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THE COVID STATES PROJECT: A 50-STATE COVID-19 SURVEY REPORT #56: VACCINE RESISTANCE AMONG PARENTS

USA, July 2021

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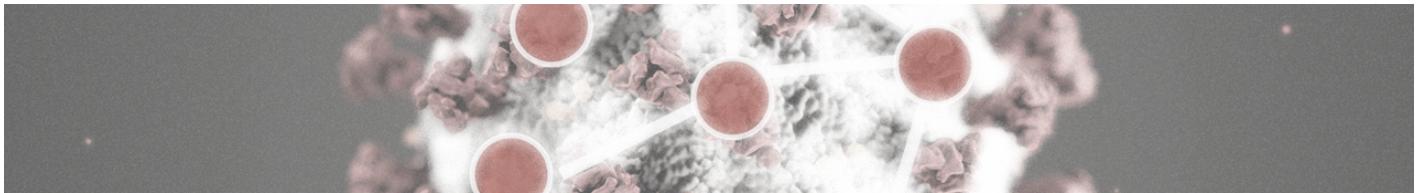
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Report of July 19, 2021, v.1

The COVID States Project

From: The COVID-19 Consortium for Understanding the Public's Policy Preferences Across States

A joint project of:

Northeastern University, Harvard University, Rutgers University, and Northwestern University

Authors: Matthew Simonson (Northeastern University); David Lazer (Northeastern University); Hong Qu (Northeastern University); Ata Uslu (Northeastern University); Katherine Ognyanova (Rutgers University); Matthew A. Baum (Harvard University); James Druckman (Northwestern University); Roy H. Perlis (Harvard Medical School); Jon Green (Northeastern University); Jennifer Lin (Northwestern University), and Mauricio Santillana (Harvard Medical School)

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Summary Memo — July 19, 2021

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From April 2020 through May 2021, we conducted multiple waves of a large, 50-state survey, some results of which are presented here. You can find previous reports online at covidstates.org.

Note on methods:

This report is based on a survey for adults 18 years and older from across all 50 states plus the District of Columbia. Data collection took place in three waves, referred to as winter, spring, and summer in the report. The winter wave took place from February 5 to March 1, 2021 and included 21,500 adults, of whom 6,227 reported having children under 18 in their household. The spring wave lasted from April 1 to May 3, 2021 and included 21,733 adults (7,084 living with children). The summer wave took place from June 9 to July 6, 2021 and included 20,669 adults (7,046 living with children). The survey was conducted by PureSpectrum via an online, nonprobability sample, with state-level representative quotas for race/ethnicity, age, and gender (for methodological details on the other waves, see covidstates.org). In addition to balancing on these dimensions, we reweighted our data using demographic characteristics to match the U.S. population with respect to race/ethnicity, age, gender, education, and living in urban, suburban, or rural areas.

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Vaccine resistance among parents: Summer 2021 update

With school just around the corner in many states, how do Americans feel about requiring COVID-19 vaccination for in-person school attendance? And how do parents feel about vaccinating their kids? Since our last two reports on parents' vaccination attitudes in [March](#) and [May](#), the Pfizer vaccine has been approved for children 12 and older, and over [two-thirds](#) of adults are at least partially vaccinated as of July 2021. Yet, while attitudes towards child vaccination have become more positive, the trend has been uneven across parents of different gender and age. Generally, Americans are now less resistant toward vaccinating their children than they were in the winter and spring, but high resistance among mothers of young children—key decision makers for their children's health—could impede further progress once vaccines become available to younger children, which is [likely sometime this fall](#).

Key Takeaways

- Major gender and age gaps remain, with **young mothers and mothers of young children being the most resistant to vaccinating** their kids and requiring COVID-19 vaccination for in-person school attendance.
- **Among older mothers, vaccine resistance is declining** and support for school vaccine mandates is increasing.
- **Black parents have become substantially less resistant** to vaccinating their kids. However, among Democrats, Black parents remain by far the most vaccination-resistant group, followed by Hispanic Democrats, then White Democrats, due in part to lower levels of trust in government and healthcare institutions. Asian American parents are the most pro-vaccine among both Democrats and Republicans.
- **Support for school vaccine mandates has grown substantially** from 54.4% in the winter to 61.3% in the summer. Support has grown among both Republicans and Democrats, though a major partisan gap

persists. Overall, Americans who are more liberal, educated, higher income, and urban are more likely to support school vaccine mandates.

- Among parents specifically, every group except young mothers and mothers of young children has become more supportive of requiring vaccination to attend school.

All charts below show a dot for the best (that is, "mean") estimate, surrounded by a bar to indicate uncertainty in where the true percentage lies (that is, 95% confidence intervals). All differences reported in the text are statistically significant unless noted.

Note: *For the purposes of this report, we define "parent" loosely as any respondent who has children under the age of 18 living with them. We acknowledge that this may include other caretakers such as grandparents, that some adults in the household may have relatively little childcare responsibilities, and that some respondents without children in their home may be parents as well.*

Parents' Resistance Toward Vaccinating Children

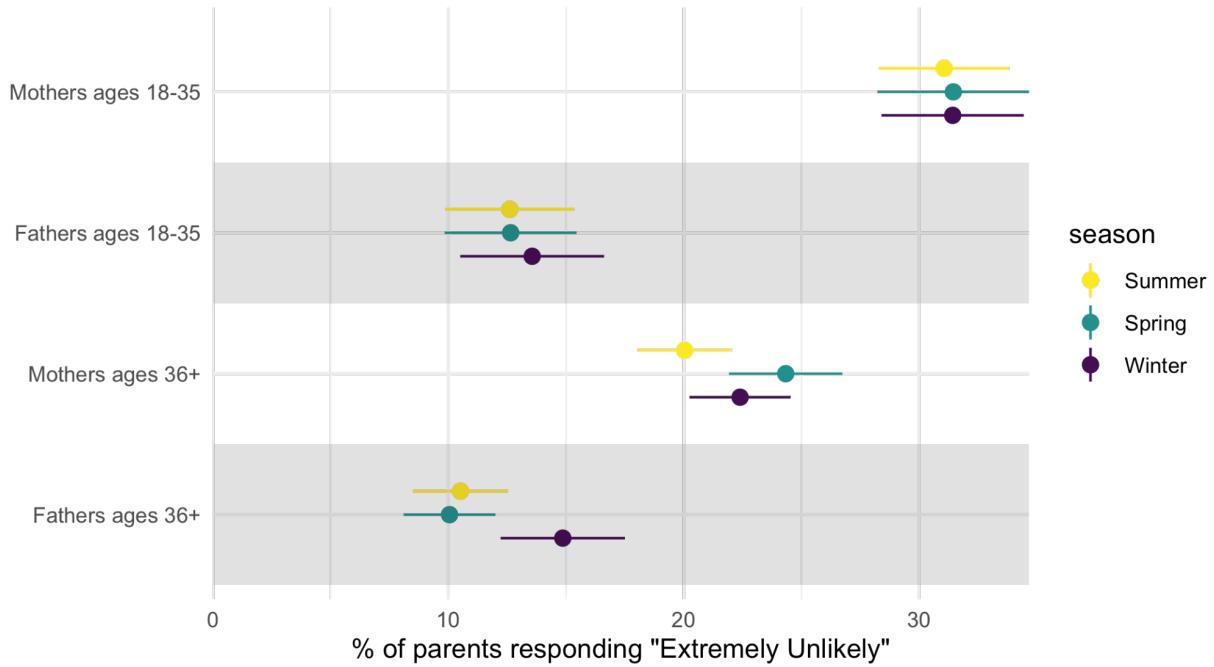
Parents' attitudes toward vaccinating their children are largely driven by gender, party, and their children's age. Parents of younger children, Republicans, and mothers are far more reluctant to vaccinate their children against COVID-19. The effects of race are more nuanced—Black parents and White parents appear to have an equal rate of vaccine resistance overall, but that is in part because Blacks are more likely to be politically liberal. Among Black and White Democrats, Black parents are more resistant, due in part to their (historically justified) mistrust of government and healthcare institutions. Socioeconomic status also plays a role with lower income—and especially lower education attainment—corresponding to more resistance.

Gender and Age

As shown in Figure 1, older parents have grown less resistant since the winter. However, younger parents have stayed at about the same level of resistance. There is a substantial gap in vaccine resistance between mothers and fathers (mothers are more vaccine resistant), with the gender gap being smaller among older parents.

Parent Resistance Toward Vaccinating Children by **Gender & Age**

"If a vaccine against COVID-19 was available to you, how likely would you be to get your children vaccinated?"



