

Plans of US Parents Regarding School Attendance for Their Children in the Fall of 2020

A National Survey

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IMPORTANCE As schools consider reopening for in-person instruction prior to availability of a coronavirus disease 2019 (COVID-19) vaccine, families may be weighing their priorities regarding school attendance.

OBJECTIVE To characterize the association of planned in-person school attendance during the COVID-19 pandemic with factors, including family socioeconomic characteristics, and parent attitudes and beliefs about their child's school attendance.

DESIGN, SETTING, AND PARTICIPANTS Cross-sectional survey study. Data were collected from June 2, 2020, to June 5, 2020, weighted to reflect population norms, and analyzed using ordered probit regression. A sample of US parents (of children ages 5-17 years) were recruited using a nonprobability survey panel with stratification by socioeconomic characteristics.

MAIN OUTCOMES AND MEASURES The main outcome was parent-reported plan to send their child to school or keep their child home, conditional on their school opening for in-person instruction. Additional measures assessed family socioeconomic characteristics, medical vulnerability, worry about COVID-19 and multisystem inflammatory syndrome, confidence in their child's school, and homeschooling difficulties.

RESULTS The sample of 730 parents was balanced by parent sex (53% women) with successful oversampling for Black (28%; $n = 201$) and Hispanic (27%; $n = 200$) participants. In estimates weighted to US population norms, 31% (95% CI, 27% to 34%) of participants indicated they would probably or definitely keep their child home this fall, and 49% indicated that they would probably or definitely send their child to school this fall. Factors associated with planning to keep children home included lower income (38% with incomes <\$50 000 vs 21% with incomes \$100 000-\$150 000 per year; difference, 17%; 95% CI, 9% to 26%), being unemployed (40% unemployed vs 26% employed; difference, 14%; 95% CI, 5% to 25%), and having a flexible job (33% with flexible jobs vs 19% with inflexible jobs; difference, 14%; 95% CI, 5% to 30%). Planning to keep children home was also associated with fear of COVID-19 ($B = 0.19$; $P < .001$), fear of multisystem inflammatory syndrome ($B = 0.12$; $P = .04$), confidence in schools ($B = -0.22$; $P < .001$), and challenges of homeschooling ($B = -0.12$; $P = .01$). Race and ethnicity were not significantly associated with plans to keep children home.

CONCLUSIONS AND RELEVANCE In this survey study, many parents planned to keep children home in fall 2020. Schools need to act soon to address parental concerns and provide options for what will be available for them should they opt to keep their child home. Structural barriers, such as lack of workplace flexibility and potential school-level inequities in implementation of preventive measures, must be acknowledged and addressed where possible.

JAMA Pediatr. doi:10.1001/jamapediatrics.2020.3864
Published online August 14, 2020.

 Editorial

 Supplemental content

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State governments and school districts are grappling with how to safely, effectively, and equitably educate youths during the novel coronavirus disease (COVID-19) pandemic. Recent data suggest that school closures, along with other policies to encourage home isolation, have substantially slowed the spread of COVID-19.^{1,2} However, such closures have implications for children, parents, and society, including inadequate academic instruction,³ missed opportunities for developmentally important in-person experiences,⁴⁻⁶ parental stress,⁷ and compromised work productivity.⁸ Critically, these costs are likely to be disproportionately borne by the most socioeconomically disadvantaged families^{7,9-12} because they tend to have the least resources for remote learning (ie, access to computers and high-speed internet),^{11,13} the least support for home learning from their child's school,¹⁴ the least job flexibility,¹⁵ and the greatest risk of experiencing other stressors (eg, financial strain, racism, and neighborhood safety) that may compound parenting challenges.¹⁶

As schools consider reopening for in-person instruction prior to availability of a COVID-19 vaccine, families may be weighing their priorities regarding school attendance. This choice will look different for each family as schools will likely vary in the steps they take to mitigate viral transmission, home-based learning will be more difficult for some families than others, and parents will have different levels of worry about COVID-19 and the extremely rare multisystem inflammatory syndrome in children that has been associated with COVID-19.¹⁷ Critically, these attitudes and beliefs are likely patterned by family socioeconomic factors. Overcrowded and underfunded schools, more likely to be located in communities characterized by lower-income residents,¹⁸ may have more difficulty implementing social distancing and other recommended measures to limit viral transmission while maintaining developmentally appropriate instruction. Yet, families from these communities rely disproportionately on schools for meals and other resources (academic support and counseling) and opportunities (physical activity and extracurricular activities).¹⁹ Parents who lack the ability to work from home on a flexible schedule may believe that home-based learning would be more challenging; such job flexibility is more likely among more affluent and educated parents.²⁰ Families with higher COVID-19 mortality risk, particularly those who live with a medically vulnerable person, may be more worried about COVID-19; lower-income families are more likely to live in a multigenerational household²¹ and to have a family member with a chronic health condition.²²

