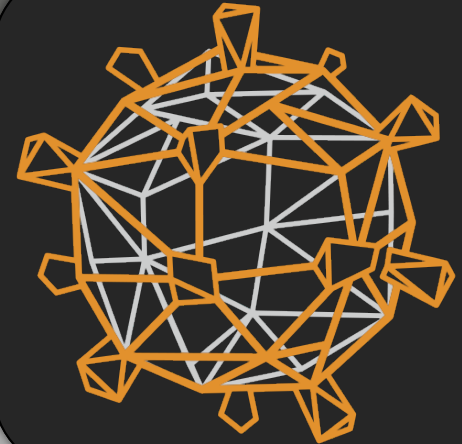


Science trust and distrust in America

Trust In Science: Understanding Trends
and Implications for Science Communication

National Academies of Sciences, Engineering, and Medicine
May 2024



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The context of trust

Outcomes of trust

Predictors of trust

Who do we trust?



TRUSTOR

TRUSTEE

DOMAIN

THE STATE OF THE NATION: A 50-STATE COVID-19 SURVEY

As covered by:

THE WALL STREET JOURNAL

The New York Times

The Atlantic

The Washington Post

USA TODAY

CBS NEWS

nature

npr

STAT

The Boston Globe

Latest report
REPORT #82

COVID-19 vaccine misinformation
trends



Recent media coverage

How many people died believing vaccine misinformation?

Washington Post February 22, 2022



Critical Race Theory: Last Week Tonight with John Oliver

HBO February 21, 2022



Northeastern University
Network Science Institute



HARVARD Kennedy School
SHORENSTEIN CENTER
on Media, Politics and Public Policy



HARVARD
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Northwestern
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The Civic Health and Institutions Project (CHIP50)

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Featured publications

FEBRUARY 15, 2024

Black Networks Matter The Role of Interracial Contact and Social Media in the 2020 Black Lives Matter Protests



JANUARY 11, 2024

Divisive or Descriptive?: How Americans Understand Critical Race Theory



Recent media coverage

Republican leaders' focus on Critical Race Theory is shaping their voters' opposition to it.

London School of Economic March 8, 2024



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Trust tracker: chip50.org/trust-in-institutions

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TRUST IN INSTITUTIONS

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TRUST IN INSTITUTIONS TRACKER - ALL

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

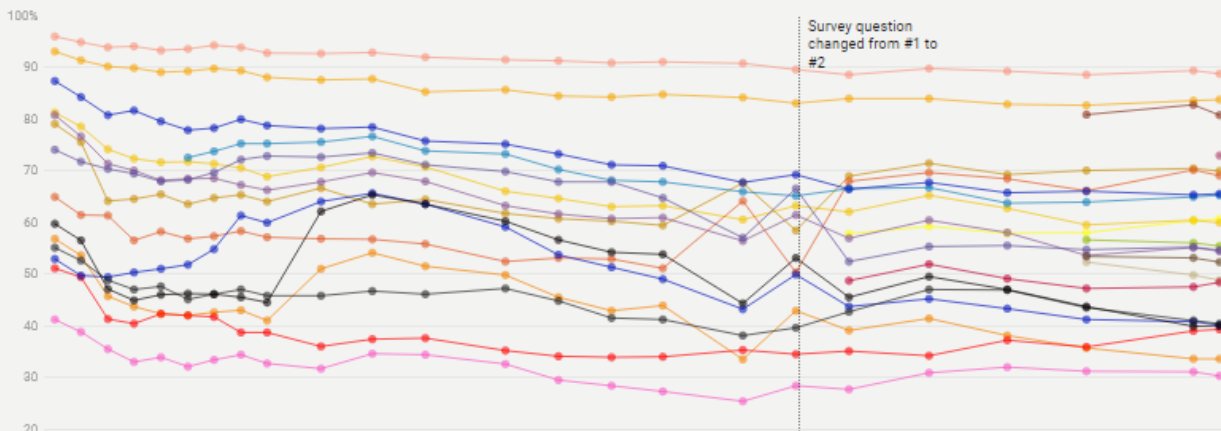
2. How much do you trust the following people and organizations to do what is right?

[Percent respondents who say "some" or "a lot"]

Click on the buttons below to see data by political party:

[Total](#)[Democrats](#)[Republicans](#)[Independent](#)

