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THE COVID STATES PROJECT: A 50-STATE COVID-19 SURVEY

REPORT #45: COVID-19 VACCINE HESITANCY AND RESISTANCE AMONG PARENTS

USA, March 2021

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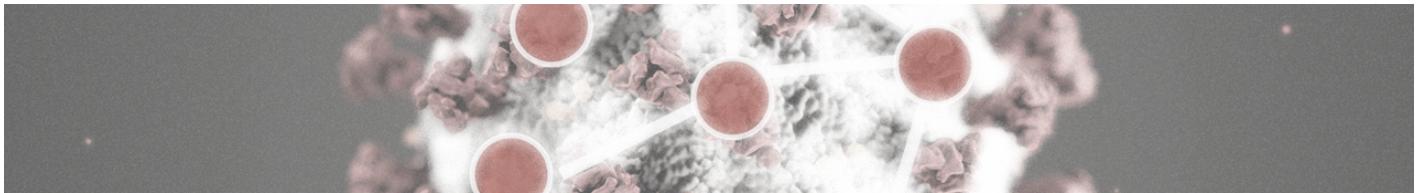
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Report of March 19, 2021, v.1

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

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COVER MEMO

Summary Memo — March 19, 2020

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From April 2020 through March 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:

Between February 5 and March 1, 2021, we surveyed 19,789 individuals across all 50 states plus the District of Columbia. 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. This was the latest in a series of surveys we have been conducting since April 2020, examining attitudes and behaviors regarding COVID-19 in the United States.

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Vaccine hesitancy and resistance among parents

Are parents more skeptical of coronavirus vaccines than other adults? A [2017 study](#) by the Pew Research Center found that parents—especially those with younger children—are generally more vaccine hesitant than non-parents. Moreover, in recent years, increasing numbers of parents have either [delayed or forgone entirely](#) having their children vaccinated against preventable diseases. The question thus arises as to whether this pattern applies to the COVID-19 vaccine.

In a December 2020 [report](#), we found that substantial majorities of parents supported prohibiting in-person teaching in K-12 schools, and requiring that children be vaccinated before returning to in-person classes. But does this translate into an intention among parents to vaccinate themselves? In a subsequent [report](#) (February 2021), we found stark divides in vaccine hesitancy by education, race, income, party, and other demographic factors. This raises the question of whether parents from all backgrounds are more skeptical than non-parents, or if vaccine skepticism among parents varies with party, race, or economic class. To address these questions, this report compares rates of vaccine hesitancy and resistance among respondents with or without children under age 18. A few highlights include:

- Parents are more vaccine hesitant and resistant than non-parents (in terms of willingness to vaccinate themselves) across all socioeconomic and demographic groups we compared. However, this pattern is largely driven by younger mothers, who are far more vaccine resistant than younger women who are not mothers. Older parents and fathers show little difference from their non-parent peers.
- Parents' willingness to vaccinate their children closely matches their willingness to get vaccinated themselves. Mothers are far more reluctant than fathers to do both.
- Parents without a 4-year college degree are far more likely to be vaccine hesitant and resistant than their counterparts with a 4-year college degree or higher. Among the more highly educated, parents and non-parents hold similar views.
- Parents who earn less than \$75,000 per year are far more reluctant to get vaccinated than their non-parents counterparts. The gap is far smaller in households earning over \$75,000 per year.
- Parents of all races are more reluctant than non-parents to get vaccinated themselves, but this gap is largest among African American parents, nearly three quarters of whom are vaccine hesitant or resistant.
- We see similar gaps between parents and non-parents across party and regional lines, and between urban, suburban, and rural residents.

Definitions

Vaccine resistance is defined as the proportion of individuals in a given category who indicate that they "would not get the COVID-19 vaccine" if made available to them. In our February 2021 survey, that figure overall is 21%. This includes 25% of parents and 20% of non-parents.

Vaccine hesitancy is defined as preferring to get the vaccine "after at least some people I know" or "after most people I know." In our February 2021 survey, about 31% of Americans report being vaccine-hesitant, including 36% of parents and 29% of non-parents.

1. Vaccine hesitancy and resistance by age, gender, and parental status

a. Mothers are less willing than fathers to vaccinate themselves or their children

We begin by assessing the willingness of parents to vaccinate themselves or the children once a vaccine becomes available to them (Figure 1). Here we find a substantial gender gap: **27% of mothers say they are extremely unlikely to vaccinate their children, compared to 14% of fathers.**

How likely are mothers and fathers to vaccinate themselves or their children?

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

Extremely likely Somewhat likely Neither likely nor unlikely Somewhat unlikely Extremely unlikely

Mothers

Self	26%	19%	16%	11%	28%
Children	26%	18%	18%	12%	27%

Fathers

Self	38%	24%	14%	7%	16%
Children	41%	23%	14%	8%	14%

National sample of parents, N=5650. Time period: 2/5/21-2/28/21.

