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THE COVID STATES PROJECT:

A 50-STATE COVID-19 SURVEY

REPORT #67: WHO ARE THE MASKED UNVACCINATED AND THE UNMASKED VACCINATED?

USA, October 2021

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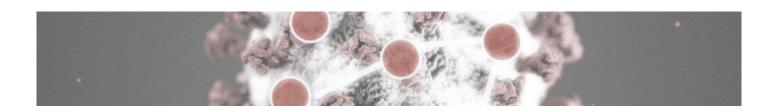












Report of October 15, 2021, v.1

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 — October 15, 2021

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From April 2020 through September 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 August 26 and September 27, 2021, we surveyed 21,079 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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Who are the Masked Unvaccinated and the Unmasked Vaccinated? Concern, Trust, and Demographic Features relating to Mask-wearing and Vaccination Status

Introduction

In mid-August 2021, the Centers for Disease Control and Prevention (C.D.C.) issued a recommendation for both vaccinated and unvaccinated Americans to begin wearing masks in public again, particularly in places experiencing outbreaks of COVID-19, driven by the Delta variant. Further compounding this concern is the lower propensity of unvaccinated individuals to wear masks. For example, a report from July 2021 found that unvaccinated Americans, on average, tended to wear masks less than vaccinated Americans by a margin of 25 percentage points.

Given the link between mask-wearing and vaccination, discussions of behaviors relating to COVID-19 often lump people into two categories: those who behave in ways that prevent the spread of COVID-19 and those who do not. However, doing so misses the complexity of who engages or doesn't engage in behaviors that stem the spread of COVID-19, or why they do so. Vaccination and mask-wearing are two different means to the same end: preventing infection. They are, in part, driven by the same factor, concern over infection. But they are also partial substitutes, aimed at the same target, preventing infection. In our data, we find that 30% of the population is either vaccinated and unmasked; or unvaccinated and masked. Indeed, most unvaccinated individuals report wearing masks. Understanding this complexity is significant in getting people vaccinated, and in getting people to wear masks - particularly those who are unvaccinated. In this report, we divide Americans into four categories and investigate the tendencies of each group: (1) those who report wearing masks and who are unvaccinated ("the masked unvaccinated"), (2) those who report wearing masks and who are vaccinated ("the masked vaccinated"), (3) those who report not wearing masks and who are unvaccinated ("the unmasked unvaccinated"), and (4) those who report not wearing masks and who are vaccinated ("the unmasked vaccinated").

For clarity: "Vaccinated" respondents said that they have received at least one dose of a COVID-19 vaccine. "Unvaccinated" respondents said that they have received no doses of any COVID-19 vaccine. "Masked" respondents claimed to "very closely" or "somewhat closely" followed health recommendations for mask wearing in the past week. "Unmasked" signifies that the respondent "not very closely" or "not at all closely" followed health recommendations for mask wearing in the week prior to filling out the survey.

In examining these four different groups, certain demographic patterns emerge. We outline these here:

Percent of Respondents in Each Mask-Wearing and Vaccination Status Category

Percent of respondents in each category, divided into those who very or somewhat closely follow mask-wearing guidelines (or did not), and those who have had at least one COVID-19 vaccine (versus no vaccine).



National sample, N = 21079, Time period: 08/26/2021-09/27/2021

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) www.covidstates.org • Created with Datawrapper

Figure 1: Percent of Respondents in Each Mask-Wearing and Vaccination Status Category.

The masked unvaccinated (19% of population)

The *masked unvaccinated* are, perhaps, the most interesting slice of the population. They are sufficiently concerned about COVID-19 to regularly wear a mask, but are unwilling to take the more powerful step to avoid serious infection by getting vaccinated. They are also consequential, because they make up most of the unvaccinated population. The masked unvaccinated are politically Independent (47%) more than any of the other 3 groups, and are more likely to be Independent than the entire sample (36%). They are also less likely to be Democrats (30%) compared to the general sample (39%).

African Americans (20%) are substantially over-represented among the masked unvaccinated compared to their proportion in the overall population, while non-Hispanic whites are underrepresented (55%). The masked unvaccinated also tend to be significantly younger, with 63% under the age of 45 (versus 47% in the general public). They are also less college-educated, with only 16% having a college degree compared to 31% of all respondents. Geographically speaking, this group is disproportionately Southern (45%) and less likely to be from the Northeast (14%). The unmasked unvaccinated are fairly reflective of the urban-rural proportions of the general population, though there is a slight rural skew (18% of the masked unvaccinated versus 14% of the sample). The masked unvaccinated are also more female (58%) and are lower in income compared to the general population.