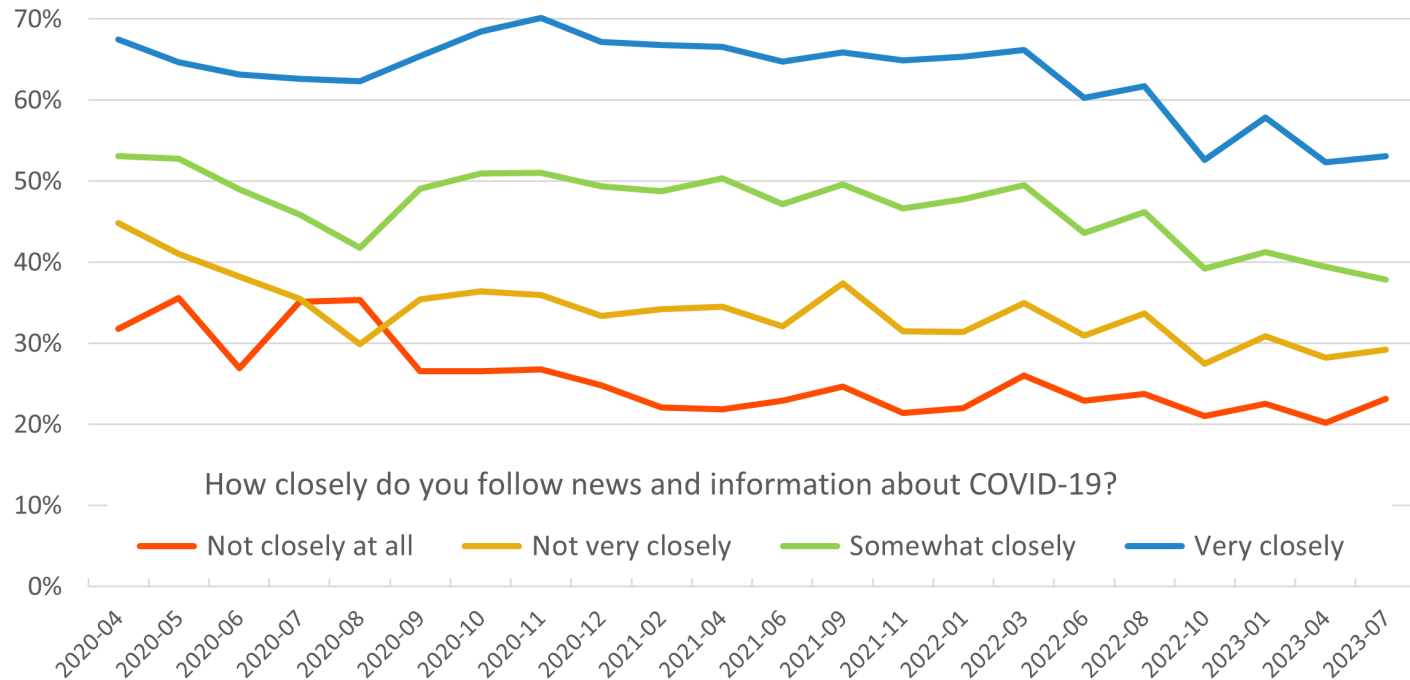
City government State government Congress White House Supreme Court Election System FBI FDA CDC Joe Biden Donald Trump Hospitals and doctors
Pharmaceutical companies Scientists and researchers Colleges and universities Police Military Criminal justice system Organized religion Banks News media Social media companies



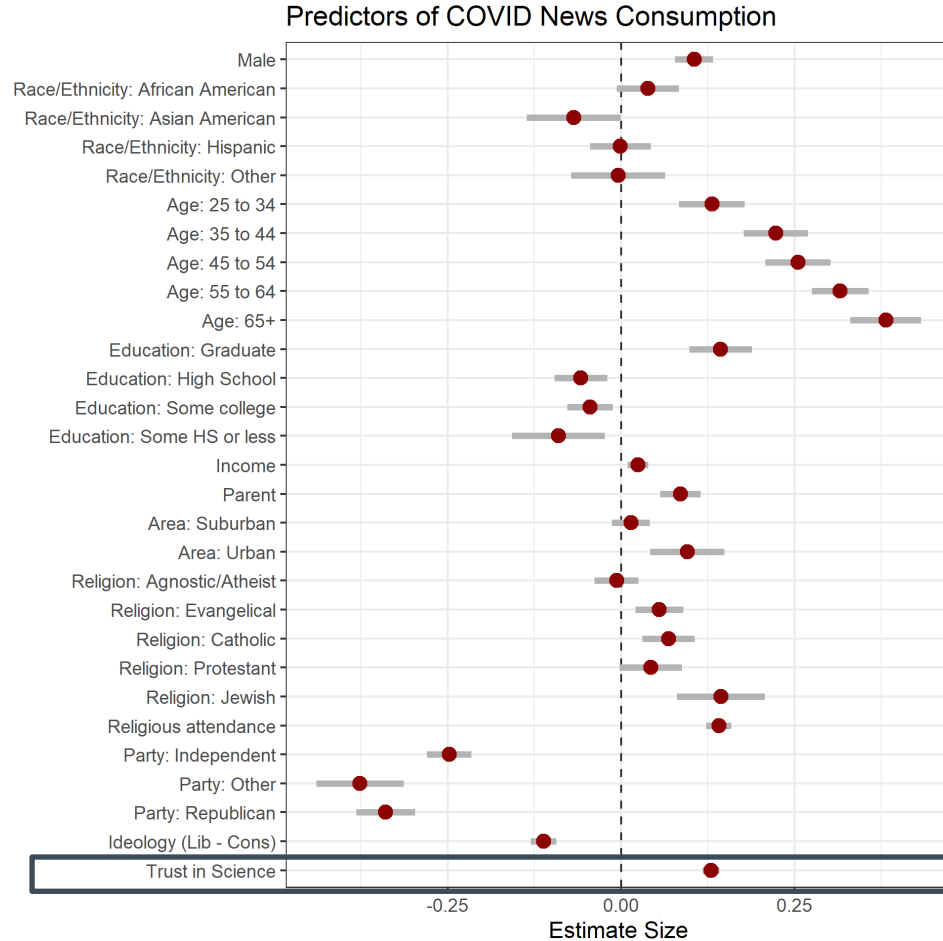
Trust in science, information, and behavior