Source: 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)

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Figure 1.

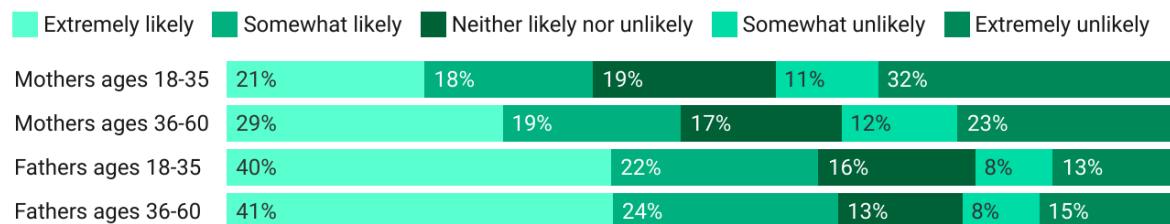
Less than half of mothers (44%) say they are likely to vaccinate their children, whereas nearly two-thirds of fathers (64%) report they are likely to do so. **Regardless of gender, parents' attitudes toward vaccinating themselves closely tracks with their attitudes toward vaccinating their children.** Nearly three-quarters (74%) of parents have the same response to both questions, with 11% expressing a greater willingness to vaccinate their children, and 15% expressing a greater willingness to vaccinate themselves.

b. Vaccine hesitancy and resistance are strongest among young mothers

Figure 2 further divides parents, this time by age cohort in addition to gender. **Younger mothers are substantially less willing to vaccinate their children than older mothers**, with 32% being resistant, compared to 23% of older mothers. Both younger and older mothers are less willing than fathers (13% of younger fathers and 15% of older fathers are vaccine resistant). Interestingly, among fathers, age appears to have little impact on vaccine hesitancy and resistance.

How likely are mothers and fathers of different ages to vaccinate their children?

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



National sample of parents, N=5650. Time period: 2/5/21-2/28/21.

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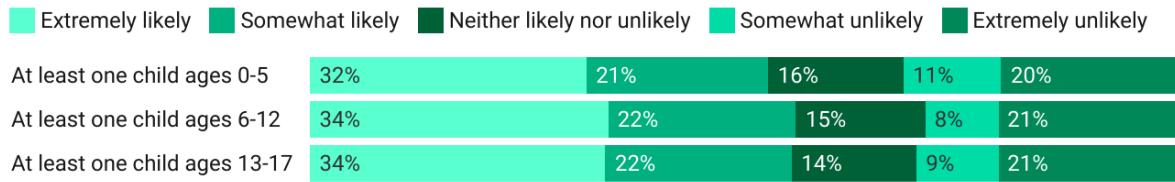
Figure 2.

c. Children's age matters less than mother's age

In contrast to [prior studies](#), we do not find parents of younger children to be more reluctant to see them vaccinated compared with parents of older children (Figure 3). That is, we see only minor differences in resistance or hesitancy across childrens' age cohorts. (The remainder of this report thus groups all school-age children together rather than breaking them out by age cohort.)

Parents' willingness to vaccinate their children appears unrelated to the age of the child

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



National sample of parents, N=5650. Time period: 2/5/21-2/28/21.

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Figure 3.

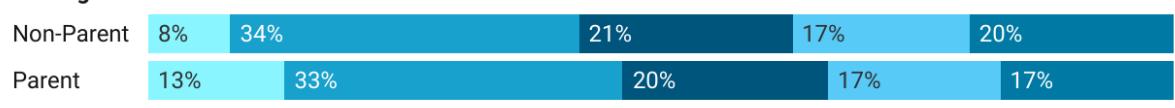
Vaccine Hesitancy by Age, Gender and Parental Status

If you were able to choose when to get a COVID-19 vaccine, would you get it...



Women ages 18-35

Men ages 18-35



Women ages 36-60



Men ages 36-60



National Sample, N=19789. Time period: 2/5/21-2/28/21.

Source: 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)

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Figure 4.

- d. Parents—especially young mothers—are far more skeptical of COVID-19 vaccines than non-parents

Figure 4 compares the willingness of parents and non-parents of similar ages to take the vaccine when it becomes available to them. **Our data suggest that the gap between parents and non-parents is driven by young mothers.** Although equal percentages of mothers and non-mothers ages 18-35 have already received the vaccine, **young mothers are nearly a third less likely to want to take the vaccine as soon as it becomes available to them, and nearly a third more likely to refuse to take it altogether.**

Among 36-60-year old women, mothers are somewhat less likely to want to be at the front of the line, but there is otherwise no meaningful difference in hesitancy or resistance between mothers and non-mothers. **Among men, we see no substantial gap between parents and non-parents.** If anything, fathers may be slightly *more* amenable to being vaccinated than non-fathers, and are more likely to have already been vaccinated.