In a demographically diverse sample of parents of school-aged children in the United States, this study aimed to (1) describe parents' plans for sending children back to school in fall 2020, (2) characterize the association of planned school enrollment with family socioeconomic characteristics, and (3) understand how parent attitudes and beliefs are associated with socioeconomic characteristics and plans for school attendance. Understanding what factors are associated with parent plans for school attendance can inform how those with a vested stake in this decision, including pediatricians and school districts, approach providing decision support to families.

Key Points

Question What do parents plan to do about school attendance in the fall of 2020, and what factors are influencing these plans?

Findings In this survey study of 730 US parents of school-aged children, 31% of parents indicated they will probably or definitely keep their child home this fall if schools open for in-person instruction. Factors associated with planning to keep children home were lower household income, not being employed, and whether those employed had a flexible and controllable work schedule.

Meaning Outreach to help families make decisions about school attendance should focus on addressing the concerns of families with low income.

Methods

Sample and Procedure

Participants were a demographically stratified convenience sample of 730 parents in the United States who have at least 1 child between the ages of 5 and 17 years. Recruitment was facilitated by Prime Panel,²³ an online survey recruitment platform that sources participants across multiple nonprobability survey panels applying investigator-determined eligibility criteria and demographic quotas. Consistent with American Association for Public Opinion Research reporting guidelines for survey recruitment using an opt-in nonprobability panel, the participation rate was not reported because the sampling frame was unknown.^{24,25} Participants accessed the survey online using their own computer or mobile device and received a small monetary incentive for completion. Individuals without computer or internet access were not eligible to participate. Black and Hispanic parents were oversampled relative to 2018 US Census demographic distributions. To meet sample size goals for Black and Hispanic parents, data collection was supplemented by nonprobability survey panel recruitment with increased compensation for Black and Hispanic parents. Race and ethnicity were measured because of emergent evidence and discourse about how due to systemic racism, Black and Hispanic families are being disproportionately negatively affected by COVID-19.²⁶⁻²⁸ Eligible participants completed an English-language anonymous online survey hosted on the Qualtrics platform, with data collection occurring June 2, 2020, through June 5, 2020. After providing information about family structure, parents with more than 1 child aged 5 to 17 years were instructed to answer questions with reference to the child whose birthday was coming up next. The questionnaire contained 36 questions (eAppendix in the [Supplement](#)), which were pilot tested in a convenience sample of parents recruited via Mechanical Turk (n = 200). Research activities were approved by the University of Washington and Seattle Children's Hospital institutional review boards, and a waiver for documentation of informed consent was granted; potential participants reviewed an information sheet describing the study.

Measures

Outcome

The primary outcome for the study was parent-reported plans for their child's school attendance in the fall. Parents were asked, "If schools open in the fall, do you plan to keep your child at home (ie, home school) or send them to school?" Response options ranged from definitely keep child home (1) to definitely send child to school (5).

Parent Attitudes and Beliefs

Four multi-item scales assessed (1) parent confidence in their child's school, (2) anticipated difficulty keeping their child home, (3) worry about COVID-19 (as measured by the Danger subscale of the COVID-19 Stress Scale²⁹), and (4) worry about the multisystem inflammatory syndrome in children. Questions are provided (eAppendix in the [Supplement](#)).

