

Findings from the Understanding Coronavirus in America Tracking Study

COVID-19 Vaccine Hesitancy: Education Divide Widens

by Kyla Thomas, Jill Darling, and Alwyn Cassil

KEY FINDINGS

» The educational divide in willingness to get a COVID-19 vaccine is wider than earlier in the pandemic, with about 3 in 4 U.S. adults with at least a bachelor's degree either already vaccinated or planning to get vaccinated, compared with over half of less educated adults.

» Earlier in the pandemic, educational level played less of a role than race and ethnicity in people's willingness to get vaccinated, but educational level is now in most cases a greater factor.

» From knowing someone who has been vaccinated to perceptions of vaccine efficacy to the perceived risk of serious vaccine side effects, substantial educational gaps exist.

Compared to earlier in the pandemic, the educational divide in willingness to get a COVID-19 vaccination has widened. This is according to February 2021 findings from the nationally representative Understanding Coronavirus in America Tracking Survey conducted by the USC Dornsife Center for Social and Economic Research. As of February, more than 3 in 4 U.S. adults (76%) with at least a bachelor's degree had been vaccinated or planned to be vaccinated, compared to just over half of adults (53%) with less education. Earlier in the pandemic, educational level played less of a role in people's willingness to get a COVID-19 vaccine, the survey found.

But over time, and after controlling for other demographic factors, educational level is now in most cases a greater influence than race or ethnicity. Moreover, on a range of measures related to vaccine experiences and attitudes—from knowing someone who has been vaccinated to perceptions of vaccine efficacy to the perceived risk of serious vaccine side effects—substantial educational gaps exist. For example, people with at least a bachelor's degree report greater trust in the safety and effectiveness of the vaccine than those with less education. At the same time, racial and ethnic differences in willingness to get a COVID-19 vaccination persist, and in

some cases outweigh the effect of education. For example, the share of adults without a college degree who are unlikely to get vaccinated is about the same among Black and white adults—32% and 35%, respectively—but the share of adults without a college degree who are unsure about getting vaccinated is much higher among Blacks (23%) than whites (11%). Along with tailoring vaccine awareness campaigns to high-risk groups, the survey findings indicate policymakers should broadly emphasize the safety and effectiveness of COVID-19 vaccines to the public, especially people without college degrees.

Funders: Research reported in this brief was supported by the National Institute on Aging of the National Institutes of Health under award U01AG054580 and the Bill and Melinda Gates Foundation. The Dornsife Center for Economic and Social Research (CESR) conducts research and analysis to deepen the understanding of human behavior in a wide range of economic and social contexts, with the ultimate goal to improve social welfare by informing and influencing decision-making in the public and private sectors. CESR has offices in Los Angeles and Washington D.C. For more information, see us at cesr.usc.edu,

Contact us at cesrpress-l@usc.edu

The Willing, Unwilling, and Unsure

As of February 2021, and excluding those already vaccinated, more than half of all U.S. adults (56%) planned to get vaccinated for COVID-19, according to the Understanding Coronavirus in America Tracking Survey, an ongoing nationally representative internet-based panel survey of more than 6,000 people aged 18 and older (see Data Source). However, people's willingness to get a COVID-19 vaccination varies by race, ethnicity, age, education, income, gender and other demographic factors. Many health experts and advocates have stressed ensuring equity in vaccine access and overcoming COVID-19 vaccine hesitancy, especially among communities of color that have been disproportionately impacted by the pandemic.

While the survey finds that racial and ethnic differences in vaccine hesitancy and acceptance persist, level of education now has a stronger effect on people's willingness to get the vaccine than race, with the exception of Asians who—regardless of educational level—are more willing to get vaccinated than members of some other racial and ethnic groups. Overall, at the time of the survey, 76% of U.S. adults with at least a bachelor's degree had been vaccinated or planned to get vaccinated, compared to just over half of adults (53%) with less education—a 23 percentage point gap (Figure 1). In other words, a college degree is associated with a 43% increase in the likelihood that someone plans to get the vaccine—larger than the 32% difference in willingness to vaccinate observed between white and Black adults and the 3% difference observed between white and Latino adults.

