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THE COVID STATES PROJECT: **A 50-STATE COVID-19 SURVEY** REPORT #74: PARENTAL CONCERNS OVER COVID-19 VACCINES FOR KIDS

USA, December 2021

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Report of December 22, 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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Northeastern University
Network Science Institute

COVER MEMO

Summary Memo — December 22, 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 November 3 and December 2, 2021, we surveyed 22,277 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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Update on Parental Concerns Over COVID-19 Vaccines for Kids

In the U.S., children ages 5 and older are now eligible for COVID-19 vaccination, after the Pfizer-BioNTech vaccine received emergency authorization from the Centers for Disease Control and Prevention (CDC) in early November 2021. The vaccine had previously been authorized for youth ages 12-17 in Spring 2021. As of December 16, the CDC reported that more than 7 million vaccine doses had been administered to children ages 5-11, and [adverse events](#) of concern –those that were resolved with a mild clinical course– had only been identified in less than a dozen kids.

How are parents feeling about childhood COVID-19 vaccination in the face of new authorizations and relatively few adverse events of concern? Previously, we examined parents' concerns about vaccinating kids against COVID-19 in [June 2021](#) and [September 2021](#). In these earlier reports, we discovered that parents' top five concerns regarding childhood COVID-19 vaccination were: how new the vaccine is, whether the vaccine has been tested enough, whether the vaccine actually works, the short term side effects of the vaccine, and long term side effects of the vaccine. We found that these five parental concerns increased from June to September across several demographic groups. Further, in [a separate report](#) we also found that COVID-19 vaccination rates for minors have plateaued from September to November 2021.

Now, using survey data from November 2021, we provide an update on the prevalence of these five parental concerns regarding child COVID-19 vaccination, building on the descriptive [report about parental intentions](#) from November 2021 survey data. We also examine tendencies and shifts over time for subpopulations of parents, such as by political partisanship, race/ethnicity, gender and age, population density, education level, and likelihood of vaccinating their kids against COVID-19.¹

¹ Parent-reported likelihood of vaccinating their kids against COVID-19 was divided into two categories: 1) those "extremely" or "somewhat" unlikely to vaccinate their kids against COVID-19, and, 2) those "extremely" or "somewhat" likely to vaccinate their kids against COVID-19, or who said their kids are already vaccinated against COVID-19.

Takeaways

- The biggest concerns for parents have consistently been the **long term side effects of the COVID-19 vaccine on kids**, and **whether the COVID-19 vaccine has been tested enough for kids**; for every wave of our survey, over half of all parents mention these as major concerns.
- A handful of groups continued to hold elevated levels of certain concerns from September to November, such as Republican, Asian, and rural parents. Some others (like Democrats, Hispanics, older fathers) returned to the lower initial (June) levels for most concerns after the September spike. College educated parents have stayed at essentially stable (and low) levels of concern over time for almost all concerns examined. **Overall, these trends not only suggest that groups are polarized over COVID-19 vaccine concerns for kids, but also that certain groups are still polarizing over time** - particularly vaccine novelty and risk for long term side effects of the vaccine.
- Overall, parental concerns over the COVID-19 vaccine for kids were the lowest in June 2021, peaked in September 2021, and then decreased somewhat in November 2021.
- Republican, Black, and rural parents, as well as younger (under 35) mothers and parents who say they are unlikely to vaccinate their children, are among the groups with the greatest proportion of people expressing various concerns.
- College-educated and Democratic parents, as well as parents who will likely or who have already vaccinated their kids, have consistently been among the groups with the fewest expressing concerns. Fathers - particularly fathers 35 or older - also tend to have some of the lowest levels of parental concerns.

I. Overall Trends

Figure 1 below shows the percent of parents who said that each of the five considerations regarding the COVID-19 vaccine for kids was a “major concern,” for each survey wave (June, September, and November 2021). All concerns follow a general over-time trend where relatively lower levels of concerns were expressed in June, and then increased substantially in September. Finally, in the most recent wave, the percent expressing any concern fell somewhat, though not back to initial (June) levels.

