of White parents. Similarly, 38% of Black parents and 28% of Hispanic parents expressed that they were either keeping their children learning remotely in fall 2021 or unsure compared with 17% of White parents. Similarly, a RAND national survey of parents in May 2021 found that 28% of Black parents and 27% of Hispanic parents were either not planning to send or unsure about sending their children back to school in person, compared with 10% of White parents.

Sample. The five states in our sample (Colorado, Florida, Louisiana, Michigan, and Oregon) are part of a larger study affiliated with the National Center for Research on Education Access and Choice (REACH). As such, we did not include any states where choice is not a significant policy strategy. We have been studying school choice policies in these states for several years prior to the pandemic, which provides us with contextual knowledge to further interpret the results of this survey.

Survey Instrument and Administration. The opt-in online survey was designed to take approximately 20 minutes to complete. For the majority of the survey, parents were asked to respond to questions in reference to their youngest school-aged child (in grades K-12).

To obtain survey samples, we partnered with CloudResearch, which maintains an internet-based survey platform called Prime Panels. The CloudResearch Prime Panels platform is an aggregation of double opt-in participant panels, meaning that participants are recruited into the panel by navigating to a website and signing up to take surveys. Prime Panels offers a convenience sample; it does not offer access to participants recruited with probability-based sampling methods. In other words, these panels are not designed to provide representative polling at the national or state-level. People who volunteer for the panels are likely to differ systematically from people who do not volunteer. Consequently, the responses that participants give to survey items may not be representative of the broader population of interest.

To improve the representativeness of the sample gathered on Prime Panels, we applied demographic quotas (by race/ethnicity, school type, income, and educational attainment). The application of such quotas is known as purposive sampling, a technique common among researchers who use online panels. All targets and quotas were set to match the demographics of particular states. When we struggled to obtain adequate sample numbers, we relaxed our quotas and attempted to correct with sample weighing. Our opt-in online survey was only offered in English, and participants were able to respond on computers, tablets, or phones. All participants were compensated for their time, either through direct monetary compensation, donations to charities, or points that they can redeem for prizes. Ultimately, our sample consisted of 3,654 parents of school aged children across the five locales stated above. As described below, we also created post-stratification weights for use in our analyses.

Survey analysis and limitations. In survey research more generally, sample statistics provide unbiased estimates of the unknown population parameters when the condition of "strong ignorability" is met. Strong ignorability requires that (1) the mechanism through which respondents enter the sample is independent of the responses to survey items, either unconditionally or conditional on observed variables (i.e., there are no unobserved "confounders"), and (2) all members of the population have a non-zero probability of being included in the sample (Mercer et al., 2017).

When using survey data from an opt-in online panel, the extent to which sample statistics provide biased estimates of the unknown population parameters will depend on the extent to which the outcomes of interest are correlated with the variables that determine selection into the sample. In principle, if the sample includes all of the necessary kinds of respondents from the population of interest, and if all of the confounding variables that determine selection into the sample are known and measured, survey weighting procedures can de-bias sample estimates. If these requirements are not strictly met, survey weights may nevertheless decrease the expected difference between the sample estimates and the population parameters.

In this study, CloudResearch used raking, a common post-stratification method used in survey research to create weights (Cohen, 2008). The goal of raking is to create a set of weights such that the weighted marginal distributions of variables in the sample match the marginal distributions in the population. We use two sets of weights: one set designed for analyzing data separately by state, and one set designed for analyzing the pooled data across all states. Each weight type uses a different set of variables in weight-creation. The sample-level pooled weights rake on race, ethnicity, education level, income category, political party, school sector, and state; the state weights rake on the same variables (minus state) plus urbanicity. Because raking can sometimes yield high-variability weights that add noise to estimates, CloudResearch trims weights to reduce their variability. Weight-trimming is a common practice that trades off bias with sampling variability in an attempt to reduce the overall expected difference between sample estimates and the true population parameters.

In addition to the strong ignorability assumptions described above, raking on population marginal distributions relies on the assumption that the response probability in each raking cell equals the product of the response probabilities for the constituent row and column effects (Kalton & Flores-Cervantes, 2003). For example, in our case, the probability that a parent from the population who (a) has a bachelor's degree or higher and (b) sends their child to a private school, would be in the sample is assumed to equal the product of the probability that (a) a parent with a bachelor's degree or higher is in the sample, multiplied by (b) the probability that a parent who sends their child to private school is in the sample.

Other important caveats apply to our raked weights. First, the population marginal distributions to which the weights are calibrated do not strictly describe our population of interest. While our population of interest covers only parents with school-aged children (and for most items, these parents' responses about their youngest child), in most cases the distributions to which our weights are calibrated describe the full (state or pooled state) population with and without school-aged children (the distribution of school sector type, in contrast, describes the student-level distribution). Second, these weights are not calibrated for subgroup estimates (beyond the state-level estimates for which the state weights are designed). Subgroup estimates (e.g., item responses broken down by race/ethnicity or school sector) may therefore exhibit additional bias beyond the levels of bias exhibited in state- or pooled-analyses.