Trust and news consumption over time

Percent respondents who trust science "a lot"
among Americans with different patterns of COVID news consumption

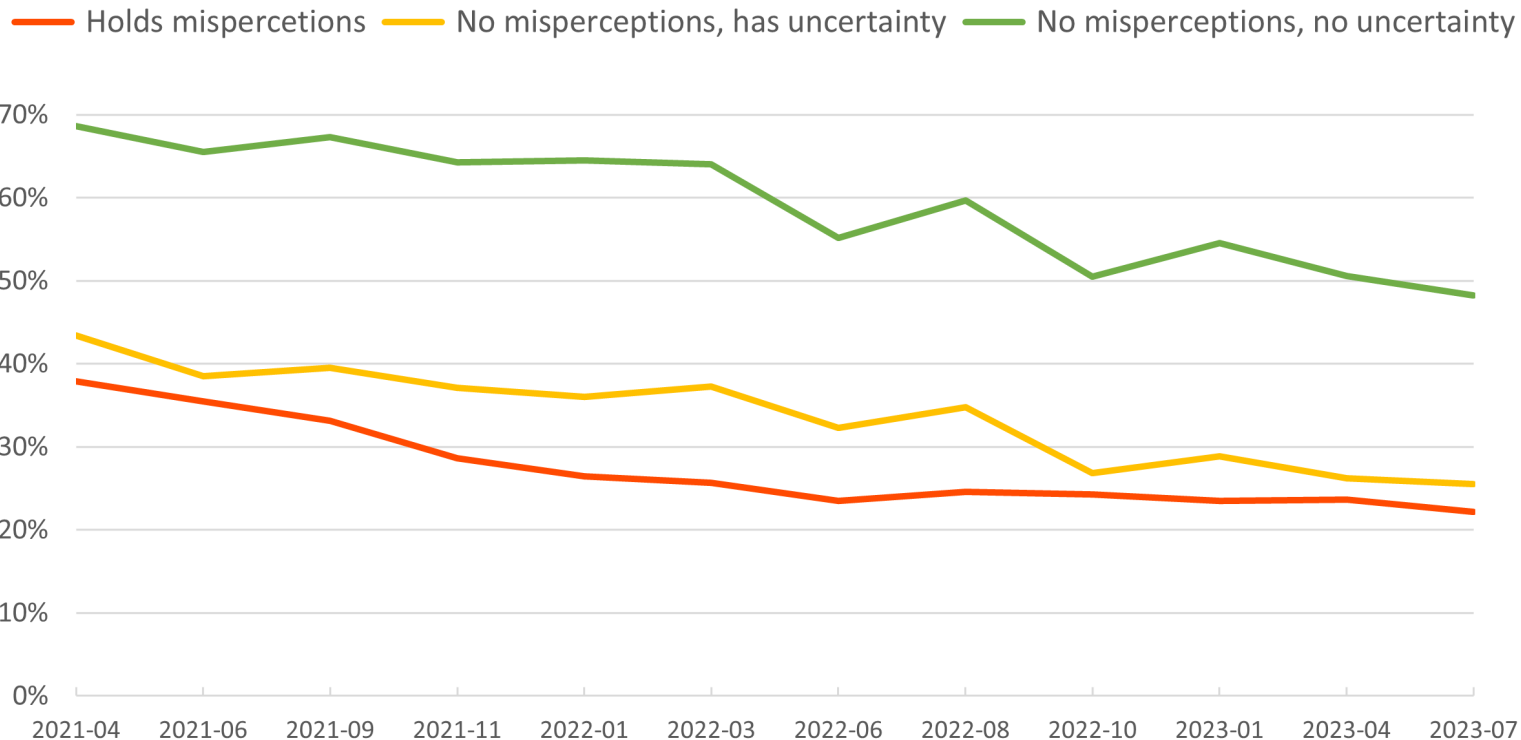


Predictors of COVID-19 news consumption



Trust and COVID misperceptions over time

Percent respondents who trust scientists and researchers "A lot" among Americans with different patterns of COVID vaccine misperceptions