Winter wave: 2/5/21–3/1/21, N = 6,227; Spring wave: 4/1/21–5/3/21, N = 7,084; Summer wave: 6/9/21–7/6/21, N = 7,046. Error bars represent 95% confidence intervals. Source: *The Covid States Project* (Northeastern University, Harvard University, Rutgers University, and Northwestern University)

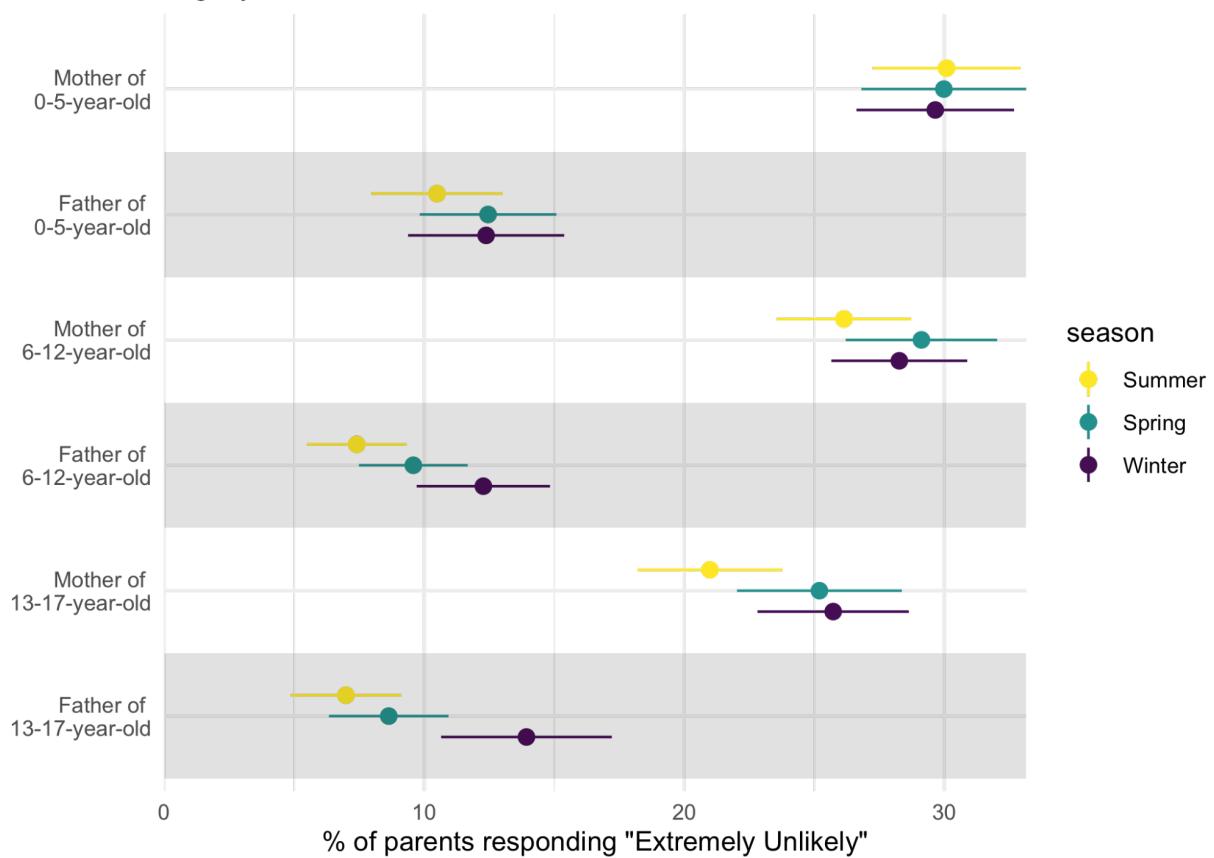
Figure 1: Parent Resistance Towards Vaccinating Children by Gender and Age

When it comes to childrens' ages, there is a similar trend as for parent's age: parents of older kids are becoming less resistant (see Figure 2). Mothers have started to move toward vaccine acceptance, especially if their kids are teenagers, who have been [eligible](#) to be vaccinated since May 10, 2021. In contrast, resistance among mothers of younger children (ages 0-5) has not decreased. Fathers of young children seem to have become less resistant, though there is too much uncertainty in our estimate to say for sure. Of course, parents of older children are more likely to be older themselves, leading us to ask which is more important, the age of parents or the age of their children? We measured the two simultaneously in a multiple regression and found that vaccine resistance is largely driven by the age of children, not age of parents.¹

¹ That said, when we compare younger parents of little children to older parents of little children, parent age is still relevant (the same is true for parents of older children and teens). However, when we also control for additional demographic traits such as party, race, and income, the effect of age tends to disappear while the effect of children's age remains robust.

Parent Resistance Toward Vaccinating Children by Children's Age

"If a vaccine against COVID-19 was available to you, how likely would you be to get your children vaccinated?"



Winter wave: 2/5/21–3/1/21, N = 6,227; Spring wave: 4/1/21–5/3/21, N = 7,084; Summer wave: 6/9/21–7/6/21, N = 7,046. Error bars represent 95% confidence intervals. Source: *The Covid States Project* (Northeastern University, Harvard University, Rutgers University, and Northwestern University)

Figure 2: Parent Resistance Towards Vaccinating Children by Children's Age

Party

As shown in Figure 3, parents' willingness to vaccinate their children varies widely by party with a 23-point gap between Democrats (7.2%) and Republicans (30.7%). Since the winter, this partisan gap has slightly widened. While Republican parents' resistance has remained steady at approximately 30%, Democrat parents' resistance has decreased marginally from 9.8% last winter to 7.2% this summer.