However, in some cases, racial and ethnic differences in willingness to get a COVID-19 vaccination outweigh the effect of educational level. For example, the share of adults without a college degree who are unlikely to get vaccinated is similar among Blacks as it is among whites (32% and 35% respectively), but the share of adults without a degree who are unsure about getting vaccinated is much higher among Blacks (23%) than among whites (11%).

Vaccine Hesitancy and Equitable Access

In December 2020, the U.S. granted emergency authorization for two vaccines to prevent COVID-19—the Pfizer-BioNTech and Moderna vaccines, which both require two doses. Because of limited vaccine supply, frontline health care workers, residents and staff

76% of U.S. adults with at least a bachelor's degree have been vaccinated or plan get vaccinated, compared to just 53% of adults with less education.

of long-term care facilities, and older people have received priority for the vaccines. As of mid-February, more than 41 million U.S. residents had received one or more doses of a COVID-19 vaccine.¹

As U.S. vaccine supplies increase, ensuring that higher-risk people get vaccinated as quickly as possible is a public health priority.

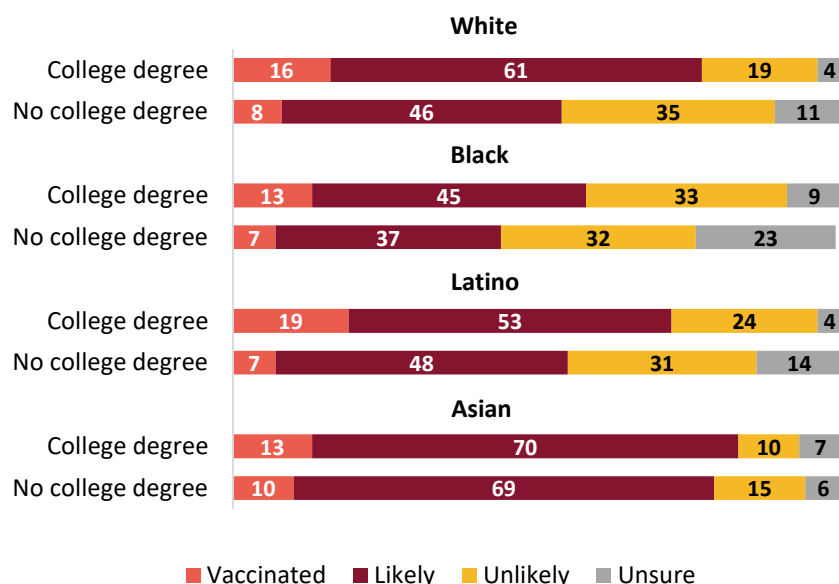


FIGURE 1: U.S. Adults Aged 18 and Older, Percent Vaccinated and Willingness to Get Vaccinated, by Race/Ethnicity and Education

Source: USC Dornsife Center for Economic and Social Research – Understanding Coronavirus in America Tracking Study. Wave 23. Early February 2021.

Racial and ethnic minorities, for example, face greater risks of becoming severely ill or dying from COVID-19, largely because they are more likely to have underlying health conditions and to live and work in spaces that increase their risk of infection. However, in the 23 states reporting vaccination data by race and ethnicity, almost without exception, Black and Latino people had received smaller shares of vaccinations compared to their shares of COVID-19 cases and deaths and compared to their proportions of the total population.² Likewise, people with lower levels of educational attainment are more likely to experience financial insecurity, live in overcrowded housing, work in

U.S. adults with a bachelor's degree are much more likely to know someone who has been vaccinated (69%) compared to those with less education (46%).

frontline jobs, and lack access to adequate health care—all factors that increase their likelihood of contracting or dying from COVID-19. While increasing physical access to vaccines in underserved communities is critical to more equitable vaccine distribution, policymakers also should consider other factors, such as education, that can affect people's willingness to get vaccinated.