While the assumptions underlying the raking method are unlikely to be strictly met, it is difficult to know the extent to which the assumptions are violated or the extent to which our estimates may remain biased. In general, the extent to which any given set of raked weights reduces bias will depend in large part on whether researchers are able to weight for the most important confounding variables (Pew Research Center, 2018). When the source and direction of bias are unknown, it is even possible for weights to magnify bias (Mercer et al., 2017). For the present survey, the raking assumptions are difficult to assess given the unique nature of the topics under study and the unique circumstances of the COVID-19 pandemic.

Nevertheless, benchmarking studies conducted in other areas of survey research may provide a ballpark-sense of how much bias may remain in our estimates after weighting. Researchers at Pew Research (Pew Research Center, 2018) conducted a study in which they applied various weighting methods, with various sets of weighting variables, to data collected through online opt-in samples fielded by three different online survey vendors. The researchers compared the results (across a range of sample sizes) on 24 benchmark questions to results collected from high-quality federal surveys. Some of the comparison models weighted based on demographic variables only (age, sex, race and ethnicity, education, and region), and others weighted on demographics plus political variables (party, ideology, evangelical Christian, registered voter). The main finding was that having the right variables for weighting mattered more than which weighting method was used. Across the 24 survey items, the most effective adjustment strategy removed approximately 30% of the original estimated bias (from 8.4 percentage points unweighted to 6 percentage points weighted). Including the political variables in the weighting reduced estimated bias by an additional 1.4 percentage points, on average, relative to using only the demographic variables in the weights. The importance of including the political variables differed by survey topic. Another benchmarking study of online opt-in samples conducted by Pew found that average estimated bias on survey items was larger for Black (11.3 percentage points) and Hispanic (15.1 percentage points) respondents (Pew Research Center, 2016).

Appendix Table: Comparison of Weighted Sample and Population, by State

	Colorado		Florida		Louisiana		Michigan		Oregon	
	Weighted Sample	Population	Weighted Sample	Population	Weighted Sample	Population	Weighted Sample	Population	Weighted Sample	Population
Race										
White	69.96	67.90	57.59	53.50	70.04	58.60	72.99	74.90	77.12	75.30
Hispanic	15.96	21.70	21.28	26.10	4.06	5.20	4.72	5.20	9.76	13.30
Black	4.61	4.60	14.24	16.90	20.64	32.70	14.80	14.10	1.91	2.20
Asian	3.26	3.50	2.05	3.00	2.14	1.80	3.57	3.40	4.53	4.80
Other	6.22	2.00	4.51	0.00	3.12	2.00	3.92	2.00	6.38	4.00
Income Level										
below 50K	29.93	24.40	30.37	35.90	43.53	40.10	36.42	32.50	35.78	30.20
50K-75K	14.91	16.70	17.49	19.20	17.43	17.20	17.81	19.20	16.49	18.50
75K-150K	34.39	36.50	34.81	30.40	27.07	29.60	30.93	33.50	31.64	34.30
150K and above	20.78	22.40	17.33	14.50	11.97	13.20	14.84	14.90	16.08	17.00
Political Affiliation										
Republican	26.20	26.50	30.42	35.60	34.51	33.10	32.13	39.00	24.52	25.20
Democrat	36.39	29.60	44.96	36.20	35.26	40.30	45.63	45.00	39.68	35.40
Independent	32.63	39.00	21.57	26.40	26.27	-	16.28	-	27.70	32.60
Other	4.78	5.00	3.05	1.80	3.96	26.60	5.96	-	8.10	6.80
Education Attainment										
<High School	22.49	29.70	21.32	40.4	36.75	48.80	28.73	38.10	26.69	31.90
Some College	30.53	29.50	30.95	29.70	27.87	27.10	31.71	32.80	35.24	34.30
≥ Bachelor Degree	46.97	40.90	47.73	29.90	35.37	24.10	39.57	29.10	38.06	33.70
Sector										
TPS	74.44	82.00	58.99	80.00	57.41	77.00	65.66	84.00	75.02	87.00
Charter School	9.39	13.00	8.97	10.00	10.14	10.00	9.29	9.00	6.65	6.00
Private School	9.71	5.00	25.55	11.00	23.60	13.00	17.62	7.00	10.62	7.00
Other	6.46	-	6.48	-	8.85	-	22.2	-	7.7	-

To estimate item means across subgroups and to test for statistically significant variation across groups, we fit weighted least squares regression models (applying sampling weights described above). Specifically, in separate

models, we regressed a dichotomized version of each survey item of interest on a set of indicator variables defining the mutually exclusive groups for a demographic factor variable (e.g., a model with a set of indicator variables defining racial groups, another model with a set of indicator variables defining income categories, etc.). To determine whether average responses showed statistically significant variation across groups, we compared the p-value associated with the model F-statistic to an alpha level of .05. Throughout this brief, we report the predicted means for each group of interest from these models. For this report, we are primarily focused on differences by state, school mode, race/ethnicity, income, school level (elementary versus secondary), school type and political party.

For school type, the comparisons do not include parents indicating their child was homeschooled because follow-up interviews indicated parents may have not fully understood how to report on this category. We also combined parochial and private school parents into one category as we suspect some parents in parochial schools categorized themselves as private school parents. For these same reasons, we combined traditional public school and charter school parents into one category, as this was an area of confusion that emerged in follow-up interviews.

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