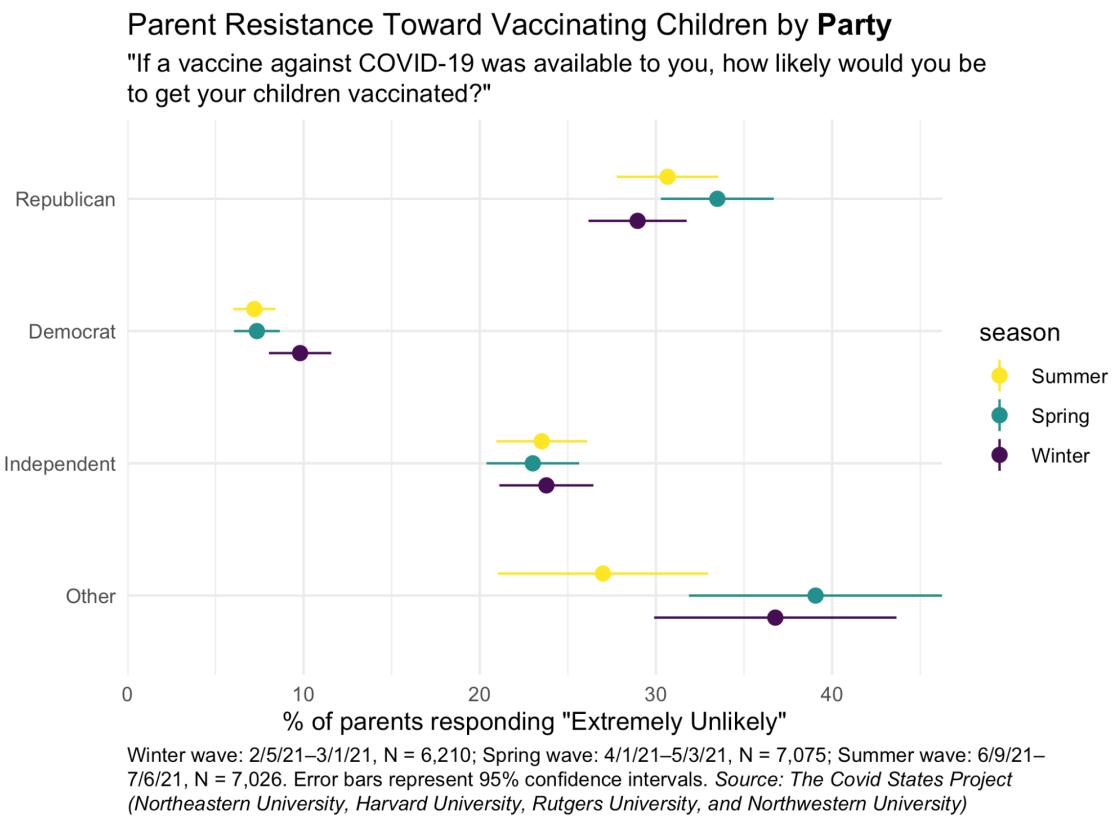


Figure 3: Parent Resistance Towards Vaccinating Children by Party

Socioeconomic Status

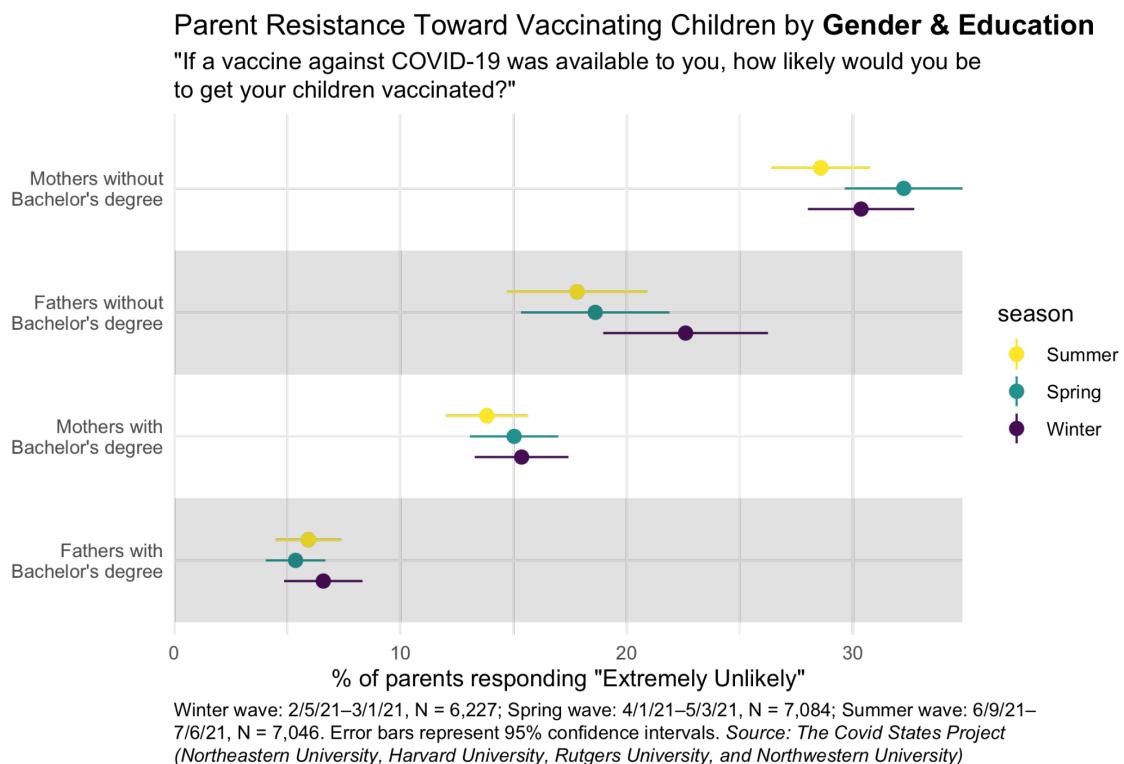


Figure 4: Parent Resistance Towards Vaccinating Children by Gender and Education

Education powerfully predicts vaccine acceptance, where parents with more education are much more likely to be vaccine acceptant (see Figure 4). However, the gender gap is robust within levels of educational attainment, where mothers are significantly more resistant than fathers at every educational attainment level.

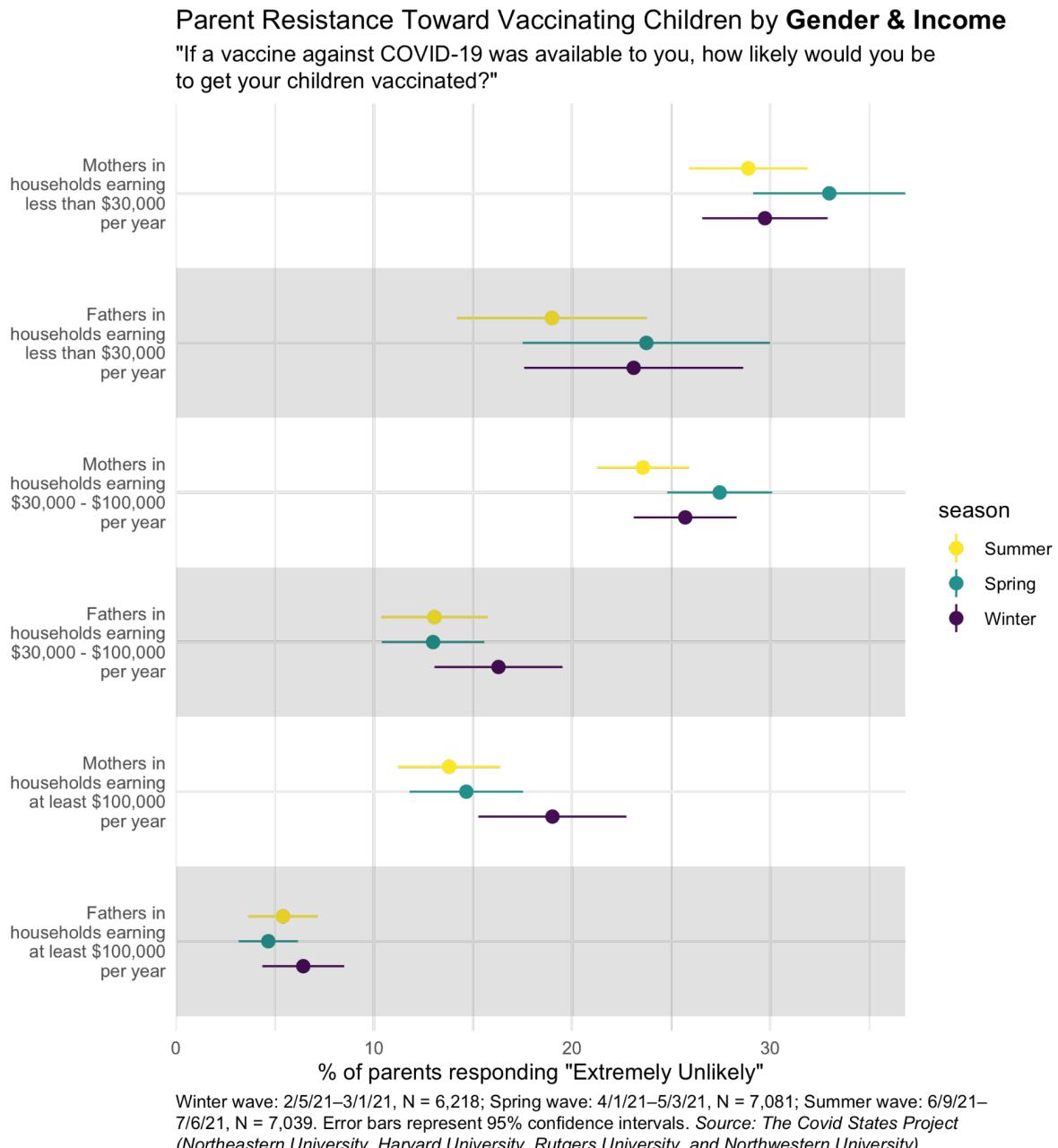


Figure 5: Parent Resistance Towards Vaccinating Children by Gender and Income

There is a similar pattern with income as with education, with a powerful positive relationship between income and vaccine acceptance (see Figure 5). As with education, the gender gap is equally wide across all income groups and persists over time. When we analyze education and income simultaneously in a multiple regression, we find that education appears to have a stronger relationship to vaccine attitudes than does income.