Socioeconomic and Family Composition Characteristics

Parent age, sex, number of other children in their family, number of adults in their home, whether they live with an elderly family member or person with a chronic health condition, and child age and sex were queried. Race/ethnicity was self-reported using US Census categories. Past-year household income was assessed in \$10 000 increments. Due to a survey coding error, incomes between \$100 000 and \$150 000 were included in 1 category. Parent education was assessed in 4 categories (high school or less, some college, bachelor's degree, or graduate degree). They also reported whether their child qualifies for free or reduced-price lunch at their school and the type of school their child attended (public charter, parochial or religious, or private nonreligious). Parents indicated whether they were employed (full time or part time), and if employed, whether they were considered an "essential worker."¹⁰ They were also asked the extent to which their job allows for work from home (yes, somewhat, or no), and whether they have a flexible work schedule that they can control (yes, somewhat, or no).

Statistical Analyses

Because data were oversampled based on race and ethnicity, we developed raking weights using iterative poststratification^{30,31} to describe parent plans about sending their children back to school in the fall (aim 1). We used census data to generalize to a sample nationally representative in terms of race, ethnicity, and income for households with at least 1 child.³²

To examine differences in plans for school attendance across socioeconomic and family characteristics (aim 2), we used ordered probit regression with all planned variables entered simultaneously. Probit regression makes the assumption that a continuous, latent variable underlies the categorical response options to the survey items and produces coefficient estimates in terms of *z* scores.³³ We controlled for design variables in the probit analysis rather than using weights,³⁴ with all variables centered at their weighted rather than original values.

To understand the associations between parent attitudes and beliefs, sociodemographic characteristics, and plans for school attendance, we used a series of ordinal probit regression models (aim 3). Plans for school attendance were regressed on all 4 attitude and belief variables (fears about COVID-

19, fears about multisystem inflammatory syndrome, confidence in schools, and challenges due to homeschooling), controlling for sociodemographic characteristics. To understand how attitudes and beliefs differed across sociodemographic characteristics, these variables were also regressed on sociodemographic characteristics. Models were estimated using Mplus, version 8.0 (Muthén & Muthén).³⁵

Multiple Comparisons

To manage the rate of false positives, we used the Benjamini-Hochberg adjustment, with a criterion of *P* less than .05 and the false discovery rate set to 5% for all models.³⁶

Missing Data

Of the 730 initial participants, 3 participants were dropped owing to missing data. The very small missingness rate is unlikely to have biased the results.

Results

Sample Characteristics

Raw and weighted sample characteristics are presented in **Table 1**. The unweighted sample included 730 participants and was largely consistent with population norms for households with at least 1 child, with successful oversampling for Black (28%; *n* = 201) and Hispanic (27%; *n* = 200) participants and balance across parent sex (53% female; *n* = 388). Lower-income participants were somewhat overrepresented compared with population norms (37% sample vs 30% in the weighted sample), and higher-income participants were somewhat underrepresented (9% in the sample vs 21% in the weighted sample). After applying the weights, households reported relatively even distributions of grade level for the focal child (range, 19% to 33%), with 71% attending public school. Thirty-four percent of participants reported at least 1 medically vulnerable person living in their household, 57% of those employed said their job could be completed from home, and 44% reported having flexible work hours.

Survey Results (Aim 1)

Weighted survey responses for key variables are presented in **Figure 1**. Notably, only 49% of participants said they would probably or definitely send their child to school if it opened in the fall, with 30% responding they would probably or definitely keep their child home. Forty percent of participants were more than moderately worried that they would catch the virus or that the health care system would not be able to protect their loved ones, and 34% were more than moderately worried about multisystem inflammatory syndrome in children. Confidence in schools was relatively modest, with 29% reporting they were confident or very confident that school could prevent the spread of COVID-19, 35% reporting school could provide enough social interaction for their child while enforcing social distancing, and 45% reporting that schools could meet their child's academic needs with a modified schedule.

Table 1. Sample Statistics (N = 730)