Concerns over the long term side effects of the vaccine on kids, and whether the vaccine has been tested enough for minors, were consistently the most-cited concern. Parental concerns over vaccine effectiveness were less prevalent in June, but elevated to the third most commonly cited concern in September and November. Finally, of the five concerns examined here, vaccine novelty and short term side effects remain the least commonly expressed concern about childhood COVID-19 vaccines among parents.

Over Time Parental Concerns about Childhood COVID-19 Vaccination (All Parents)

Percent of parents saying whether each concern is a “major concern.”

Parent Respondents Only, Weighted. Wave 18 time period: 06/09/2021-07/07/2021; N = 4960. Wave 19 time period: 08/26/2021-09/27/2021; N = 4685. Wave 20 time period: 11/03/2021-12/3/2021; N = 5764.

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. Over Time Parental Concerns about Childhood COVID-19 Vaccination.

II. Concern Over Long Term Vaccine Side Effects

The most common parental concern is the long-term side effects of children getting the COVID-19 vaccine. This concern likely in part stems from prominent pieces of misinformation - such as the [false claim that COVID-19 vaccines cause infertility](#) - as well as whether the vaccine has received sufficient testing, which had similarly high levels of parental concern (see Figure 1).

Parental Concern Over COVID-19 Vaccine Long Term Side Effects

Percent of parents saying that COVID-19 vaccine long term side effects for kids is a major concern, over time.

Parent Respondents Only, Weighted. Wave 18 time period: 06/09/2021-07/07/2021; N = 4960. Wave 19 time period: 08/26/2021-09/27/2021; N = 4685. Wave 20 time period: 11/03/2021-12/3/2021; N = 5764.

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Figure 2. Parental Concern Over the COVID-19 Vaccine's Long Term Side Effects

Figure 2 shows that, overall, over half of parents have expressed concern over long-term COVID-19 vaccine side effects for all waves examined. In June, 50% said this was a major concern. This then jumped 15 percentage points - to 65% - in September, but fell back to 60% in November, following the general over time trend for all parental vaccine concerns.

Parents saying that they are unlikely to vaccinate their children were, as with all other concerns, the most likely to say that long term side effects of the vaccine were a major concern. Further, for all waves examined, over 80% said this was a major concern. At least 55% of Republican, Black, rural, and Independent parents, as well as younger (under 35) mothers, cited long term vaccine side effects for kids as a major concern for all waves.

On the other end of the spectrum, across all three waves, 50% or fewer of college educated and Democratic parents, as well as parents likely to vaccinate their kids against COVID-19 and older fathers, said long term effects of the COVID-19 vaccine were a major concern.

Over time, different groups followed different trends. The likelihood that parents held this concern increased from June to September and then remained elevated into November was the trend for several groups, including Republican, Black, rural, Asian, and younger (under 35) parents. Conversely, college educated parents and (to a lesser extent) older (35+) fathers grew increasingly likely to express this concern from June to September, and then fell back to near-June levels in November.

III. Concern Over Sufficient Vaccine Testing

Another common concern for parents regarding the COVID-19 vaccine is whether the vaccine has been tested sufficiently to allow safe administration to children. This has been the second most common major concern we examine, behind only long term side effects. In June 2021, a little over half of all parents said sufficient testing was a major concern, compared to 63% in September and 57% in November (Figure 3; see Table 2 in appendix for exact percentages). Therefore, though the proportion of all parents expressing concern has decreased from September to November, it remains elevated since June.

Once again, demographic subgroups vary significantly in how much they expressed concern over adequate testing of the COVID-19 vaccine for kids. Parents who said they are unlikely to vaccinate their kids had the highest proportion of individuals who said testing was a major concern (ranging from 82% to 88%). Alongside this group, at least 55% of Republican, rural, Black, Independent, and younger parents thought this was a major concern in all three survey waves.