Race

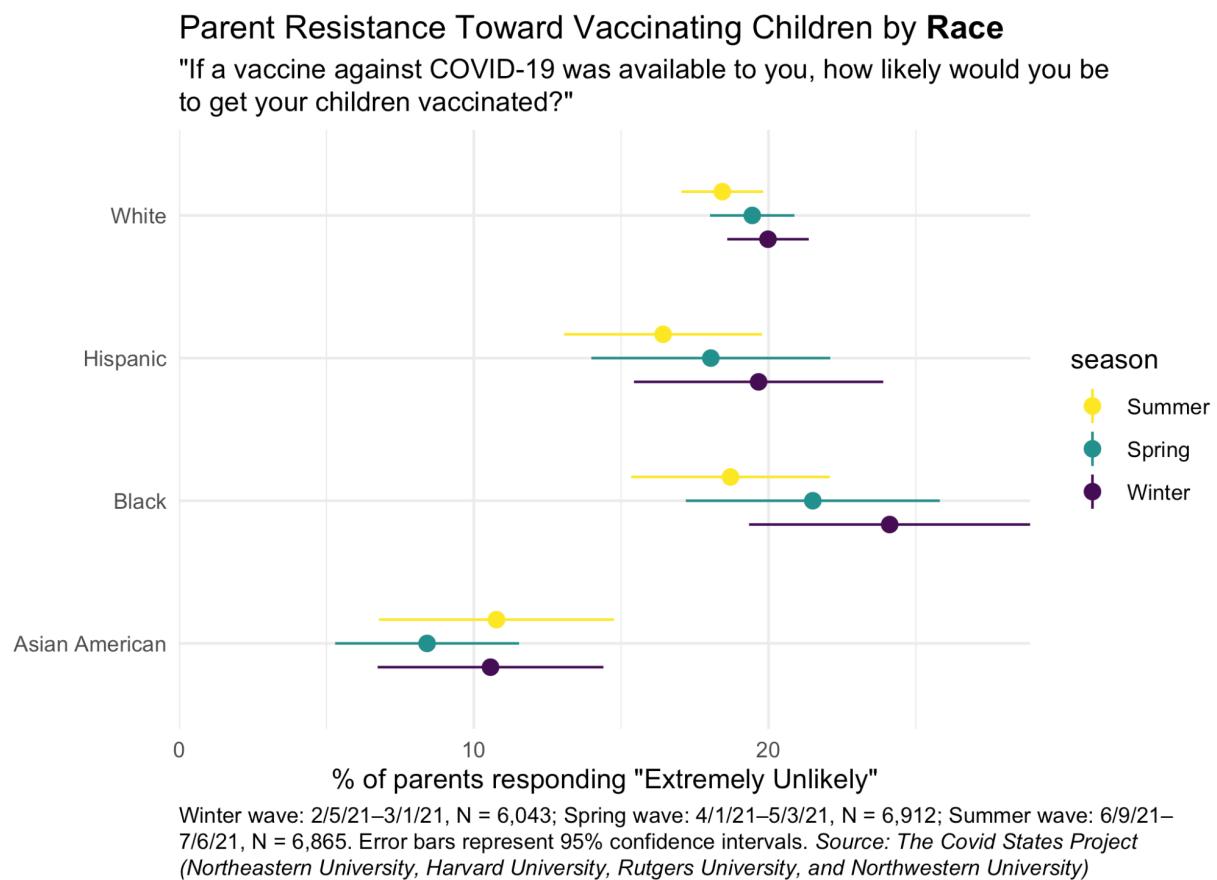


Figure 6: Parent Resistance Towards Vaccinating Children by Race

Black parents have become far less resistant since the winter (see Figure 6). Resistance among Black parents dropped by a quarter, from 24.1% to 18.7%. White parents became slightly less resistant (20.0% to 18.4%).² Overall, White, Black, and Hispanic parents have similar levels of vaccine resistance. However, among parents with similar politics, Black parents tend to be far more resistant than other parents. For instance, Black Democrats are substantially more reluctant to vaccinate their children than Hispanic, Asian, and White Democrats (see Figure 7). We see this effect as well in a multiple regression, when controlling for all the other demographic traits discussed in this report.

² While resistance among Hispanic parents also appears to have fallen, the summer estimate falls within the margin of error of the spring and winter estimates, so we cannot assert with 95% confidence that a change actually took place.

Parent Resistance Toward Vaccinating Children by Race among Democrats

"If a vaccine against COVID-19 was available to you, how likely would you be to get your children vaccinated?"

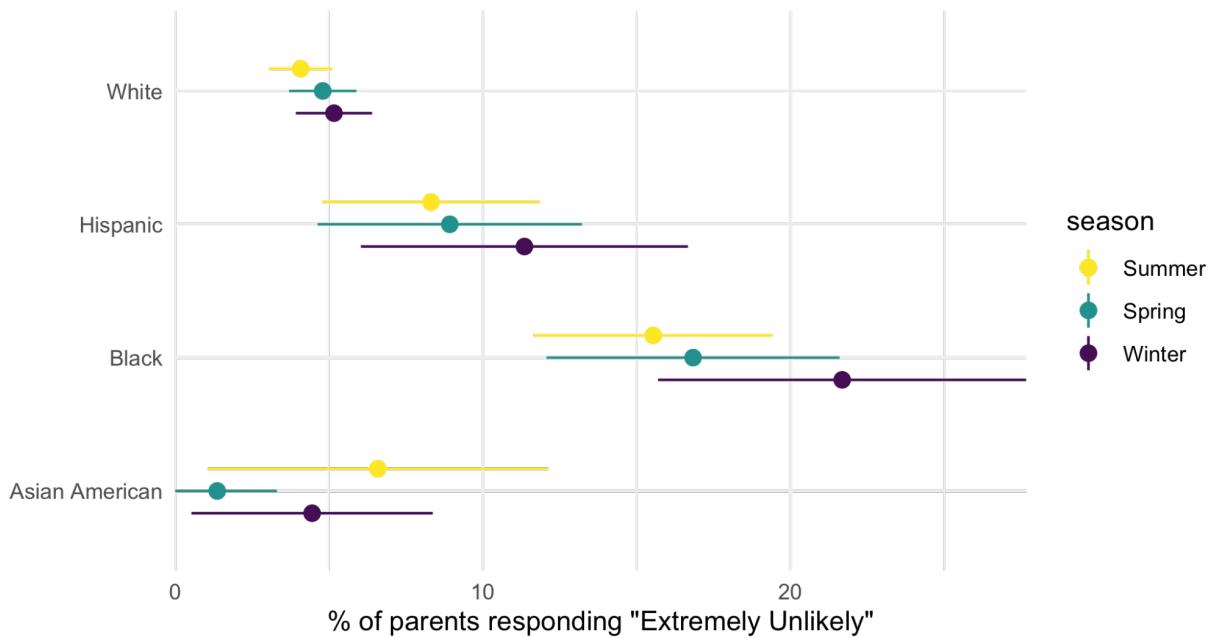


Figure 7: Parent Resistance Towards Vaccinating Children by Race among Democrats

Black Americans have faced a long history of mistreatment by the government, including in the healthcare system (see, for example, the [Tuskegee syphilis study](#)). Therefore, we also tried controlling for respondents' levels of trust in government and healthcare institutions.³ We discovered that the differences between Black parents and parents of other races shrink substantially once institutional trust is taken into account. Thus, higher vaccination resistance among Black Democrats compared to White, Asian American, and Hispanic Democrats is largely driven by a higher mistrust of government and healthcare institutions.

³ Specifically, we asked "How much do you trust the following people and organizations to do the right thing to best handle the current coronavirus (COVID-19) outbreak?" and listed 16 people and institutions including "your state government," the White House, the CDC (Centers for Disease Control), pharmaceutical companies, scientists and researchers, hospitals and doctors, the police, the news media, and Dr. Anthony Fauci. We then averaged each respondent's trust level across all 16 categories.

Parent Resistance Toward Vaccinating Children by Race & Gender

"If a vaccine against COVID-19 was available to you, how likely would you be to get your children vaccinated?"