Parameter	Unweighted No. (weighted %)
No.	730
Parent sex	
Male	342 (0.45)
Female	388 (0.55)
Parent age, mean (SD), y	43.9 (10.9) ^a
Race	
White	447 (0.75)
Black	201 (0.14)
Asian	41 (0.07)
Other ^b	41 (0.04)
Ethnicity	
Hispanic	200 (0.21)
Not Hispanic	530 (0.79)
Household income, \$	
<50 000	267 (0.30)
50 000-100 000	302 (0.30)
100 000-150 000	98 (0.18)
>150 000	63 (0.21)
At least 1 medically vulnerable person	
No	467 (0.66)
Yes	263 (0.34)
Parent education	
HS diploma or less	107 (0.15)
Some college	170 (0.23)
BA	326 (0.41)
Graduate degree	127 (0.21)
Employment status	
Full-time	497 (0.67)
Part-time	65 (0.09)
Not employed	168 (0.24)
Essential employee (among employed)	
No	272 (0.49)
Yes	291 (0.51)
Work from home (among employed)	
Yes	320 (0.55)
Somewhat	108 (0.19)
No	135 (0.26)
Flexible job (among employed)	
Yes	246 (0.44)
Somewhat	201 (0.34)
No	116 (0.22)
No. of adults in household	0.8 (2.2)
No. of children	
Aged 0-4 y	0.6 (1.26)
Aged 5-17 y	0.9 (1.54)
Child grade	
Pre-K to grade 2	161 (0.19)
Grades 3-5	211 (0.26)
Grades 6-8	143 (0.22)
Grades 9-12	214 (0.33)

(continued)

Table 1. Sample Statistics (N = 730) (continued)

Parameter	Unweighted No. (weighted %)
School type	
Public	505 (0.71)
Charter	43 (0.05)
Parochial/religious	50 (0.08)
Private	97 (0.13)
Other	29 (0.04)
Homeschool, mean (SD), h/wk	5.1 (3.7) ^a

Abbreviations: BA, bachelor of arts; HS, high school.

^a Weighted means and standard deviations for continuous variables.^b "Other" races/ethnicities included participants who identified as American Indian or Alaska Native, Native Hawaiian or Pacific Islander, or other.

Socioeconomic Characteristics and Family Composition (Aim 2)

Factors associated with anticipated school attendance choice are shown in **Figure 2**. Key factors included income level, employment status, and job flexibility. Controlling for all other model variables, participants with lower incomes reported a higher likelihood of keeping their children home in the fall, with model-adjusted proportions of 38% of those making less than \$50 000 per year in the "probably home" or "definitely home" categories vs 21% with incomes of \$100 000 to \$150 000 (difference, 17%; 95% CI, 9% to 26%). Those with flexible jobs were nearly as likely to keep their children home as those who were not employed (33% vs 40%; difference, 7%; 95% CI, -3% to 17%), whereas just 19% of those whose jobs were not flexible planned to probably or definitely keep their children home (difference from flexible jobs, -17%; 95% CI, -30% to -5%). Parents with children in grades 3 through 5 were more likely to plan to keep their children home than parents of high schoolers. Parents in households with vulnerable people were modestly more likely to plan to keep their children home. Race and ethnicity were not significantly associated with plans to keep children home. Together, family characteristics were associated with a modest proportion of the variability in plans to send children to school ($R^2 = 16\%$).

Parent Attitudes and Beliefs (Aim 3)

Results from the ordered probit regression models examining parent attitudes and beliefs are shown in **Table 2**. After controlling for sociodemographic and family composition predictors, planning to keep children home was associated with fear of COVID-19 ($B = 0.19$; $P < .001$), fear of multisystem inflammatory syndrome ($B = 0.12$; $P = .04$), confidence in schools ($B = -0.22$; $P < .001$), and challenges of homeschooling ($B = -0.12$; $P = .01$).

An education level of some college or less was generally associated with less fear about COVID-19 and multisystem inflammatory syndrome (see **Table 2** for exact patterning of results). In contrast, having a vulnerable person in the household was associated with more fears of both COVID-19 ($B = 0.22$; $P = .04$) and multisystem inflammatory syndrome ($B = 0.25$; $P = .02$). Hispanic ethnicity was associated with fear about COVID-19

Figure 1. Weighted Survey Results



($B = 0.28$; $P = .04$) but not multisystem inflammatory syndrome, whereas having a younger child was associated with fear of multisystem inflammatory syndrome but not COVID-19 (Table 2).