2. Hesitancy and resistance by education

As we describe in [Report 43](#), vaccine resistance is heavily influenced by education, declining dramatically as education increases. This pattern holds for both parents and non-parents. In Figure 5, we see that **vaccine hesitancy and resistance are far greater among non-college-educated parents.** Among adults without a 4-year college degree, nearly three quarters (72%) are hesitant or resistant. In contrast, just over half (55%) of non-parents without a 4-year college degree are hesitant or resistant, though they are nonetheless much more hesitant and resistant than their more highly educated counterparts. These patterns are also borne out in a regression when controlling for age and other demographic factors (not shown).

Interestingly, **among adults with a 4-year college degree, the gap between parents and non-parents nearly disappears.** Parents and non-parents who hold a bachelor's degree or higher report resistance at statistically indistinguishable rates (11% vs. 10%). While non-parents with a bachelor's degree or higher are more likely to have already been vaccinated (25% vs. 19%), nearly equal proportions hope to be vaccinated as soon as possible (41% vs. 39%). **In sum, among respondents who have graduated from 4-year college, being a parent or not appears to have little effect on willingness to get vaccinated.**

Vaccine Hesitancy by Education and Parental Status

If you were able to choose when to get a COVID-19 vaccine, would you get it...

- Already vaccinated As soon as possible After at least some people I know have already received it
 After most people I know have already received it I would not get the COVID-19 vaccine

No Bachelor's Degree

Non-Parent	13%	32%	15%	17%	23%
Parent	6%	22%	17%	21%	34%

Bachelor's Degree or higher

Non-Parent	25%	41%	12%	12%	11%
Parent	19%	39%	19%	13%	10%

National Sample, N=19789. Time period: 2/5/21-2/28/21.

Source: 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)

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Figure 5.

3. Hesitancy and resistance by income

In general, as [Report 43](#) also describes, both hesitancy and resistance decline substantially as income increases. However, we also see large gaps between parents and non-parents (Figure 6). We find that gaps between parents and non-parents are most acute in the lower socioeconomic strata. **Parents and non-parents earning less than \$75,000 per year show markedly different trends in vaccine acceptance, while among higher-earning adults, parenthood seems to make little difference.**

Specifically, we see a 10 point gap in vaccine resistance between parents and non-parents earning less than \$75,000 annually. For hesitancy, the largest gap (11 points) emerges among respondents earning \$25,000-\$75,000 per year (29% of non-parents vs. 40% of parents). Both hesitancy and resistance shrink among parents and non-parents alike as we move up the income ladder, with only about one in ten in the highest income bracket -- parent or non-parent -- refusing to be vaccinated.

Vaccine Hesitancy by Parental Status and Income

If you were able to choose when to get a COVID-19 vaccine, would you get it...

Already vaccinated As soon as possible After at least some people I know have already received it
After most people I know have already received it I would not get the COVID-19 vaccine

Under 25k

Non-Parent	10%	30%	15%	18%	27%
Parent	22%	17%	19%	37%	

25-75k

Non-Parent	17%	36%	14%	15%	18%
Parent	8%	25%	18%	22%	28%

75-150k

Non-Parent	21%	39%	13%	14%	13%
Parent	16%	36%	19%	15%	14%

Over 150k

Non-Parent	25%	44%	11%	8%	11%
Parent	22%	43%	17%	10%	9%

National Sample, N=19789. Time period: 2/5/21-2/28/21.

Source: 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)
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Figure 6.

4. Hesitancy and resistance by race

In every racial/ethnic group we investigated, we see generally greater resistance and hesitancy among parents than non parents (Figure 7). While Asian Americans are the most likely group to embrace the vaccine overall, nearly half (48%) of Asian-American parents are hesitant or resistant, compared to 41% of Asian-American non-parents.

At the other extreme, Black Americans are least likely to embrace the vaccine, and have the widest parent/non-parent gap: **nearly three quarters of Black parents (73%) are vaccine hesitant or resistant, compared to 57% of Black non-parents. This rate of reluctance around vaccines is the highest in any demographic group we investigated.**

Vaccine Hesitancy by Parental Status and Race

If you were able to choose when to get a COVID-19 vaccine, would you get it...



White

Non-Parent	17%	35%	13%	14%	20%
Parent	12%	30%	17%	16%	24%

Hispanic

Non-Parent	11%	36%	16%	19%	18%
Parent	7%	29%	21%	18%	25%

Black

Non-Parent	14%	29%	14%	19%	24%
Parent	7%	21%	15%	28%	30%

Asian American

Non-Parent	17%	43%	17%	14%	10%
Parent	16%	36%	25%	14%	9%

National Sample, N=19789. Time period: 2/5/21-2/28/21.