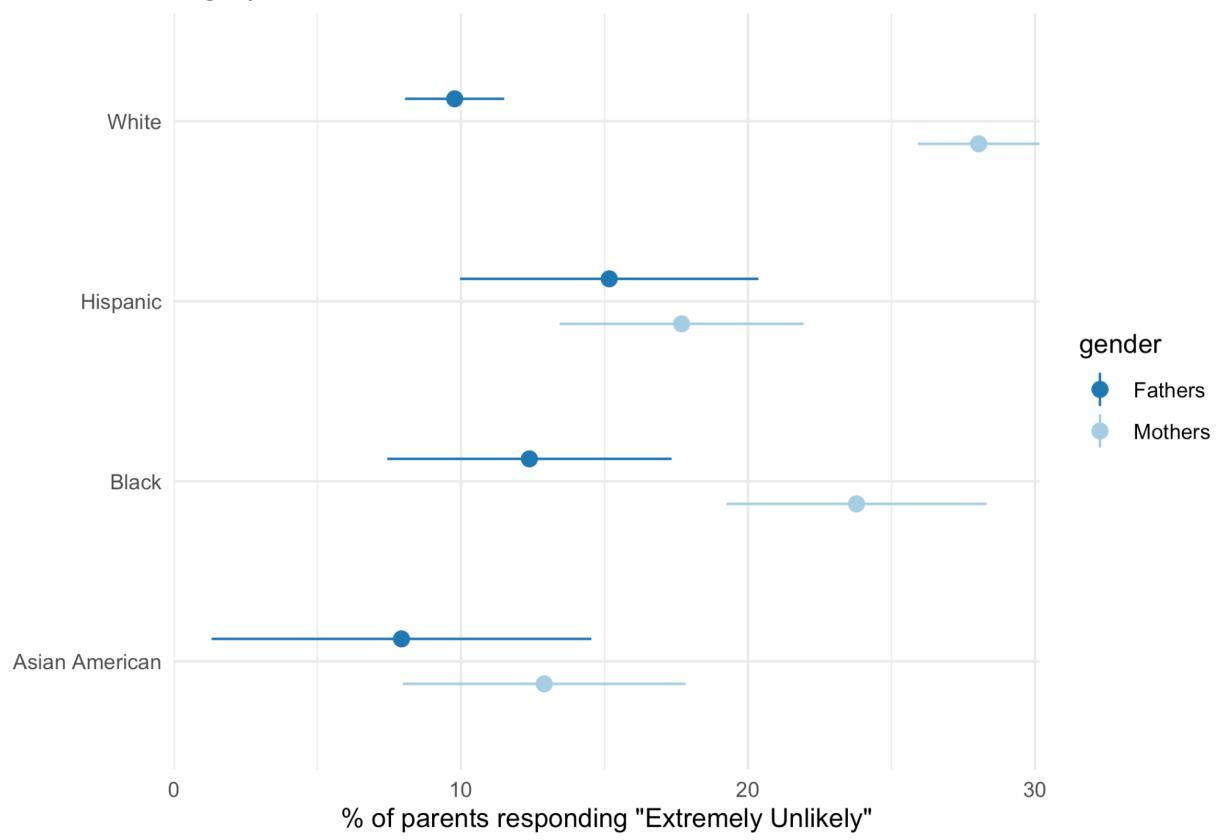


Figure 8: Parent Resistance Towards Vaccinating Children by Race and Gender

In Figure 8, which zooms in on the most recent survey wave (summer), we see that the aforementioned gender gap persists across all racial and ethnic groups, with Black and White mothers are more resistant to vaccinating their children than Black and White fathers respectively. By far the biggest gender gap exists among White parents, at 9.8% for White fathers compared to 28% for White mothers. The gaps among Asian American and Hispanic parents are too narrow to be statistically meaningful in a survey of this size, though they do appear to follow the same trend as Black and White parents.⁴

⁴ Other races are omitted due to an insufficient number of respondents. Estimates may vary from other sources in part because respondents were not able to select multiple ethnicities/races.

School Vaccination Requirements

Overall support for school vaccination requirements has climbed from 54.4% in the winter to 61.3% in the summer. The largest shifts seem to be among older adults. Support continues to be slightly higher among nonparents (62.1%)—who are more likely to be older—than among parents (59.8%). This gap is driven primarily by mothers. Please note that the results in this section are for all adults, not just parents, except where noted.

Parenthood, Gender, and Age

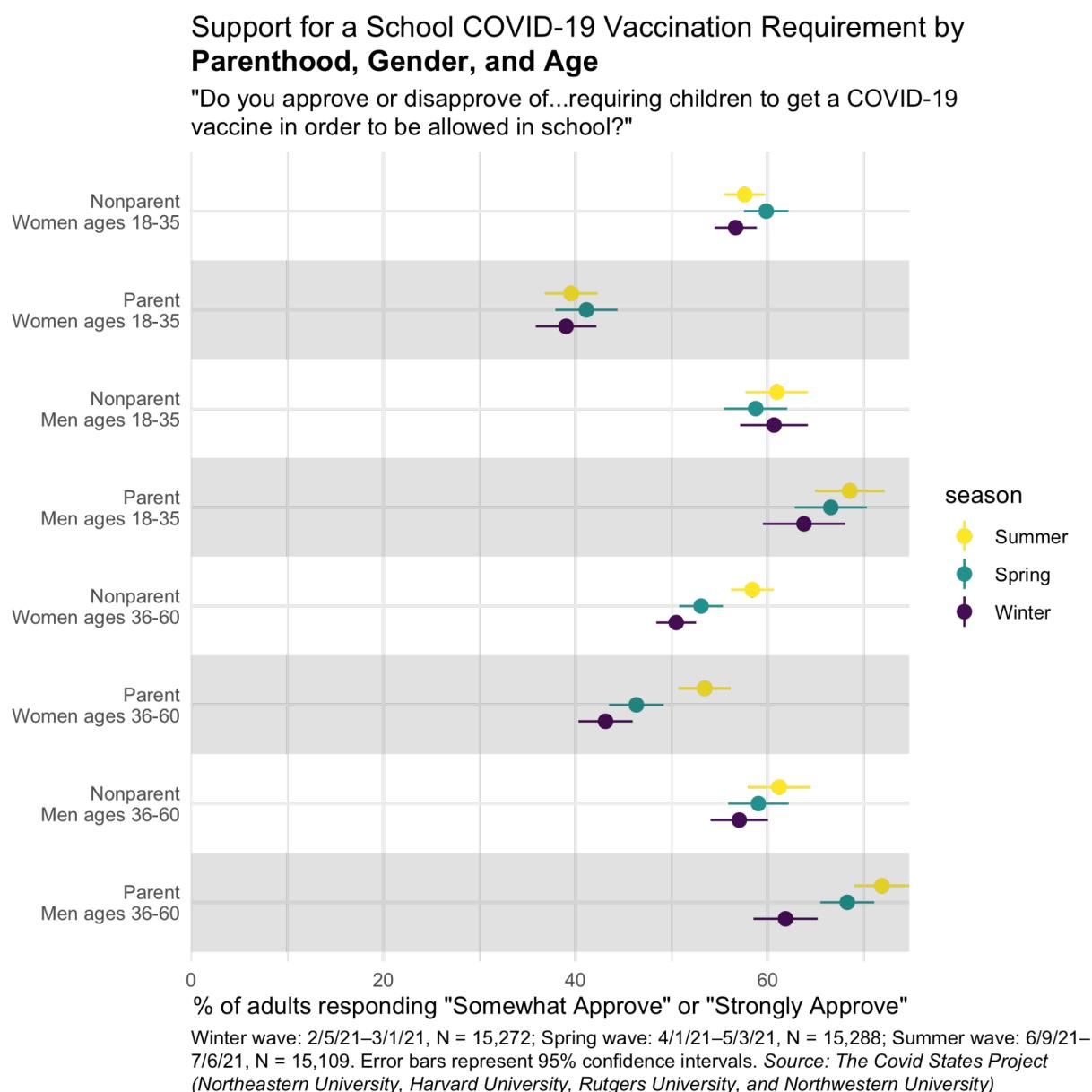


Figure 9: Support for a School COVID-19 Vaccination Requirement by Parenthood, Gender, and Age

Among nonparents, support for school vaccine mandates is fairly uniform across age/gender groupings (see Figure 9). Generally, there has been substantial movement among older respondents (parents and nonparents) in support of school vaccine mandates and relatively little change among younger respondents. Interestingly, women tend to be more supportive of school mandates if they are *not* parents while men tend to be more supportive if they *are* parents.