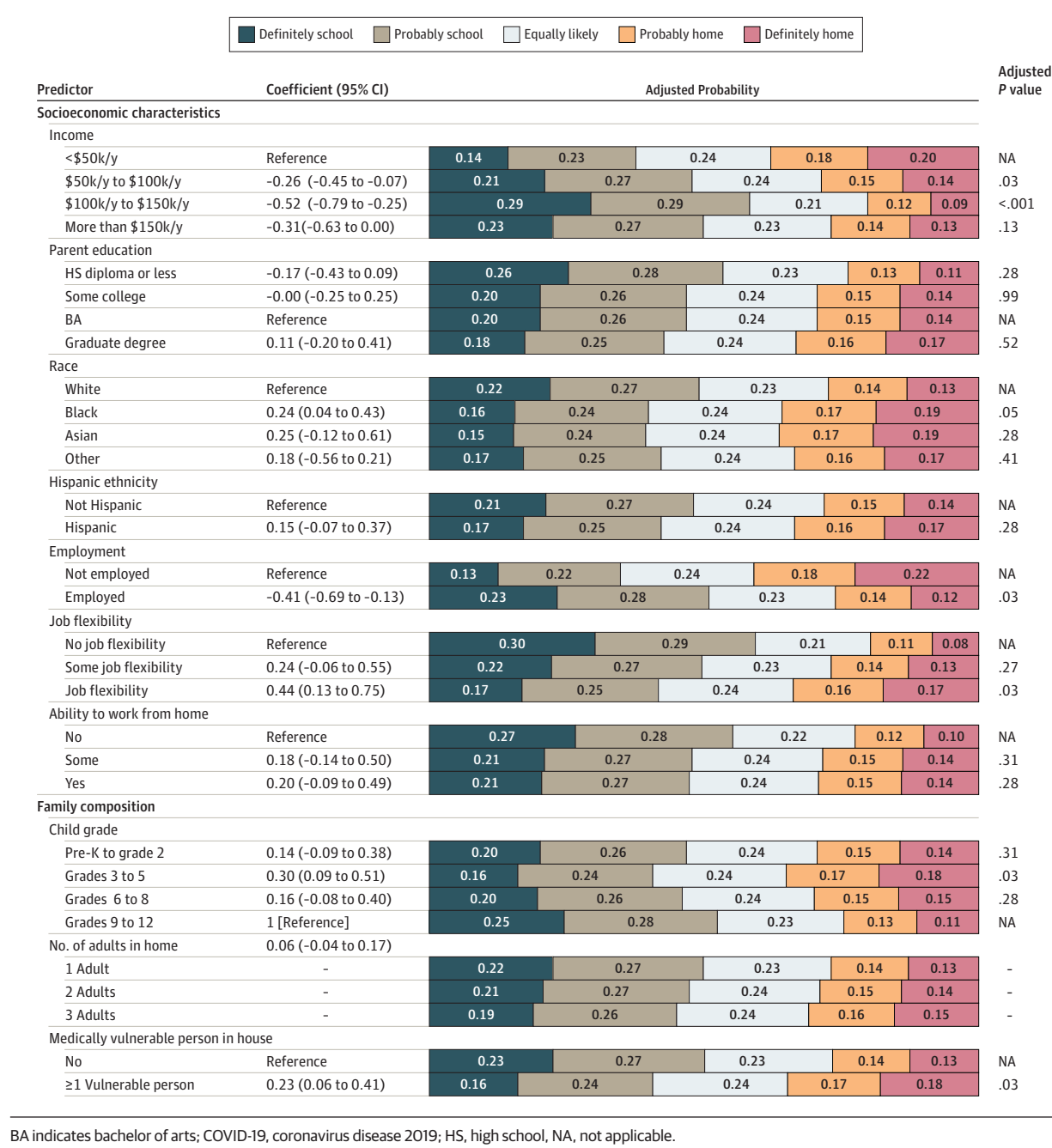
Parents anticipated more challenges homeschooling younger children compared with high schoolers (prekindergarten to grade 2, $B = 0.56$; $P < .001$; grades 3-5, $B = 0.43$; $P < .001$; grades 6-8, $B = 0.31$; $P = .02$). Parents who were employed also indicated more expected challenges of homeschooling ($B = 0.51$; $P < .001$), and this effect did not vary according to job flexibility. Only education level was associated with confidence in schools, with those with graduate degrees expressing the most confidence. Race was not significantly as-

sociated with any of the parent attitude and belief measures. Including attitude and belief variables in the model explained moderately more variation in plans for school attendance ($\Delta R^2 = 11\%$; total $R^2 = 27\%$).