Groups less likely to cite how well the vaccine has been tested as a major concern include Democratic and college-educated parents, parents who are likely to vaccinate (or who have already vaccinated) their children, and older fathers (35+). In the most recent (November) survey wave, less than half of individuals in these groups said vaccine testing is a major concern.

Parental Concern Over Whether the COVID-19 Vaccine Has Been Tested Enough

Percent of parents saying whether the COVID-19 Vaccine has been tested enough on kids is a major concern, over time.

Parent Respondents Only, Weighted. Wave 18 time period: 06/09/2021-07/07/2021; N = 4960. Wave 19 time period: 08/26/2021-09/27/2021; N = 4685. Wave 20 time period: 11/03/2021-12/3/2021; N = 5764.

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Figure 3. Parental Concern Over Whether the COVID-19 Vaccine Has Been Tested Enough

Some groups, such as Asian parents and older mothers (35+), had low levels of this concern in June (45% or less) but jumped 10 percentage points or more in September and November.

Once again, Figure 3 also shows that groups more likely to say testing the COVID-19 vaccine is a major concern - such as Republican parents and younger mothers (under 35) - have seen parental concern remain heightened over the past two waves, rather than dipping back down. A similar pattern emerged among Asian parents. This stands in contrast to the overall trend of an increase in percent of parents concerned from June to September, followed by a slight decrease in percent of parents concerned from September to November.

Conversely, among those groups lower in the proportion of parents expressing the concern about sufficient vaccine testing - such as Democratic parents and older fathers - we also find nearly the same percentage expressing concern in June and November (with a spike in September). Hispanic parents also followed this trend.

IV. Concern Over Vaccine Novelty

Concern over the novelty of the COVID-19 vaccine for kids remains sizable among all parents. In June 2021, 46% of all parents thought this was a major concern, versus 54% in September 2021 and 49% in November 2021 (see Figure 4; exact percentages shown in Table 3 of the appendix).

This overall figure masks significant variation among different subpopulations of parents. A large percentage of parents who said they were unlikely to vaccinate their children continue to have high levels of concern over coronavirus vaccine novelty, with 75-80% of these parents (depending on the survey wave) saying this was a major concern. Over 50% of younger mothers, Republican parents, Black parents, rural parents, and older mothers cite the newness of the vaccine as a major concern. In addition, among these groups the proportion concerned increased from June to September - much like the overall trend - but did not decrease significantly from September to November - unlike the overall trend.

The subpopulations with the lowest proportion of parents saying that COVID-19 vaccine novelty is a major concern include those who will likely vaccinate their kids (or have already), Democratic parents, college educated parents, and young fathers (under 35). For all waves, less than 50% of parents in these subgroups listed vaccine novelty as a major concern.

Further, for parents likely to vaccinate their kids, Democratic parents, urban parents, white parents, Hispanic parents, and older fathers, we saw increases in concern over the newness of the COVID-19 vaccine from June to November. However, the percentages fell back to near-June levels in November. This trend not only differs from the overall over-time trend for this concern, but also shows a recent and potential polarization of attitudes between these groups and the groups that tend to express greater concern (Republican parents, Black parents, rural parents, etc.).

Parental Concern Over the Novelty of the COVID-19 Vaccine

Percent of parents saying that it's a major concern that the COVID-19 vaccine is new, over time.

Parent Respondents Only, Weighted. Wave 18 time period: 06/09/2021-07/07/2021; N = 4960. Wave 19 time period: 08/26/2021-09/27/2021; N = 4685. Wave 20 time period: 11/03/2021-12/3/2021; N = 5764.

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Figure 4. Parental Concern Over the Novelty of the COVID-19 Vaccine

V. Concern Over Vaccine Effectiveness

Next, we look at the proportion of parents with major concerns about the effectiveness of the COVID-19 vaccine for kids (Figure 5; see Table 4 in the appendix for exact percentages). Again, overall, the proportion of parents expressing this major concern was at its lowest in June (44%), spiked in September (58%), and diminished somewhat in November (52%).