Party and Residence

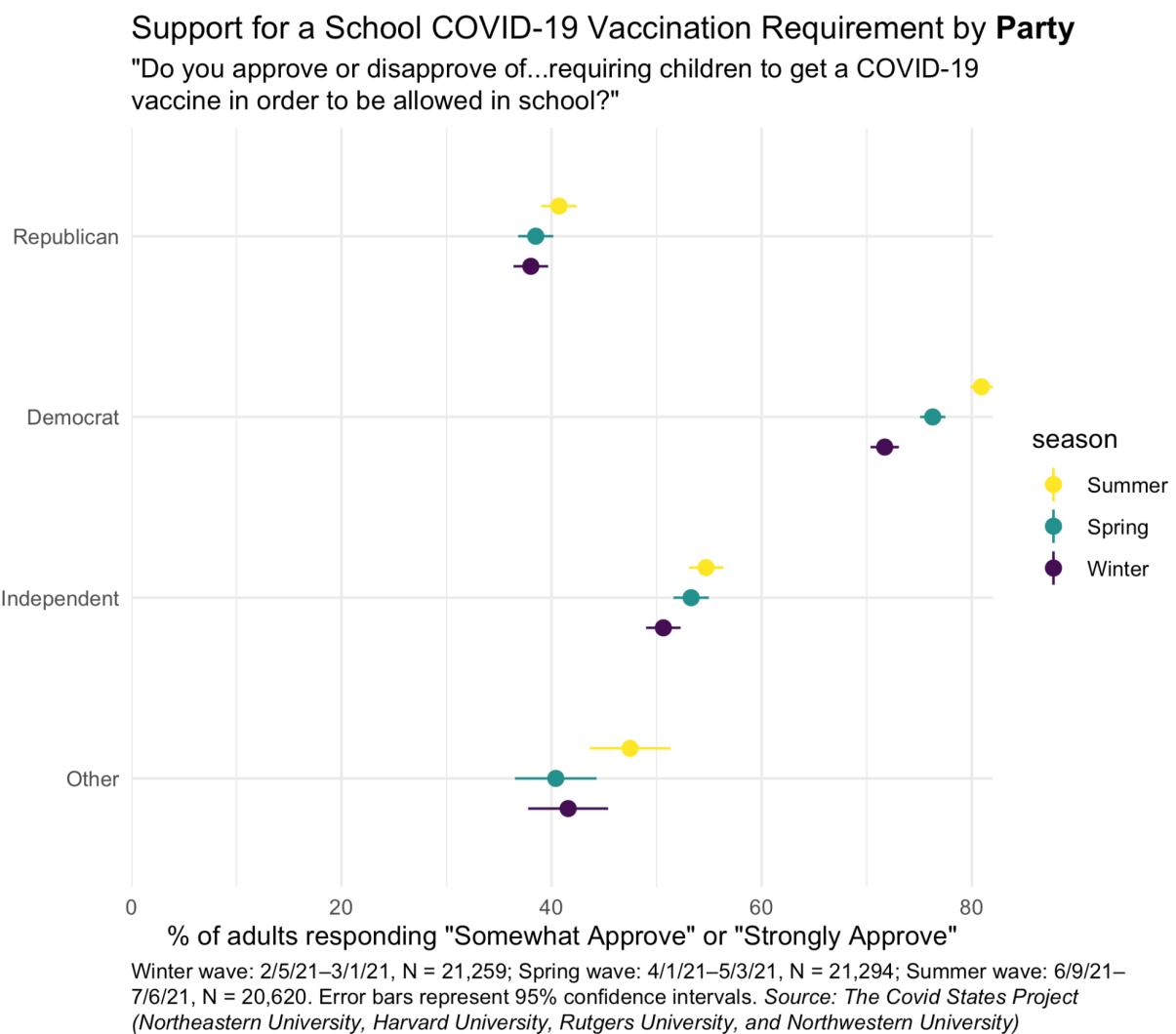


Figure 10: Support for a School COVID-19 Vaccination Requirement by Party

Support for school vaccine mandates has increased marginally among Republicans, shifting slightly from 38.0% to 40.7% since the winter (see Figure 10). However, it has increased much more among Democrats, going from 71.7% to 80.9%, thus widening the remarkable inter-party chasm to over **40 points** difference between the two parties.

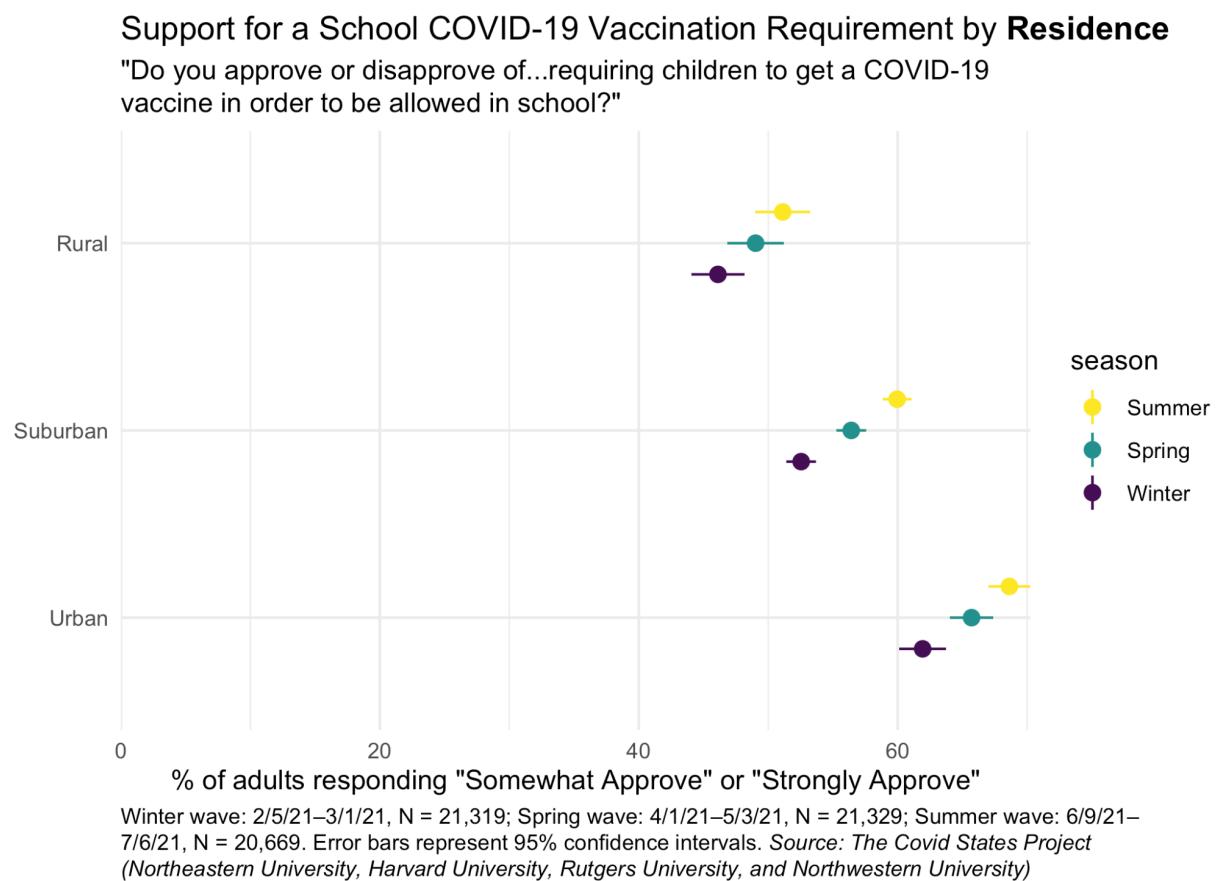


Figure 11: Support for a School COVID-19 Vaccination Requirement by Residence

There is more support for school vaccine mandates in urban areas (68.6%) than suburban and more support in suburban (60.0%) than in rural (51.1%). The trends over the past 5 months are similar, however, with support increasing fairly evenly across rural, suburban, and urban respondents (see Figure 11).

Since school policies in the U.S. tend to be set at the local level, we may see conflicts between local and state governments in the fall. For instance, in urban school districts in Republican-led states and in rural school districts in Democrat-led states, voters and local school boards may be on a collision course with their state legislatures and governors over school vaccination mandates.