The unmasked unvaccinated (10%)

Roughly half of *unmasked unvaccinated* participants identify as Republican (49%) or Independent (45%), far more than in the overall sample (25% Republican, 36% Independent). More of them are white (82%), compared to 64% of the general population. They are also younger: 57% are under the age of 45, compared to 45% of the overall sample. Only 16% of the unmasked unvaccinated have a college degree versus 31% of the full sample. Further, the unmasked unvaccinated skew Midwestern (29% versus 21% overall), and are much less likely to be from the Northeast (11% versus 18% overall). The unmasked unvaccinated are also around twice as likely to be rural (27%) compared to the aforementioned 14% of rural residents in the general US population. The unmasked unvaccinated are evenly split along gender and on average are lower in income than the overall sample.

The masked vaccinated (60%)

The *masked vaccinated* respondents are much more Democratic than the overall population (50% versus 39% of the full sample). Republicans make up only 18% of the group - less than the 25% of the general population - and Independents are 32% of the group. Racially they are less White (61%), and much more Asian (8%) compared to the full sample. They are also less rural and more urban, and slightly more Northeast and less Midwest than the overall population. They also are somewhat older than the overall population. One third of those who are both masked and vaccinated have some college education (33%) and very few (7%) have no high school education, which indicates a cohort that is more educated than the overall sample. Otherwise, demographics do not demonstrate significant differences. For example, respondents in this category are not disproportionately of any particular age range (12% were 18-24, 30% were 25-44, 33% were 45-64 and 25% were 65+ years old). Similarly, there is a nearly even gender split (52% women: 48% men). This group does, however, have a higher average income compared to the overall sample.

The unmasked vaccinated (11%)

The *unmasked vaccinated* skew much more Republican (43%, versus 25% of the full sample) and less Democratic (23%, versus 39% of the full sample). They are also disproportionately from the Northeast and Midwest relative to the overall distribution, but residing in less urban and suburban areas compared to the general population. Most notably, this group is overwhelmingly white (83%). The gender split skews toward men (55% to 45%), with the group notably including fewer young (18-24) respondents than the full sample (33% of unmasked vaccinated under 45 versus 46% under 45 overall).

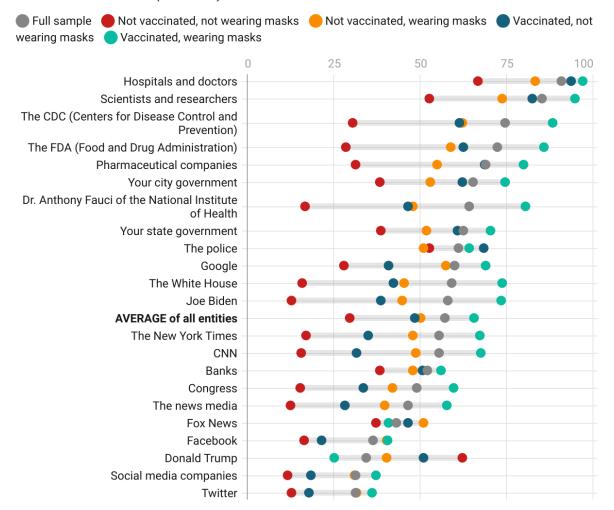
Interestingly, more respondents in this group relative to the full sample are college educated, with 12% holding graduate degrees, 23% college graduates, and only 7% without a high school education. The unmasked vaccinated are also generally higher in income, compared to the general population.

Comparative trust levels

Trust in Handling the Coronavirus Pandemic by Vaccination Status and Mask Use

Percent of people who said "A lot" or "some" in response to the following question:

How much do you trust the following people and organizations to do the right thing to best handle the current coronavirus (COVID-19) outbreak?



National sample, N = 21079, Time period: 08/26/2021-09/27/2021

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Figure 2: Trust in Handling the Coronavirus Pandemic by Vaccination Status and Mask Use.