Source: 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)
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Figure 7.

5. Hesitancy and resistance by party

While vaccine acceptance varies widely between political parties, with Democrats, (parents and non-parents alike) considerably less resistant or hesitant than Republicans or Independents, the differences between parents and non-parents are similar in magnitude across the parties (Figure 8).

Democratic parents are 11 percentage points more likely to be hesitant or resistant (combined) than Democrat non-parents (48% vs. 37%). This gap differs only slightly among Independents (12 percentage points) and Republicans (13 percentage points). **Thus, Republican parents are the least likely partisan group to embrace vaccines because both Republicans overall and parents overall tend to be more vaccine skeptical than their Democratic, Independent, and non-parent counterparts.** That said, if we focus only on resistance, we do see a smaller gap among Democrats (2 percentage points), compared to Republicans and Independents (6 and 8 points, respectively).

Vaccine Hesitancy by Parental Status and Party

If you were able to choose when to get a COVID-19 vaccine, would you get it...



Democrat

Non-Parent	18%	46%	14%	13%	10%
Parent	16%	38%	19%	15%	12%

Independent

Non-Parent	14%	32%	15%	18%	21%
Parent	7%	26%	19%	18%	29%

Republican

Non-Parent	18%	26%	12%	16%	28%
Parent	9%	21%	16%	19%	34%

National Sample, N=19789. Time period: 2/5/21-2/28/21.

Source: 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)

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Figure 8.

6. Hesitancy and resistance by geography

We explore the effects of geography in two ways, first by comparing urban, suburban and rural residents, and then by looking across regions of the country. **The primary takeaway from this analysis is that geography matters less than demographic or socioeconomic factors.** Beginning with the former (Figure 9), we find that **urban, suburban, and rural residents differ only modestly in their hesitancy and resistance by parental status.**

For resistance, urban residents are both least resistant and have the smallest gap (2 points) between non-parents and parents (15% vs. 17%). The resistance gaps for suburban and rural residents are both 6 percentage points, with parents once again being more resistant than non-parents in both cases (26% vs. 20% for suburban residents, and 27% vs. 33% for rural residents).

Vaccine Hesitancy by Parental Status and Urban Type

If you were able to choose when to get a COVID-19 vaccine, would you get it...

Already vaccinated As soon as possible After at least some people I know have already received it
After most people I know have already received it I would not get the COVID-19 vaccine

Rural

Non-Parent	14%	28%	13%	17%	27%
Parent	9%	26%	13%	19%	33%

Suburban

Non-Parent	17%	35%	13%	16%	20%
Parent	11%	27%	18%	18%	26%

Urban

Non-Parent	16%	39%	16%	14%	15%
Parent	12%	33%	20%	17%	17%

National Sample, N=19789. Time period: 2/5/21-2/28/21.

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Figure 9.

Turning to regional variations (Figure 10), **we find that the general pattern of higher rates of resistance and hesitancy among parents compared to non-parents emerges in every region of the country we explored, without exception.** That said, some regions have somewhat larger gaps than others. Beginning with resistance, in most areas, the gaps between parents and non-parents are small, on the order of 1 to 5 percentage points.

The exceptions are the Midwest, where parents are 10 points more resistant than non-parents (28% vs. 18%) and the Rockies, where parents are 9 points more resistant (30% vs. 21%). **Hesitancy gaps are somewhat larger, particularly in New England (12 points, 27% for non-parents vs. 39% for parents), the Midwest (9 points, 28% vs. 37%), and the West Coast (also 9 points, 30% vs. 39%).**

Vaccine Hesitancy by Parental Status and Region

If you were able to choose when to get a COVID-19 vaccine, would you get it...

- Already vaccinated As soon as possible After at least some people I know have already received it
- After most people I know have already received it I would not get the COVID-19 vaccine

West Coast

Non-Parent	15%	39%	15%	15%	16%
Parent	14%	31%	26%	13%	17%

Rockies

Non-Parent	16%	31%	15%	18%	21%
Parent	12%	24%	14%	20%	30%

Southwest

Non-Parent	18%	31%	14%	13%	25%
Parent	10%	31%	17%	16%	26%

Great Plains

Non-Parent	17%	32%	10%	14%	27%
Parent	12%	26%	14%	17%	31%

Midwest

Non-Parent	18%	35%	12%	16%	18%
Parent	8%	27%	16%	21%	28%

South

Non-Parent	15%	31%	14%	17%	23%
Parent	9%	28%	18%	18%	27%

Mid-Atlantic

Non-Parent	15%	39%	15%	16%	14%
Parent	14%	33%	18%	18%	18%

New England

Non-Parent	15%	44%	15%	12%	14%
Parent	12%	32%	21%	18%	16%

National Sample, N=19789. Time period: 2/5/21-2/28/21.

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Figure 10.