Parental Concern Over Whether the COVID-19 Vaccine Works

Percent of parents saying that whether the COVID-19 vaccine works for kids is a major concern, over time.

Parent Respondents Only, Weighted. Wave 18 time period: 06/09/2021-07/07/2021; N = 4960. Wave 19 time period: 08/26/2021-09/27/2021; N = 4685. Wave 20 time period: 11/03/2021-12/3/2021; N = 5764.

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Figure 5. Parental Concern Over Whether the COVID-19 Vaccine Works

Parents unlikely to vaccinate their kids were also the most likely to express concern over whether the vaccine works, though this proportion has been lower (68-78%) than for some of the other concerns we examine here. Once again, Black, Republican, rural, and young female parents were other groups with relatively high proportions of parents expressing concern over whether or not the vaccine works on kids.

Unlike the first two concerns, among groups more likely to cite concern over whether the vaccine is effective for kids, the percentages citing this concern declined slightly from September to November.

In addition, the groups least likely to express this concern are again college educated and Democratic parents, those likely to vaccinate their kids (or already have), and older fathers. In terms of over time trends, older fathers started low in June, increased in September, and fell back to June levels in November. College educated parents remained low throughout the three waves. Younger fathers and Asian parents initially had lower proportions of parents expressing this concern, but have jumped closer to the overall average in September and remained at this proportion in November. Otherwise, all other groups followed the general overall cross-wave trend.

VI. Concern Over Short Term Vaccine Side Effects

Many parents were also concerned about the short term side effects of the COVID-19 vaccine for kids. While [short term side effects](#) from getting vaccinated against COVID-19 can be unpleasant, many kids experience no side effects and less than a dozen experienced very rare side effects in kids younger 5-11, – [such as myocarditis](#) with a very mild clinical course– have been identified by the CDC’s [Vaccine Adverse Event Reporting System](#) after more than 7 million doses have been administered.

For all parents surveyed, 44% in June said short term side effects were a major concern, compared to 54% in September and 49% in November (Figure 6; see Table 5 in the appendix for exact percentages). Again, parents who said they were unlikely to vaccinate their children were the most likely group to be concerned about short term vaccine side effects. The percent in this group expressing major immediate side effect concerns has remained above 65%. Black parents and younger mothers also tended to have higher proportions (above 50% in all waves) of parents saying this was a major concern.

Conversely, college educated, Democratic, Asian, and white parents, as well as parents likely to vaccinate their kids and fathers, were groups less likely to say immediate vaccine side effects were a major concern. Across all of these groups, approximately 50% or fewer in each survey wave cited short term side effects as a major concern.

Among Hispanic, urban, and Democratic parents, as well as parents likely to vaccinate their kids and older fathers, the proportion saying this was a major concern increased from June to September, and then fell back to near-June levels in November. Conversely, among Independent, Asian, and college educated parents, as well as younger (under 35) fathers, the proportion of participants saying immediate side effects were a major concern increased from June to September and remained at similar levels in November.

Parental Concern Over COVID-19 Vaccine Short Term Side Effects

Percent of parents saying that COVID-19 vaccine short term side effects for kids is a major concern, over time.

Parent Respondents Only, Weighted. Wave 18 time period: 06/09/2021-07/07/2021; N = 4960. Wave 19 time period: 08/26/2021-09/27/2021; N = 4685. Wave 20 time period: 11/03/2021-12/3/2021; N = 5764.

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Figure 6. Parental Concern Over the COVID-19 Vaccine's Short Term Side Effects

Appendix: Additional tables

Table 1. Percent of parents stating the long term side effects of the COVID-19 vaccine are a “major concern.”