Vaccine Attitudes and Education

Just as people with lower levels of education face greater risk of infection and death from COVID-19, the survey finds that they also are less likely to know someone who has been vaccinated and

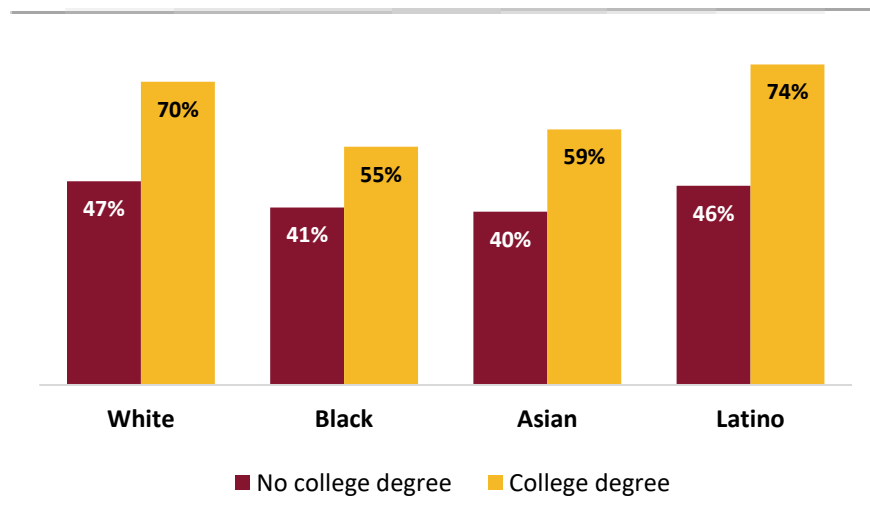


FIGURE 2: Percent Who Know a Friend or Family Member Who Has Been Vaccinated, by Race/Ethnicity and Education

Source: USC Dornsife Center for Economic and Social Research – Understanding Coronavirus in America Tracking Study. Wave 23. Early February 2021.

generally are less trusting of the vaccines—both factors that may influence their willingness to get vaccinated. On a range of measures related to vaccine experiences and attitudes, including perceptions of vaccine effectiveness and assessing the risk of serious side effects, people's level of education plays a big role, according to survey findings. For example, 54% of U.S. adults overall know a friend or family member who has been vaccinated, but U.S. adults with a bachelor's degree are much more likely to know someone who has been vaccinated (69%), compared to those with less education (46%). Differences by educational level also vary across racial and ethnic groups. For example, 74% of Latino people with a bachelor's degree know someone who has been vaccinated, compared to 46% of Latinos with less education (Figure 2). In contrast, only 55% of Black people with a bachelor's degree know someone who has been vaccinated, compared to 41% of those with less education.

Both of the currently available vaccines are highly effective, reducing the risk of COVID-19 by about 95%, with minimal side effects—the most common being pain at the site of injection.³ Yet, U.S. adults vastly underestimate the effectiveness of the COVID-19 vaccines and overestimate the chance for serious side effects from the vaccines. Overall, they believe there is a 30% chance that someone who has been vaccinated will still get COVID-19 and a 26% chance of serious side effects from the vaccine. On average, U.S. adults with at least a bachelor's degree view the vaccine as much safer and more effective than those with less education. For example, people with a bachelor's degree believe there is a 23% chance that a vaccinated person will still get COVID-19, while those with less education believe there is a 34% chance. Similarly, people with a college degree believe there is about a 15% chance for a serious side effect from the vaccine, while those with less education rate the risk more than twice