Race

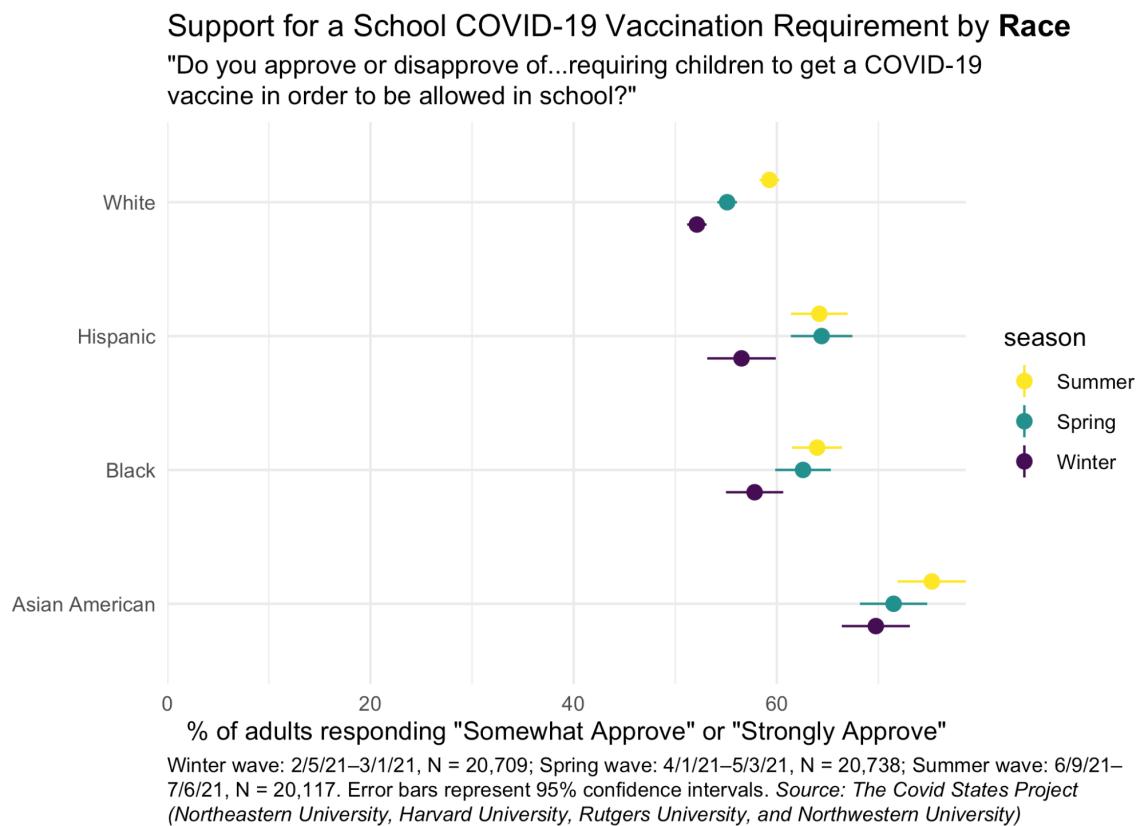


Figure 12: Support for a School COVID-19 Vaccination Requirement by Race

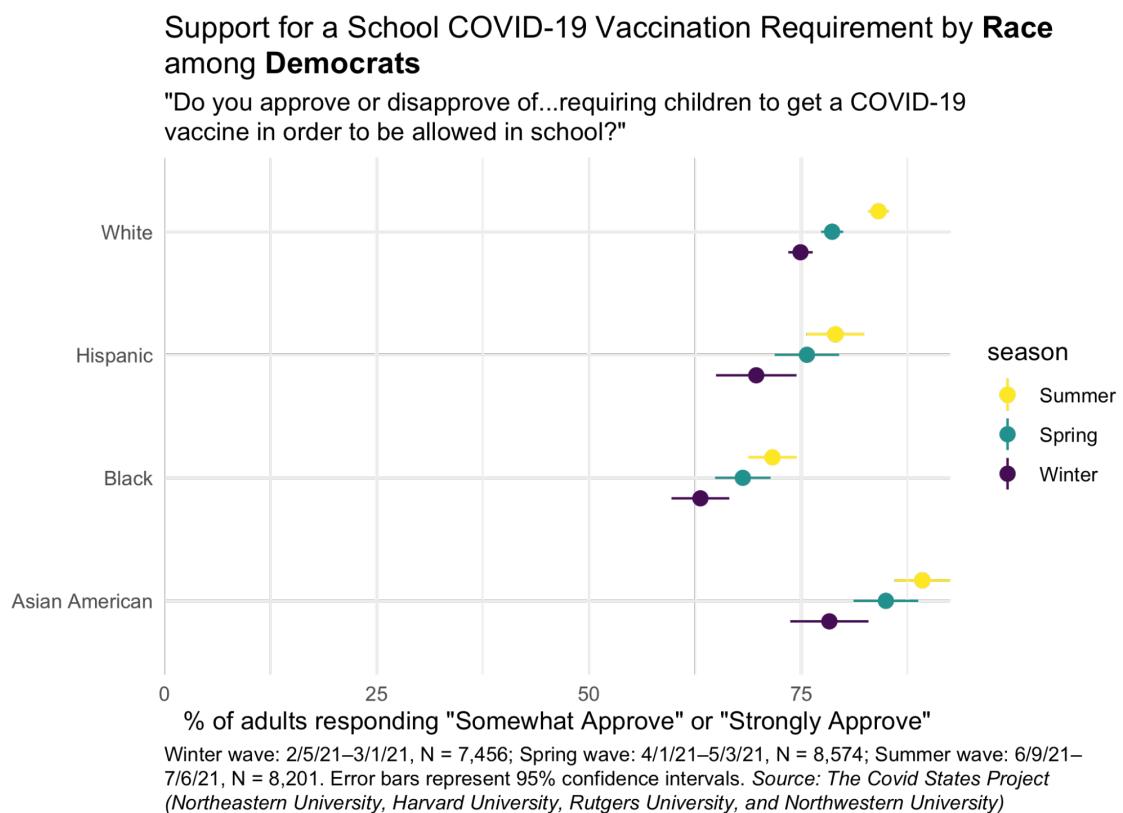


Figure 13: Support for a School COVID-19 Vaccination Requirement by Race and Democrats

Support for school vaccine requirements has increased in every racial/ethnic group (see Figure 12). Asian Americans have consistently had higher levels of support for vaccine mandates for schools at 75% compared to other racial/ethnic groups; and Whites Americans' support is the lowest at 59%.

Once again, while Black and Hispanic adults are more supportive of school mandates than White adults overall, this is primarily due to the fact that they are more likely to be politically left-leaning. When we compare attitudes within the Democratic Party in Figure 13, we find more support for school mandates among White Democrats than Black or Hispanic Democrats.

Socioeconomic Status

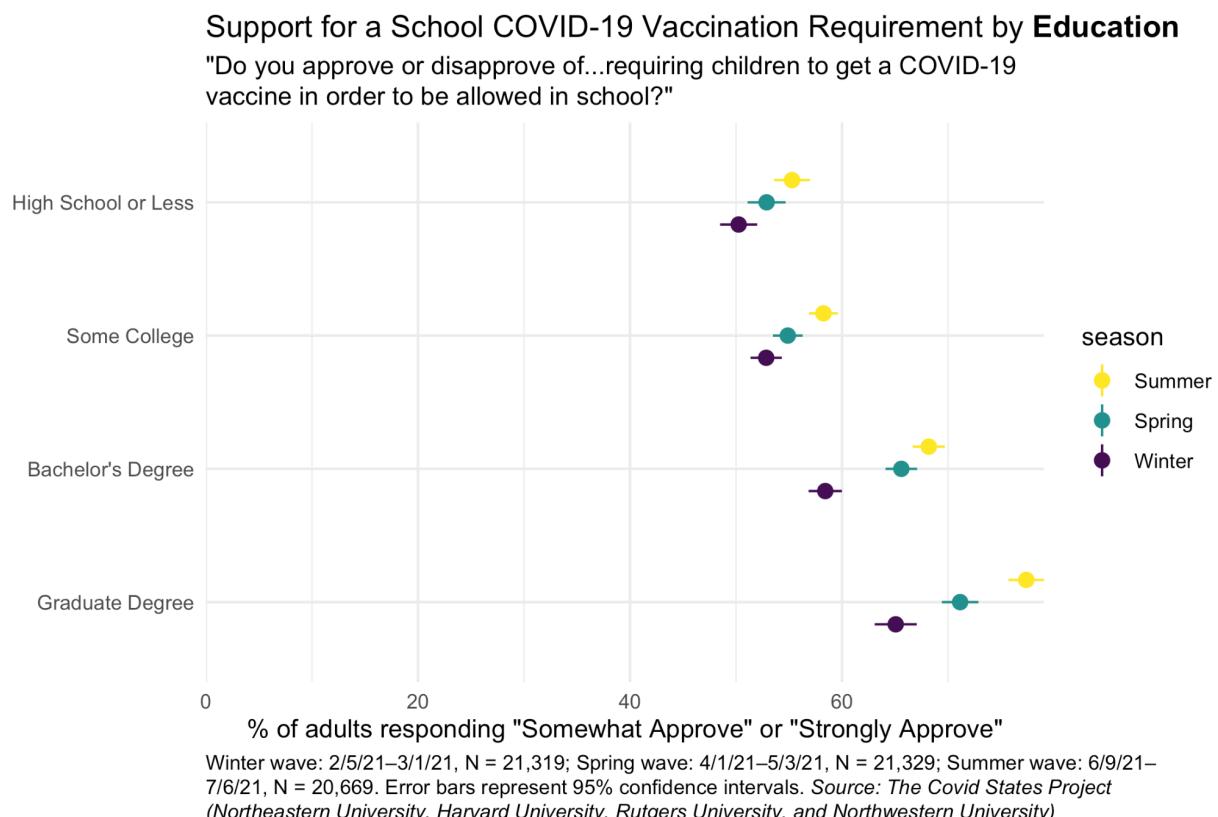


Figure 14: Support for a School COVID-19 Vaccination Requirement by Education

When we break down the adult population by education, we find that every group has become more likely to approve school vaccine mandates (see Figure 14). However, we see bigger increases at higher education levels. For example, for respondents with no more than a high school diploma, support has shifted 5 points from 50.2% to 55.3%, while for those with a graduate degree, support has jumped 12 points from 65.1% to 77.4%.