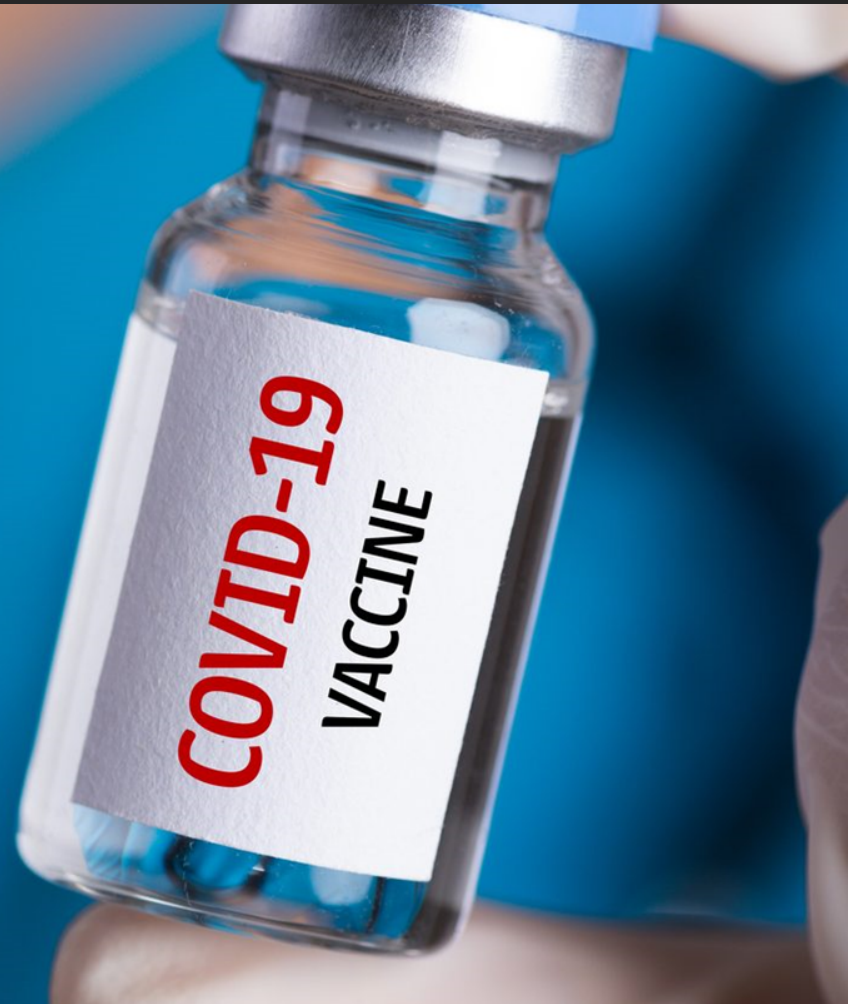
COVID-19 vaccine misperceptions

COVID-19 vaccines can alter people's DNA.

COVID-19 vaccines contain microchips that could track people.

COVID-19 vaccines contain the lung tissue of aborted fetuses.

COVID-19 vaccines can cause infertility, making it more difficult to get pregnant.

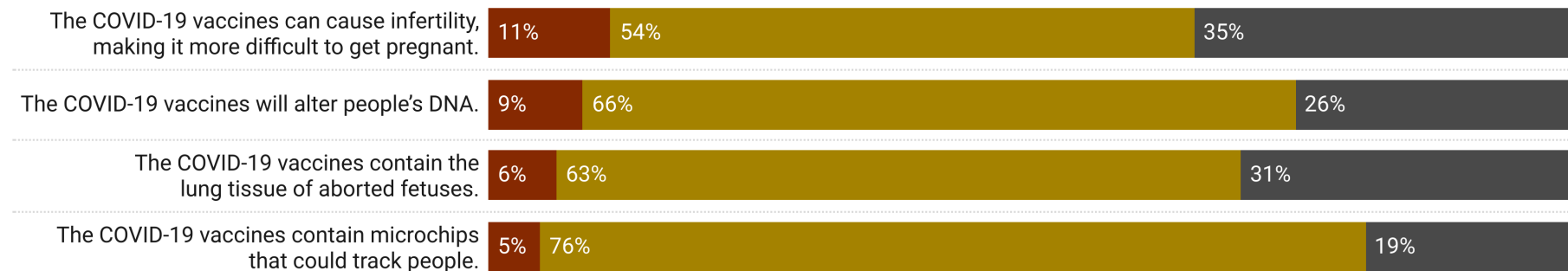


Misperceptions about COVID-19

Misperceptions about COVID-19 vaccines among Americans

[Percent respondents who believe each false statement is accurate, inaccurate, or say they are not sure]