Survey respondents were also asked about their trust in the ability of 22 different individuals and organizations to handle the COVID-19 outbreak. The unmasked unvaccinated consistently registered the lowest levels of trust that these individuals and organizations are "doing the right thing" to address the pandemic. The sole exception is Donald Trump, in whom this group expressed the highest level of trust of all the groups (although the share reporting trust in Trump is still marginally lower than their trust in hospitals and doctors).

In stark contrast, the masked vaccinated showed the highest levels of trust in all but three of the question subjects: Donald Trump (they were the least likely to trust his pandemichandling prowess), Fox News (they were slightly more likely to trust Fox's coverage than the unmasked unvaccinated), and the police (they exhibited slightly lower trust in the police than the unmasked vaccinated). Compared to these two groups, the other two - the unmasked vaccinated and the masked unvaccinated - averaged somewhere in the middle in terms of overall levels of trust in the various entities examined. The masked unvaccinated trusted various informational media (News media, CNN, Fox, social media, Twitter, Facebook, Google) more than the unmasked vaccinated, while the unmasked vaccinated trusted almost everything else more than the media.

Although similar, these percentages do not follow the exact pattern demonstrated by the average general interpersonal trust scores by vaccine status and mask-wearing compliance (see Figure 2): Respondents who are vaccinated claimed to be more trusting of people in general than those who are unvaccinated.

Across the sample, average trust regarding COVID-19 was highest for hospitals and doctors (91%), with the second highest rating given to scientists and researchers (85%). The lowest levels pertained to social media companies, including Twitter (31%) - while Facebook's score was slightly higher, at 36%. The one other technology company mentioned, Google, had an average trust score of 60%, which is lower than the named government institutions (e.g. the FDA, 72%, and CDC, 75%), except for Congress (49%). Banks were also trusted to handle the pandemic better than Congress (52%).

Regarding the news media in general, the average trust score was 47%, which was lower than the average trust levels for both *The New York Times* and CNN (56% each). Of the three individuals mentioned by name, Anthony Fauci had both the highest average trust score (64%) and the largest range in trust (from a low of 17% to a high of 81%); Joe Biden's average score was second, but slightly below that of The White House in general (58% and 59%, respectively). Finally, average trust in Donald Trump (35%) was only higher than social media companies (including Twitter).

Although city governments commanded slightly higher average trust than state governments (66% and 63%), trust in these institutions by the unmasked unvaccinated was about equal, and by the masked vaccinated was slightly weighted in favor of state governments. On average, both of these were trusted less than pharmaceutical companies (69%).

Average Interpersonal Trust by Vaccination Status and Mask Use

Respondents were asked the following question, with response options ranging from 1 (lowest trust) to 10 (highest trust):

Generally speaking, would you say that most people can be trusted, or that you can't be too careful in dealing with people? Please give your answer on a scale from 1 to 10, where one is "you can't be too careful" and 10 is "most people can be trusted"



National sample, N = 21079, Time period: 08/26/2021-09/27/2021

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Figure 3: Average Interpersonal Trust by Vaccination Status and Mask Use.

Concern

We also asked survey respondents about their level of concern over both personally catching the virus and their family catching the disease. For both personal and familial worry over COVID-19, the masked vaccinated were the most concerned, followed by the masked unvaccinated, then the unmasked vaccinated, and finally the unmasked unvaccinated were the least concerned. For all four groups, concern over their families catching COVID-19 was greater than concern about their own risk of infection by at least 10 percentage points, with the largest differences registered by both the unmasked groups (19 percentage points difference for both). The two masked groups were more closely clustered than the two unmasked groups, scoring within 12 percentage points of each other on the topic of personal concern, and within 9 percentage points of each other on family-related concern.

Concern Over Personally Getting COVID-19, by Vaccinated Status and Mask Wearing Compliance

Percent of respondents who responded "very concerned" or "somewhat concerned" to the following question:

How concerned, if at all, do you currently feel about the following?: Getting coronavirus yourself



National sample, N = 21079, Time period: 08/26/2021-09/27/2021

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Figure 4: Percent of Respondents Very or Somewhat Concerned About Getting COVID-19 Personally, by Vaccinated Status and Mask-Wearing Compliance.