Group	Wave 18 (June 2021)	Wave 19 (Sept. 2021)	Wave 20 (Nov. 2021)	Group Category
Overall	50.12	65.41	59.49	Overall
Unlikely to Vaccinate	80.88	88.59	84.64	Likelihood of Vaccinating Kids
Likely to Vaccinate (or already did)	38.21	54.56	45.92	Likelihood of Vaccinating Kids
Democrats	43.51	59.34	49.62	Party ID
Republicans	54.77	72.66	71	Party ID
Independents	54.73	67.73	63.07	Party ID
No College	52.15	67.65	62.72	Education
College Educated	42.31	53.16	45.08	Education
Asian	47.83	62.28	59.4	Race
Black	57.48	70.73	68.92	Race
Hispanic	52.19	69.67	58.48	Race
White	47.86	63.46	57.3	Race
Younger (Under 35) Mothers	60.29	74.54	71.24	Age/Gender
Older (35+) Mothers	52.07	66.82	61.94	Age/Gender
Older (35+) Fathers	44.75	60.06	48.83	Age/Gender
Younger (Under 35) Fathers	44.79	60.22	58.1	Age/Gender
Urban	47.1	64.28	55.34	Location
Suburban	50.94	65.48	60.65	Location
Rural	56.16	67.97	66.27	Location

Note: Parent Respondents Only, Weighted. Wave 18 time period: 06/09/2021-07/07/2021; N = 4960. Wave 19 time period: 08/26/2021-09/27/2021; N = 4685. Wave 20 time period: 11/03/2021-12/3/2021; N = 5764. Numbers are percentages.

Table 2. Percent of parents stating it's a "major concern" whether the COVID-19 vaccine has been tested enough.

Group	Wave 18 (June 2021)	Wave 19 (Sept. 2021)	Wave 20 (Nov. 2021)	Group Category
Overall	50.67	62.56	57.17	Overall
Unlikely to Vaccinate	81.7	87.81	83.45	Likelihood of Vaccinating Kids
Likely to Vaccinate (or already did)	38.32	51.19	43.73	Likelihood of Vaccinating Kids
Democrats	43.03	55.43	46.47	Party ID
Republicans	57.53	69.39	68.19	Party ID
Independents	55.77	66.09	62.1	Party ID
No College	52.27	65.46	60.67	Education
College Educated	44.47	46.83	41.57	Education
Asian	45.2	55.95	57.54	Race
Black	57.32	69.37	63.23	Race
Hispanic	52.55	66.85	56.25	Race
White	48.7	60.44	55.61	Race
Younger (Under 35) Mothers	61.83	73.18	68.02	Age/Gender
Younger (Under 35) Fathers	55.51	64.17	60.61	Age/Gender
Older (35+) Fathers	40.85	55.01	43.74	Age/Gender
Older (35+) Mothers	41.66	59.27	54.74	Age/Gender
Urban	48.62	59.92	53.05	Location
Suburban	50.61	63.17	57.56	Location
Rural	57.55	66.88	67.25	Location

Note: Parent Respondents Only, Weighted. Wave 18 time period: 06/09/2021-07/07/2021; N = 4960. Wave 19 time period: 08/26/2021-09/27/2021; N = 4685. Wave 20 time period: 11/03/2021-12/3/2021; N = 5764. Numbers are percentages.

Table 3. Percent of parents stating that the newness of the COVID-19 vaccine is a “major concern.”

Group	Wave 18 (June 2021)	Wave 19 (Sept. 2021)	Wave 20 (Nov. 2021)	Group Category
Overall	45.59	53.83	48.9	Overall
Unlikely to Vaccinate	74.61	81.5	77.13	Likelihood of Vaccinating Kids
Likely to Vaccinate (or already did)	33.88	42.3	34.85	Likelihood of Vaccinating Kids
Democrats	38.75	46.8	39.36	Party ID
Republicans	52.75	62.36	60.31	Party ID
Independents	49.16	55.96	51.92	Party ID
No College	46.9	56.62	52.3	Education
College Educated	40.51	38.56	41.57	Education
Asian	34.34	45.91	50.15	Race
Black	50.16	59.84	57.45	Race
Hispanic	50.5	62.2	49.61	Race
White	43.71	50.44	46.11	Race
Younger (Under 35) Mothers	54.65	64	61.97	Age/Gender
Younger (Under 35) Fathers	38.79	46.99	42.42	Age/Gender
Older (35+) Fathers	44.66	54.39	47.18	Age/Gender
Older (35+) Mothers	50.3	55.92	54.93	Age/Gender
Urban	43.99	50.47	46.18	Location
Suburban	45.43	54.91	49.01	Location
Rural	51.57	58.01	56.11	Location

Note: Parent Respondents Only, Weighted. Wave 18 time period: 06/09/2021-07/07/2021; N = 4960. Wave 19 time period: 08/26/2021-09/27/2021; N = 4685. Wave 20 time period: 11/03/2021-12/3/2021; N = 5764. Numbers are percentages.