■ Accurate ■ Inaccurate ■ Not sure

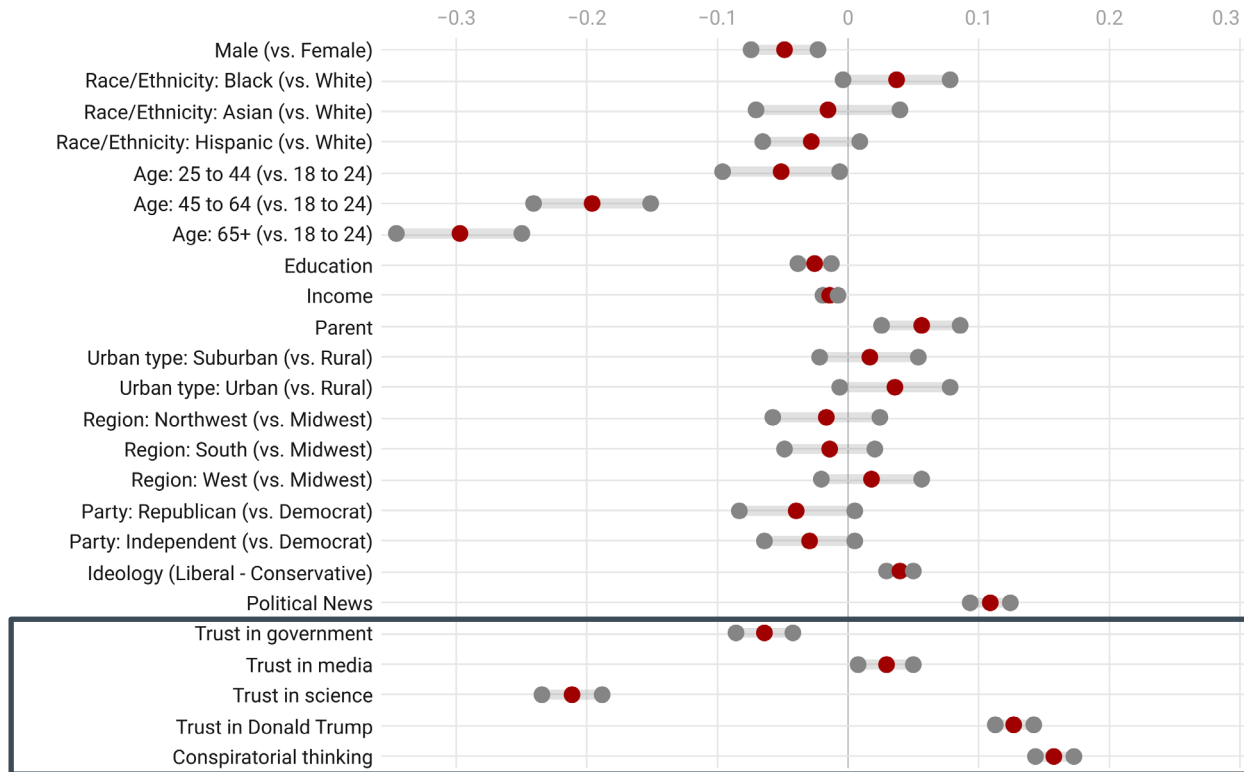


National sample, N = 14,430, Time period: 03/02/2022-04/04/2022

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

Predictors of holding vaccine misperceptions: the role of trust

The numbers are coefficients from OLS regressions. Estimates presented in red, confidence intervals in gray.
Outcome variable: number of vaccine misperceptions held by respondents.



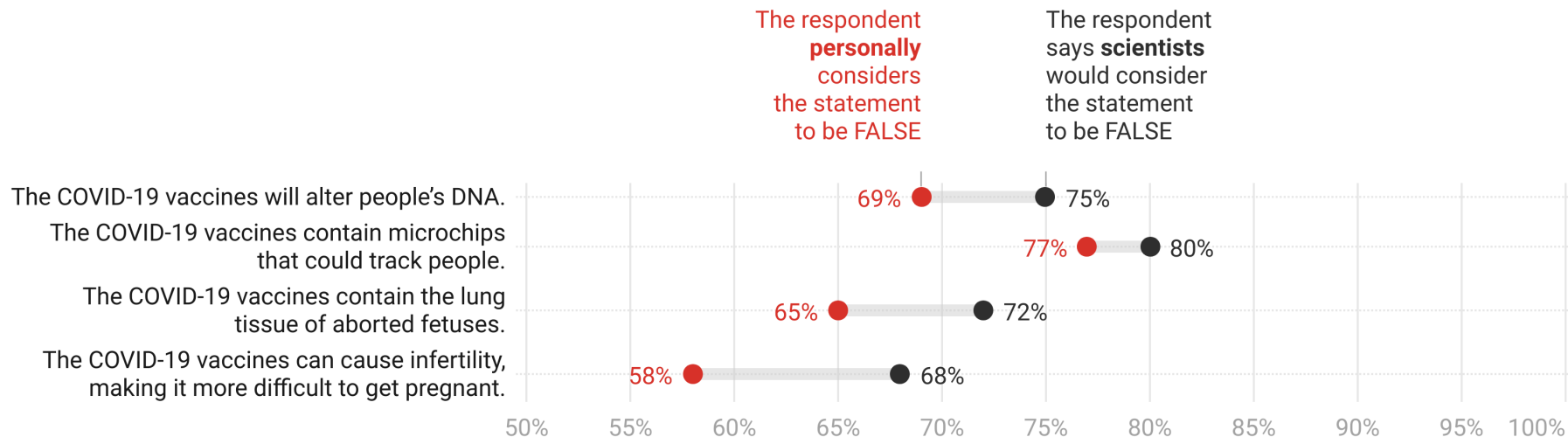
National sample, N = 20,590, Time period: 12/22/2022-01/18/2023

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

Do Americans knowingly disagree with scientific views on vaccines?