Discussion

Nearly one-third of families in this sample plan to definitely or probably keep their child home in fall 2020, highlighting the reality that while policy decisions about opening schools are made at the community and state level, families are separately making their own decisions. Given the potential impli-

Figure 2. Plans to Keep Children Home From School Adjusted by Socioeconomic and Family Characteristics



BA indicates bachelor of arts; COVID-19, coronavirus disease 2019; HS, high school, NA, not applicable.

cations of school attendance for viral transmission, academic progress, social-emotional development, and parent well-being, it is critical that families receive appropriate guidance to make an informed choice that reflects their values, priorities, and specific health risks. It is also critical that structural barriers to families making the choice that works best for them are acknowledged and remedied where possible to minimize worsening disparities. Further, given the reality that many parents are strongly considering keeping their children home, schools and school districts must consider how they can feasibly meet the needs of this potentially sizeable fraction of the

population. While many school districts in the US are now planning to start the 2020 school year with fully remote instruction, the present findings will continue to be relevant as instructional options change during the ongoing pandemic.

That many families plan to keep their child home is not necessarily problematic. Homeschooling is a decision that some families make every year and, if well implemented, can meet a child's learning and social-emotional needs.³⁷ However, parents may be assuming that their child's school will provide resources (eg, instructional materials or virtual teacher interaction) for teacher-led learning at home. If families are choosing

Table 2. Associations Between Parent Attitudes and Beliefs, Sociodemographic Characteristics, and Plans for School Attendance^a

Predictor	Fear of COVID-19		Fear of MI syndrome		Confidence in school		Challenges of homeschooling		Likelihood of keeping child home	
	Coef (SE)	Adjusted P value	Coef (SE)	Adjusted P value	Coef (SE)	Adjusted P value	Coef (SE)	Adjusted P value	Coef (SE)	Adjusted P value
Parent attitudes and beliefs										
Fear of COVID-19	NA	NA	NA	NA	NA	NA	NA	NA	0.19 (0.04)	<.001
Fear of MI syndrome	NA	NA	NA	NA	NA	NA	NA	NA	0.12 (0.04)	.04
Confidence in school	NA	NA	NA	NA	NA	NA	NA	NA	-0.22 (0.04)	<.001
Challenges of homeschooling	NA	NA	NA	NA	NA	NA	NA	NA	-0.12 (0.04)	.01
Socioeconomic characteristics										
Income, \$/y										
<50 000	Reference	NA	Reference	NA	Reference	NA	Reference	NA	Reference	NA
50 000-100 000	-0.12 (0.09)	.39	-0.03 (0.09)	.83	0.04 (0.09)	.76	-0.06 (0.08)	.68	-0.23 (0.09)	.06
100 000-150 000	-0.07 (0.13)	.75	-0.02 (0.14)	.94	0.16 (0.13)	.42	0.04 (0.12)	.83	-0.47 (0.13)	<.001
>150 000	-0.13 (0.14)	.56	0.11 (0.14)	.63	0.09 (0.14)	.72	-0.32 (0.14)	.07	-0.32 (0.15)	.11
Parent education										
Bachelor's degree	Reference	NA	Reference	NA	Reference	NA	Reference	NA	Reference	NA
High school diploma or less	-0.39 (0.11)	<.001	-0.22 (0.12)	.18	0.11 (0.11)	.54	-0.13 (0.11)	.47	-0.06 (0.12)	.76
Some college	-0.31 (0.11)	.03	-0.33 (0.12)	.04	0.26 (0.11)	.07	0.04 (0.11)	.86	0.16 (0.12)	.39
Graduate degree	-0.08 (0.14)	.74	-0.13 (0.14)	.56	0.43 (0.14)	.02	0.14 (0.14)	.52	0.25 (0.15)	.25
Race										
White	Reference	NA	Reference	NA	Reference	NA	Reference	NA	Reference	NA
Black	0.05 (0.09)	.76	0.17 (0.09)	.20	-0.03 (0.09)	.89	-0.14 (0.09)	.26	0.18 (0.10)	.20
Asian	0.18 (0.18)	.54	0.47 (0.19)	.06	0.08 (0.19)	.81	-0.02 (0.17)	.94	0.18 (0.18)	.54
Other	-0.01 (0.16)	.95	-0.04 (0.16)	.91	-0.13 (0.17)	.67	-0.24 (0.16)	.28	0.13 (0.17)	.67
Hispanic ethnicity	0.28 (0.10)	.04	0.09 (0.10)	.56	0.17 (0.10)	.26	0.24 (0.10)	.06	0.15 (0.11)	.33
Employed	0.02 (0.12)	.93	-0.08 (0.12)	.68	0.20 (0.12)	.26	0.51 (0.12)	<.001	-0.30 (0.13)	.09
Employment characteristics										
Job flexibility										
No	Reference	NA	Reference	NA	Reference	NA	Reference	NA	Reference	NA
Some	0.01 (0.13)	.96	0.07 (0.13)	.75	0.05 (0.13)	.82	-0.16 (0.11)	.35	0.22 (0.14)	.28
Yes	-0.03 (0.13)	.91	-0.03 (0.13)	.91	0.24 (0.13)	.20	-0.08 (0.12)	.68	0.49 (0.15)	.01
Work from home										
No	Reference	NA	Reference	NA	Reference	NA	Reference	NA	Reference	NA
Some	-0.03 (0.14)	.91	-0.03 (0.14)	.91	-0.01 (0.14)	.94	0.05 (0.13)	.84	0.2 (0.15)	.39
Yes	0.28 (0.12)	.07	0.20 (0.13)	.27	0.09 (0.13)	.68	0.10 (0.11)	.58	0.15 (0.14)	.51
Family composition										
Child grade										
Grades 9-12	Reference	NA	Reference	NA	Reference	NA	Reference	NA	Reference	NA
Pre-K through grade 2	0.21 (0.11)	.17	0.30 (0.11)	.04	0.12 (0.11)	.47	0.56 (0.11)	<.001	0.16 (0.12)	.35
Grades 3-5	0.08 (0.10)	.60	0.25 (0.10)	.07	0.10 (0.10)	.52	0.43 (0.10)	<.001	0.33 (0.10)	.01
Grades 6-8	0.18 (0.10)	.21	0.25 (0.10)	.07	-0.02 (0.11)	.93	0.31 (0.10)	.02	0.13 (0.12)	.49
No. of adults	0.01 (0.05)	.97	-0.05 (0.05)	.56	0.08 (0.05)	.26	-0.06 (0.05)	.46	0.08 (0.05)	.30
At least 1 vulnerable person	0.22 (0.08)	.04	0.25 (0.08)	.02	0.08 (0.08)	.54	0.12 (0.08)	.28	0.19 (0.09)	.09