Table 4. Percent of parents stating it's a "major concern" whether the COVID-19 vaccine works.

Group	Wave 18 (June 2021)	Wave 19 (Sept. 2021)	Wave 20 (Nov. 2021)	Group Category
Overall	44.23	58.16	51.8	Overall
Unlikely to Vaccinate	68.04	78.31	71.42	Likelihood of Vaccinating Kids
Likely to Vaccinate (or already did)	35.46	49.77	41.45	Likelihood of Vaccinating Kids
Democrats	39.18	54.72	44.14	Party ID
Republicans	48.71	63.11	58.67	Party ID
Independents	46.72	58.22	55.36	Party ID
No College	45.31	60.93	55.08	Education
College Educated	40.08	43.04	37.22	Education
Asian	40.64	50.22	51.79	Race
Black	53.34	68.71	60.29	Race
Hispanic	46.72	63.3	55.99	Race
White	41.73	54.81	47.84	Race
Younger (Under 35) Mothers	51.38	66.31	58.47	Age/Gender
Older (35+) Mothers	46.11	60.19	55.54	Age/Gender
Older (35+) Fathers	38.89	49.48	39.67	Age/Gender
Younger (Under 35) Fathers	39.34	50.23	50.84	Age/Gender
Urban	41.86	56.68	49.54	Location
Suburban	44.34	57.39	51.71	Location
Rural	51.42	65.11	58.56	Location

Note: Parent Respondents Only, Weighted. Wave 18 time period: 06/09/2021-07/07/2021; N = 4960. Wave 19 time period: 08/26/2021-09/27/2021; N = 4685. Wave 20 time period: 11/03/2021-12/3/2021; N = 5764. Numbers are percentages.

Table 5. Percent of parents stating the immediate side effects of the COVID-19 vaccine are a “major concern.”

Group	Wave 18 (June 2021)	Wave 19 (Sept. 2021)	Wave 20 (Nov. 2021)	Group Category
Overall	43.96	54.28	48.81	Overall
Unlikely to Vaccinate	65.27	74.63	70.99	Likelihood of Vaccinating Kids
Likely to Vaccinate (or already did)	35.72	44.2	37.96	Likelihood of Vaccinating Kids
Democrats	40.38	50.96	41.91	Party ID
Republicans	43.69	58.37	54.3	Party ID
Independents	47.59	54.69	52.52	Party ID
No College	45.63	57.07	52.05	Education
College Educated	37.47	39.01	34.39	Education
Asian	40.29	48.69	48.18	Race
Black	53.52	66.87	62.04	Race
Hispanic	46.7	61.15	49.13	Race
White	41.01	50.08	45.18	Race
Younger (Under 35) Mothers	53.34	63.85	60.13	Age/Gender
Older (35+) Mothers	44.71	55.7	51.39	Age/Gender
Older (35+) Fathers	38.89	49.48	39.67	Age/Gender
Younger (Under 35) Fathers	40.48	47.76	45.84	Age/Gender
Urban	44.04	53.93	46.4	Location
Suburban	43.08	53.45	49.22	Location
Rural	47.75	58.57	53.93	Location

Note: Parent Respondents Only, Weighted. Wave 18 time period: 06/09/2021-07/07/2021; N = 4960. Wave 19 time period: 08/26/2021-09/27/2021; N = 4685. Wave 20 time period: 11/03/2021-12/3/2021; N = 5764. Numbers are percentages.