Perceptions of scientific consensus on false COVID-19 vaccine statements

1. To the best of your knowledge, are the following statements accurate or inaccurate?
2. Now, regardless of your own opinion about their accuracy, do you think most scientists and health experts would consider those statements accurate or inaccurate?



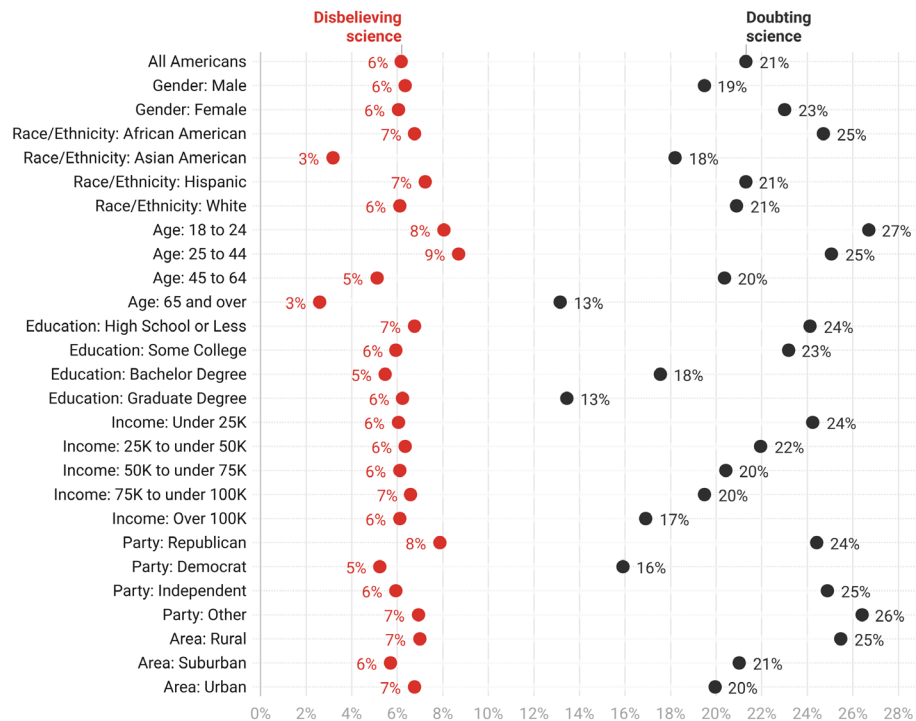
National sample, N = 19,060, Time period: 11/03/2021-12/02/2021

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

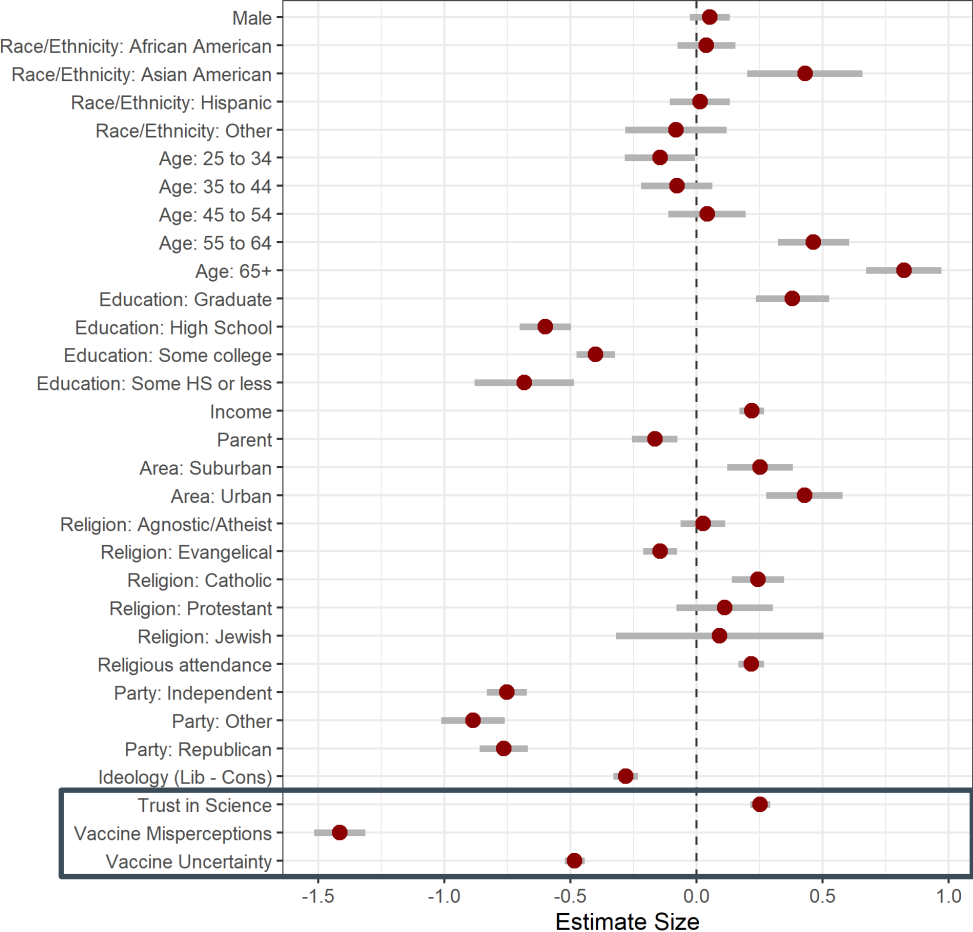
Do Americans knowingly disagree with scientific views on vaccines?