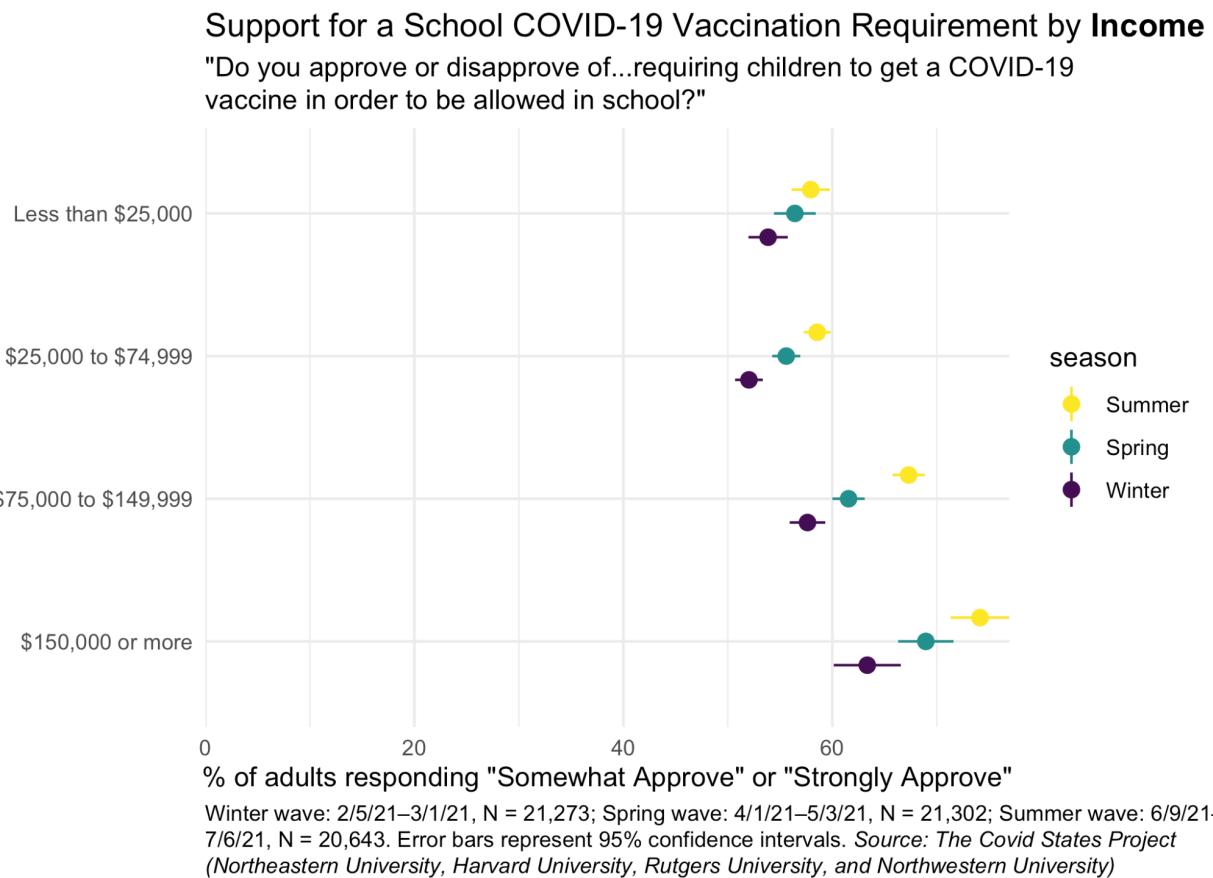


Figure 15: Support for a School COVID-19 Vaccination Requirement by Income

Similar to education, the biggest increase in support for school vaccine mandates has occurred at higher income levels (see Figure 15). For example, for respondents earning less than \$25,000, support has shifted only 4 points from 53.9% to 57.9%; while for those earning more than \$150,000, support has jumped 11 points from 63.3% to 74.1%. That said, higher income and higher education tend to go together. This begs the question: are vaccine attitudes explained primarily by income, education, or both?

When we analyze education and income simultaneously through multiple regression, we find that education appears to be the more important of the two. For instance, among respondents in the most common education category ("some college"), income makes little difference in support, whereas among respondents in the most common income category (\$25,000 to \$74,999), those with higher education are more likely to support school vaccine mandates.

Support Among Parents According to Child's Age

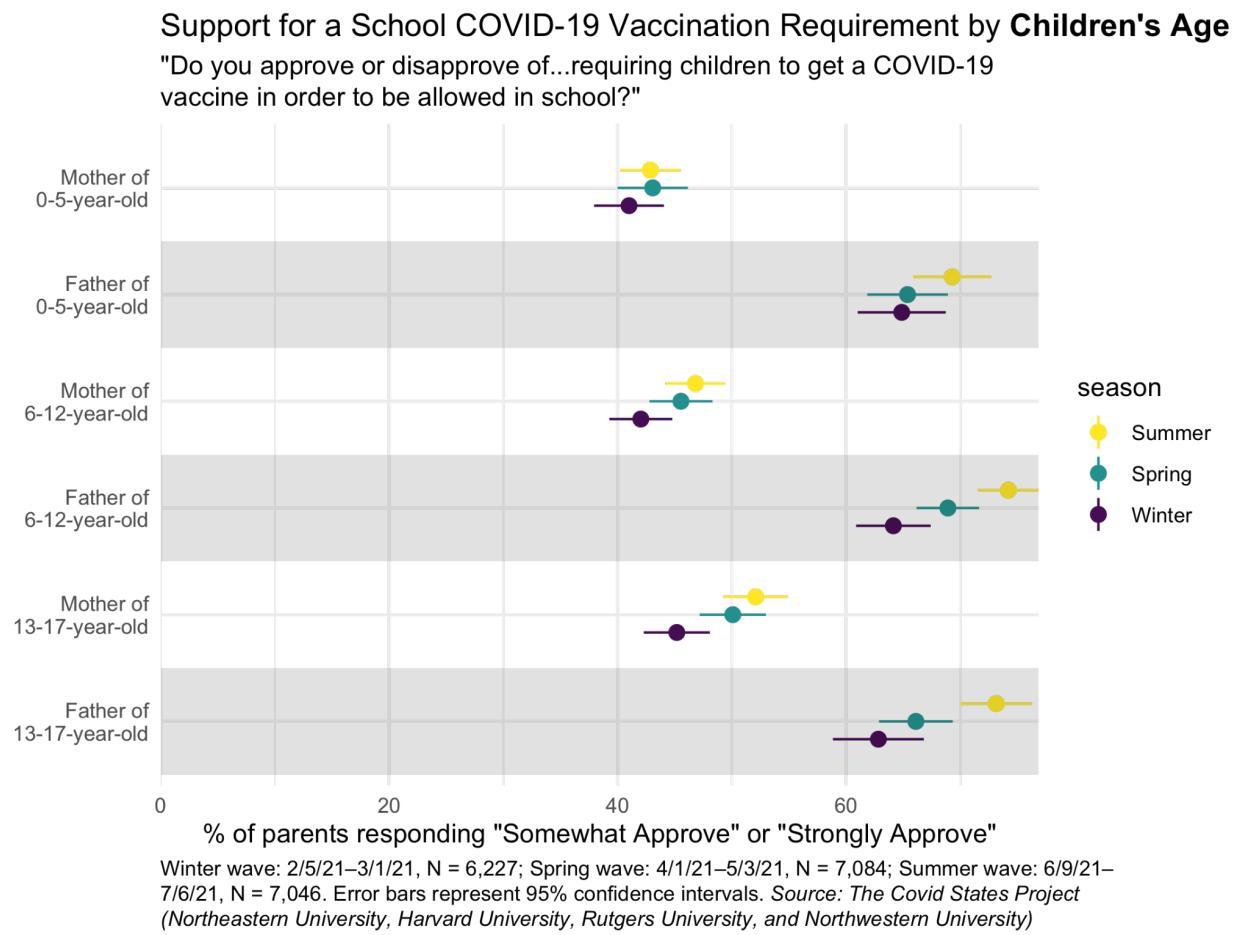


Figure 16: Support for a School COVID-19 Vaccination Requirement by Children's Age

Among parents, support for school vaccine mandates has grown markedly among both fathers and mothers of older children, particularly parents of teenagers (see Figure 16). This mirrors the trend for intent to vaccinate one's kids. Support among fathers of 0-to-5-year-olds has increased as well. Only mothers of 0-to-5-year-olds remain unmoved, hovering between 41% and 43% approval, with any changes falling within the margin of error.