Abbreviations: Coef, coefficient; COVID-19, coronavirus disease 2019; MI, multisystem inflammatory; NA, not applicable.

^a All parent attitude and belief measures were included as standardized continuous variables; therefore, predictor coefficients can be interpreted as standardized mean differences between the prediction category and reference group

(ie, equivalent to Cohen *d*). Likelihood of sending a child to school was modeled using a probit link function assuming an underlying continuous latent variable, meaning that differences between predictor categories are also in a z score metric. Adjusted *P* values with the false discovery rate set to 5%.

to keep children home in the absence of adequate resources and support for remote learning from their child's school, it is critical that they understand the key components of high-quality, developmentally appropriate homeschooling.³⁸ Schools or school districts should clearly communicate to families the level of home learning support that will be provided (if any), along with the competencies and requirements for developmentally appropriate homeschooling in the absence of school support.

Overall, parents were highly worried about COVID-19 and multisystem inflammatory syndrome, with worry and having a medically vulnerable household member associated with greater likelihood of planning to keep children home. While worry is subjective, it is critical that where there is objective data, this information is clearly communicated to families so that worry is at least relative to accurate probabilities. Extant data suggest that children are half as susceptible to infection compared with adults,³⁹ and multisystem inflammatory syndrome in particular poses very limited risk to most children, suggesting that misperceptions about its prevalence could be addressed within decision support tools while also addressing key risk modifiers, such as having a medically vulnerable household member.

Few parents were confident that their child's school would be able to prevent students from spreading COVID-19. Importantly, parent confidence in school practices will likely change as schools finalize and communicate what steps they will be taking to limit viral transmission. Leading organizations, including the American Academy of Pediatrics and the National Academies of Sciences, Engineering, and Medicine, have released age-specific guidance for school reopening.^{40,41} Further research is needed to understand how parent willingness to send their child to school varies by school adoption of these practices. However, regardless of what practices the school adopts, parent perceptions about whether they will be consistently implemented by their child's school is likely also an important behavioral determinant. More educated parents in the sample had greater confidence in their child's school, potentially related to more positive prior experiences with their child's school meeting student needs in other contexts.