Survey respondents were asked to identify vaccine misinformation items as either true or false. When uncertain, they also had the option of saying "Not sure". Respondents were later asked whether they thought most scientists and health experts would consider the same statements to be true or false.

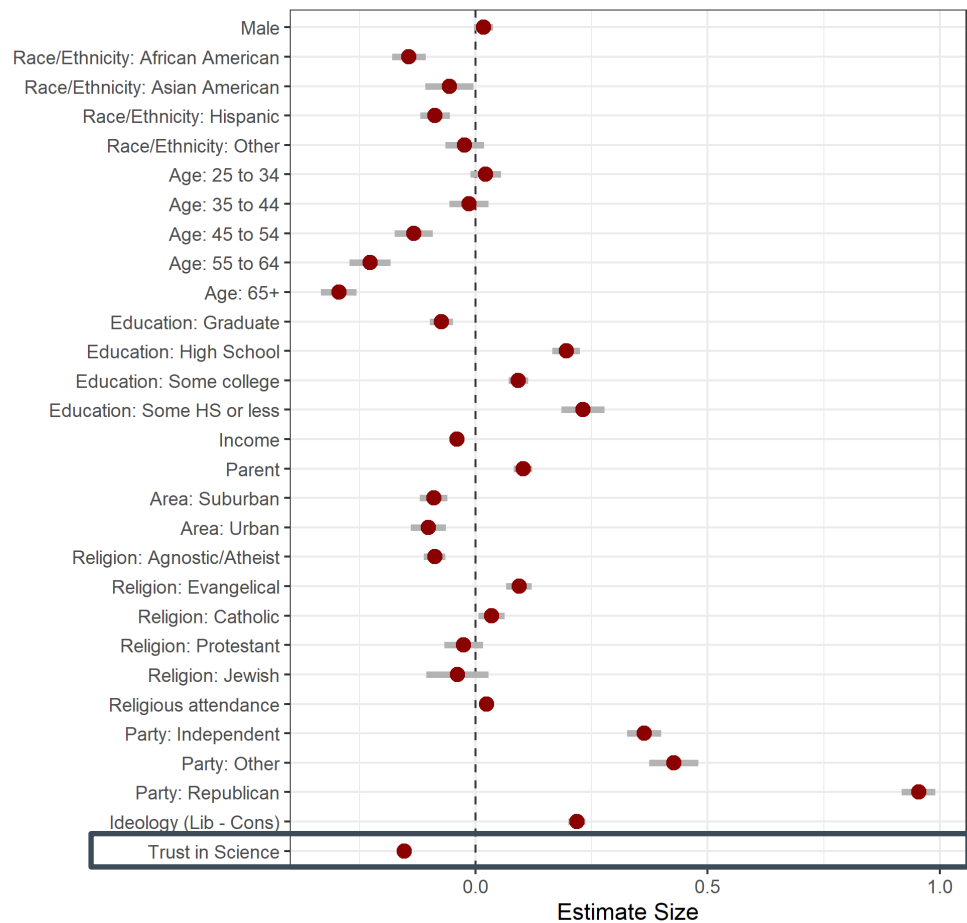
- (1) **Disbelieving science:** percent respondents in each category who said they thought a statement was true, but said science and health expert would consider it false.
- (2) **Doubting science:** percent respondents in each category who said they were not sure if a statement was true, but said science and health expert would consider it false.



SO WHAT: Predictors of being vaccinated (misinformation, uncertainty, trust)