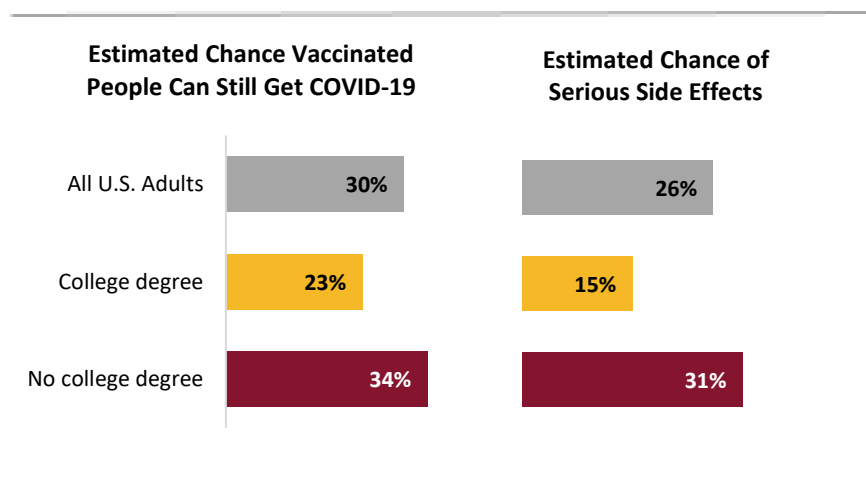


FIGURE 3: U.S. Adults, Estimates of Vaccine Effectiveness and Safety, by Education

Source: USC Dornsife Center for Economic and Social Research – Understanding Coronavirus in America Tracking Study. Wave 23. Early February 2021.

as high, at 31% (Figure 3).

Implications

For now, a limited supply of COVID-19 vaccine is the greatest factor hampering vaccine uptake by U.S. adults, with almost six in 10 saying they plan to get vaccinated. As vaccine supply increases, and once access inequities are addressed, the issue of overcoming vaccine hesitancy likely will move to the forefront of the policy agenda both nationally and in the states. Designing effective strategies to encourage people to get vaccinated will be key to increasing uptake and generating community protection against the coronavirus via widespread vaccination.

Earlier in the pandemic, race and ethnicity played a larger role in people's attitudes about a COVID-19 vaccine, but now differences in educational levels in many cases have a greater effect on people's willingness to get vaccinated. The most recent and almost real-time findings from the Understanding Coronavirus in America Tracking Study indicate that the educational gap in willingness to get vaccinated requires policy attention. As

such, policymakers should consider tailoring vaccine awareness campaigns that emphasize the safety and effectiveness of COVID-19 vaccines to the public, especially those without college degrees.

Endnotes

¹ CDC COVID Data Tracker, accessed February 19, 2021, at <https://covid.cdc.gov/covid-data-tracker/#vaccinations>.

² Kaiser Family Foundation, "Data as of February 1 on State Vaccinations by Race/Ethnicity," News Release, accessed February 8, 2021 at <https://www.kff.org/coronavirus-covid-19/press-release/data-as-of-february-1-on-state-vaccinations-by-race-ethnicity/>.

³ Centers for Disease Control and Prevention (CDC), COVID-19 Vaccination Clinical Resources for Each COVID-19 Vaccine, accessed February 19, 2021, at <https://www.cdc.gov/vaccines/covid-19/index.html>.

DATA SOURCE

This Data Brief is based on responses to the Understanding Coronavirus in America Tracking Survey. Respondents are members of The Understanding America Study (UAS), an internet panel conducted by the Dornsife Center for Economic and Social Research (CESR) at the University of Southern California. The UAS is a probability-based online panel that is nationally representative of U.S. adults aged 18 and older. More than 6000 members of the UAS answer tracking survey questions every two weeks. Graphs from the tracking survey are updated daily online at covid19pulse.usc.edu.

Findings are based on 6,231 tracking survey participants who answered questions between January 20 and February 16, 2021 (wave 23, UAS280).

The overall margin of sampling error for the entire sample of U.S. adults is +/-1 percentage point, and it is +/- 2 percentage points for each of the educational subgroups. Margins of sampling error may be higher for the reported race/ethnicity subgroups; these are provided in the study's topline and crosstab reports.

For more information on how the survey was conducted, as well as questionnaires, data files, and topline and crosstab reports, visit CESR's COVID-19 tracking survey pages at uasdata.usc.edu.