Critically, having a flexible schedule under one's own control may be a key structural barrier in families' abilities to make in-person school attendance decisions that they feel are best for their risk profile. In fact, the effect of job flexibility was a stronger predictor of planning for home-based learning than was having a medically vulnerable person in the household. More than three-quarters (78%) of employed participants reported having at least some flexibility. However, it is possible that a large subset of jobs with temporarily enhanced flexibility return to more traditional schedule demands if there is an option for in-person school attendance, forcing employees to choose between protecting their jobs and minimizing their family's perceived COVID-19 risk. Notably, job flexibility was distinguished from having a job that can be completed from home, which was not associated with a greater likelihood of home-based learning. Critically, schedule control tends to be more prevalent in senior white-collar jobs,¹⁵ meaning that less socioeconomically advantaged families likely will be less able to make the choice about in-person schooling that works best for their family. Corporate, local, or federal policies supporting flexibility after schools

reopen may help protect those at greatest health risk, particularly those with socioeconomic disadvantage.

Limitations

This study has several limitations. First is the use of a nonprobability sampling frame, meaning that survey respondents may not necessarily be generalizable to nonrespondents; samples obtained this way tend to be younger than the average US adult and lack racial/ethnic diversity.⁴² However, we followed emergent guidance on how to obtain a demographically diverse and high-quality nonprobability sample, stratifying recruitment by socioeconomic characteristics²³ and applying attention and data quality checks.⁴³ We also note that this sampling strategy involved parents accessing a survey online. Consequently, participants may be more technologically literate and have greater comfort with remote learning than the average US parent. Second, we did not measure whether the reference child had another parent and the employment status of that parent. Future studies should more holistically understand the family context and how combined parent work demands and flexibility influence decision-making related to school attendance. Third, the term *homeschooling* was used in the question stem about planned parent behavior. It is possible this wording was interpreted as not subsuming school-facilitated remote learning, in which case the estimate of parent plans to keep their child home may be biased downwards. Fourth, we measured intentions, and the extent to which these will be acted on is unclear. Although many parents reported reluctance to return their children to school, they may in fact do so when presented with a binary choice of returning or homeschooling. Further, we did not ask about school attendance plans under specific schooling options, such as hybrid in-person and distance learning.

Conclusions

In spite of these limitations, this study has important implications for parents, schools, and policy makers. Parents should seek counsel from a trusted medical source (eg, their primary health care clinician) regarding the potential risks posed to their child and family by returning to school. There is scope for decision support to help families make this important choice. However, decision support alone is not sufficient for equitable decision-making. Structural barriers, such as lack of workplace flexibility and potential school-level inequities in implementation of health-related policies, must be acknowledged and addressed where possible. Schools need to act soon to allay parental concerns and provide options for what will be available for them should they opt to keep their child home. Policy makers need to ensure that there are adequate resources provided to schools to meet parental expectations regarding personal protective equipment, social distancing, symptom checking, and other steps recommended by organizations such as the US Centers for Disease Control and Prevention. It is expected that school budgets will need to expand rather than contract as might be expected given current fiscal crises. Such steps are critical for all families to be able to equitably act on their preferences regarding school attendance.

ARTICLE INFORMATION

Accepted for Publication: July 30, 2020.

Published Online: August 14, 2020.
doi:10.1001/jamapediatrics.2020.3864

Author Contributions: Drs Kroshus and Hawrilenko had full access to all of the data in the study and take responsibility for the integrity of the data and the accuracy of the data analysis.
Concept and design: All authors.

Acquisition, analysis, or interpretation of data: Kroshus, Hawrilenko, Christakis.

Drafting of the manuscript: Kroshus, Hawrilenko.

Critical revision of the manuscript for important intellectual content: Hawrilenko, Tandon, Christakis.

Statistical analysis: Hawrilenko.

Administrative, technical, or material support: Kroshus.

Supervision: Christakis.

Conflict of Interest Disclosures: None reported.

Disclaimer: Dr Christakis is Editor of *JAMA Pediatrics*, but he was not involved in any of the decisions regarding review of the manuscript or its acceptance.

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