Concern Over Family Getting COVID-19, by Vaccination Status and Mask Wearing Compliance

Percent of respondents who responded "very concerned" or "somewhat concerned" to the following question:

How concerned, if at all, do you currently feel about the following?: Family members getting coronavirus



National sample, N = 21079, Time period: 08/26/2021-09/27/2021

Source: 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) www.covidstates.org • Created with Datawrapper

Figure 5: Percent of Respondents Very or Somewhat Concerned About Family Getting COVID-19, by Vaccinated Status and Mask-Wearing Compliance.

Implications

While it is difficult to say with confidence why the individuals that comprise these four groups differ in both mask-wearing behaviors and vaccination status, there were notable patterns demonstrated by respondents. Both trust and concern over catching COVID-19 split the participant pool into two: Vaccinated groups tended to be more trusting, while masked groups tended to be the most concerned about infection.

These data suggest, in particular, that the masked unvaccinated have motivations and behaviors that might make them amenable to being vaccinated. These individuals are somewhat less trusting than the rest of the population of medical and scientific institutions; but still far more trusting of those institutions than they are of other entities/individuals we asked about. This might point to pathways for communication and persuasion regarding vaccination. Similarly, the greater concern each group expressed for their families contracting the coronavirus suggests that messages which emphasize the risk of passing the virus along to loved ones may prove more effective at encouraging vaccination and mask use than messages which emphasize threats to personal safety.

Appendix

	Not vaccinated, not wearing masks	Not vaccinated, wearing masks	Vaccinated, not wearing masks	Vaccinated, wearing masks	Full sample
Your city government	38.50%	53.10%	62.20%	74.70%	65.50%
Your state government	38.60%	51.90%	60.80%	70.50%	62.70%
The White House	16.00%	45.40%	42.40%	73.80%	59.10%
Congress	15.50%	42.10%	33.60%	59.80%	49.10%
Donald Trump	62.40%	40.40%	51.20%	25.10%	34.60%
Joe Biden	12.90%	45.00%	38.80%	73.60%	58.20%
The CDC (Centers for Disease Control and Prevention)	30.70%	62.20%	61.60%	88.40%	74.60%
Dr. Anthony Fauci of the National Institute of Health	16.90%	48.10%	46.70%	80.70%	64.30%
The FDA (Food and Drug Administration)	28.50%	58.90%	62.70%	86.00%	72.40%
Hospitals and doctors	66.90%	83.50%	93.90%	97.10%	91.10%
Pharmaceutical companies	31.30%	54.90%	68.80%	80.10%	69.20%
Scientists and researchers	52.80%	73.90%	82.50%	95.00%	85.40%
The police	52.70%	51.00%	68.50%	64.40%	61.10%
Banks	38.30%	47.90%	50.90%	56.00%	52.10%
The news media	12.50%	39.70%	28.40%	57.70%	46.50%
Social media companies	11.80%	31.20%	18.50%	37.40%	31.50%
CNN	15.80%	48.90%	31.60%	67.60%	55.50%
Fox News	37.40%	51.00%	46.70%	41.10%	43.30%
The New York Times	17.00%	48.10%	35.00%	67.50%	55.70%
Google	27.90%	57.50%	40.90%	69.10%	60.20%
Facebook	16.50%	40.40%	21.70%	40.70%	36.40%
Twitter	13.00%	31.70%	17.80%	36.30%	31.30%
AVERAGE of all entities	29.70%	50.30%	48.4%	65.60%	57.30%

Table 1: Percent of respondents who trust various groups "a lot" or "somewhat" regarding COVID-19.

	Not vaccinated, wearing masks	Vaccinated, wearing masks	Not vaccinated, not wearing masks	Vaccinated, not wearing masks	Full sample
Average General Trust Score (1- 10)	4.52	5.28	4.39	5.36	5.10

Table 2: Average general trust scores.

	Not vaccinated, not wearing masks	Not vaccinated, wearing masks	Vaccinated, not wearing masks	Vaccinated, wearing masks	Full sample
White	81.70%	55.40%	82.90%	60.80%	64.20%
Hispanic	8.70%	17.70%	8.70%	16.60%	15.20%
African-American	5.30%	20.30%	3.40%	12.20%	12.20%
Asian	1.70%	3.00%	3.10%	8.10%	5.90%
Other race	2.70%	3.60%	1.80%	2.30%	2.50%

Table 3: Percent of respondents in each vaccine status/masking category by race.

	Not vaccinated, not wearing masks	Not vaccinated, wearing masks	Vaccinated, not wearing masks	Vaccinated, wearing masks	Full sample
Some high school	14.10%	18.60%	6.60%	7.00%	9.90%
High School Graduate	37.30%	35.70%	26.10%	23.90%	27.80%
Some College	32.20%	29.50%	32.00%	31.80%	31.40%
Bachelor Degree	11.90%	10.90%	23.00%	22.50%	19.30%
Graduate Degree	4.50%	5.30%	12.30%	14.70%	11.70%

Table 4: Percent of respondents in each vaccine status/masking category by education level.

	Not vaccinated, not wearing masks	Not vaccinated, wearing masks	Vaccinated, not wearing masks	Vaccinated, wearing masks	Full sample
18 to 24	13.70%	14.40%	8.50%	12.10%	12.30%
25 to 44	42.50%	48.30%	24.40%	30.30%	34.30%
45 to 64	33.30%	29.00%	38.20%	32.80%	32.80%
65 and over	10.50%	8.20%	28.80%	24.80%	20.60%

Table 5: Percent of respondents in each vaccine status/masking category by age.

	Not	Not	Vaccinated,	Vaccinated,	Full
	vaccinated,	vaccinated,	not wearing	wearing masks	sample
	not wearing	wearing	masks		
	masks	masks			
Northeast	11.00%	13.70%	21.20%	19.40%	17.70%
Midwest	28.90%	18.30%	29.30%	18.80%	20.90%
South	37.20%	44.90%	28.20%	37.00%	37.50%
West	22.80%	23.20%	21.30%	24.80%	23.90%

Table 6: Percent of respondents in each vaccine status/masking category by region.

	Not	Not	Vaccinated,	Vaccinated,	Full
	vaccinated,	vaccinated,	not wearing	wearing masks	sample
	not wearing	wearing	masks		
	masks	masks			
Male	49.60%	41.60%	54.70%	48.10%	47.80%
Female	50.40%	58.40%	45.30%	51.90%	52.20%

Table 7: Percent of respondents in each vaccine status/masking category by gender.

	Not vaccinated, not wearing masks	Not vaccinated, wearing masks	Vaccinated, not wearing masks	Vaccinated, wearing masks	Full sample
Republican	48.60%	23.50%	43.20%	18.00%	25.00%
Democrat	7.00%	29.90%	22.70%	50.10%	38.90%
Independent/other	44.50%	46.70%	34.10%	31.90%	36.10%

Table 8: Percent of respondents in each vaccine status/masking category by party identity.

	Not vaccinated, not wearing masks	Not vaccinated, wearing masks	Vaccinated, not wearing masks	Vaccinated, wearing masks	Full sample
Rural	26.30%	16.80%	17.80%	10.70%	14.20%
Suburban	57.30%	52.90%	59.70%	55.50%	55.60%
Urban	16.40%	30.20%	22.50%	33.90%	30.20%

Table 9: Percent of respondents in each vaccine status/masking category by community type.

	Not vaccinated, not wearing masks	Not vaccinated, wearing masks	Vaccinated, not wearing masks	Vaccinated, wearing masks	Full sample
Under 15K	21.00%	29.50%	12.50%	15.70%	18.60%
15K to under 25K	14.70%	15.10%	10.20%	11.00%	12.00%
25K to under 35K	12.40%	13.20%	10.70%	12.00%	12.20%
35K to under 50K	16.80%	12.30%	12.90%	12.40%	12.80%
50K to under 75K	16.00%	14.50%	20.10%	18.10%	17.40%
75K to under 100K	7.90%	6.40%	13.90%	11.40%	10.30%
100K to under 150K	7.80%	5.80%	11.40%	11.50%	10.00%
150K to under 200K	1.80%	1.70%	4.50%	4.20%	3.50%
Over 200K	1.70%	1.60%	3.80%	3.60%	3.10%

Table 10: Percent of respondents in each vaccine status/masking category by income level.

	Not vaccinated, wearing masks	Vaccinated, wearing masks	Not vaccinated, not wearing masks	Vaccinated, not wearing masks	Full sample
Percent concerned about family getting COVID	75.50%	84.10%	35.80%	55.40%	74.40%
Percent concerned about personally getting COVID	62.30%	74.30%	16.70%	35.80%	61.90%

Table 11: Percent of respondents "very" or "somewhat" concerned about personally or their family getting COVID-19.