Not just COVID: Predictors of believing the 2020 election was stolen



Time period: 2023-12

Trust in science and partisanship

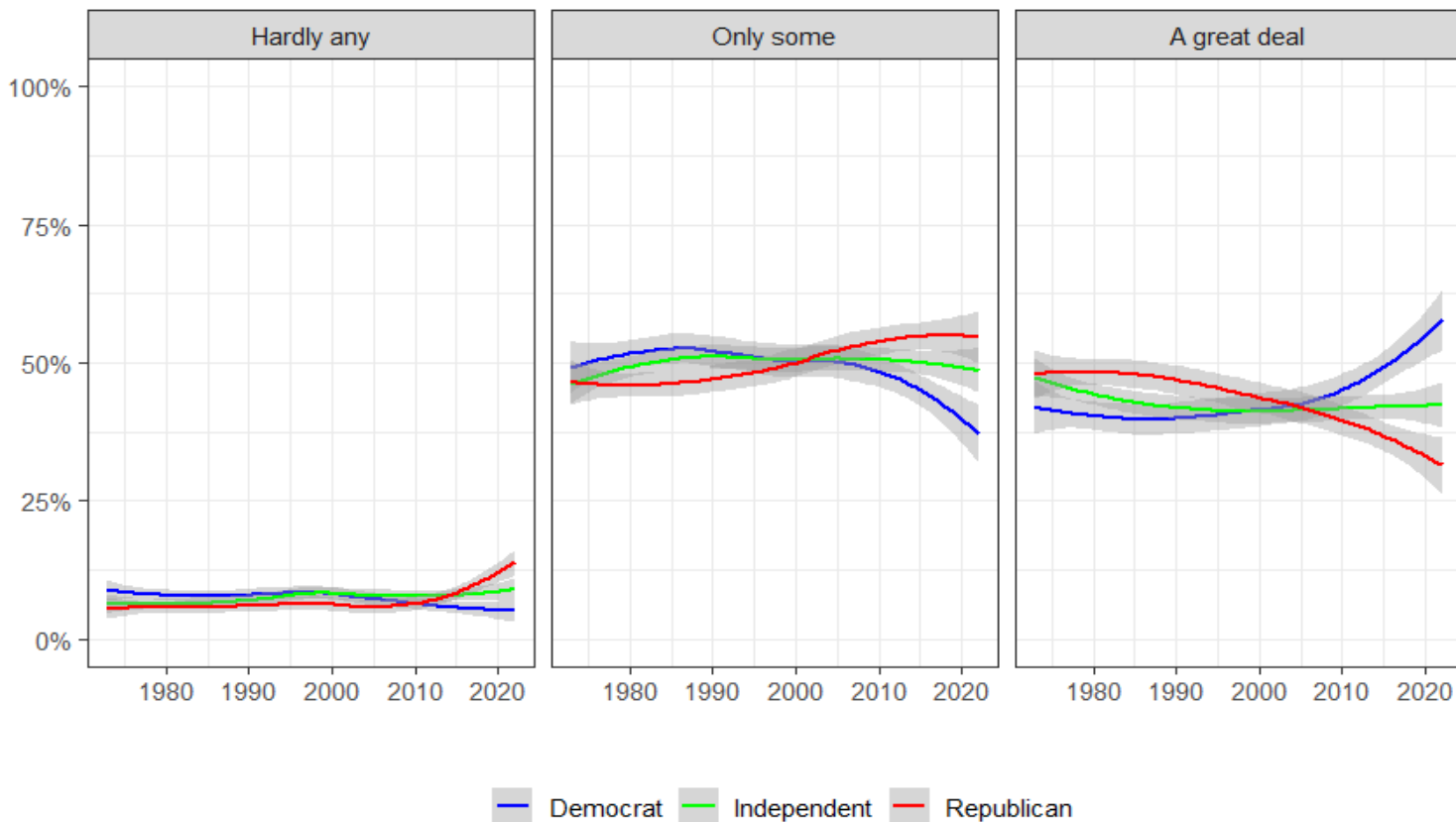
Trust in knowledge-producing institutions in the US

Trust in science competes with a number of alternative logics: intuition, religion, conspiratorial thinking, partisanship, etc.

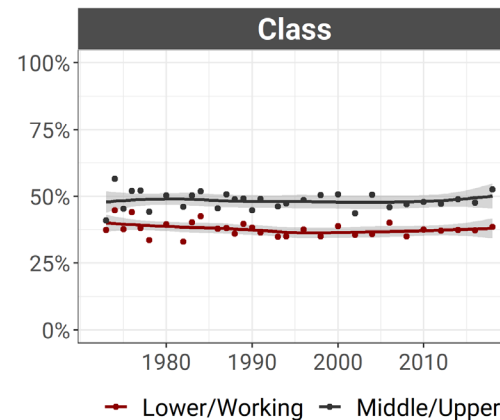
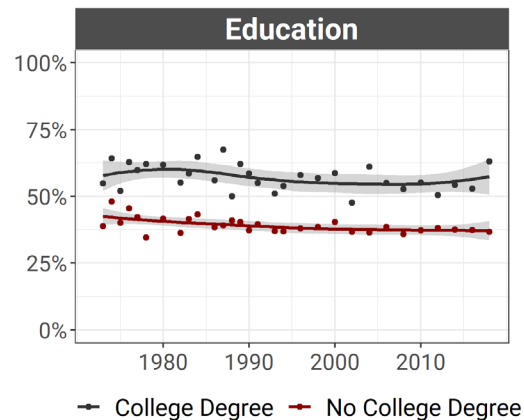
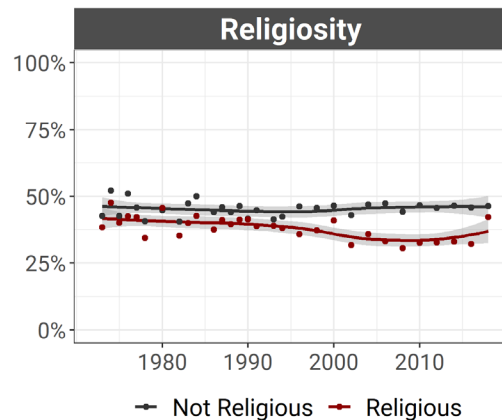
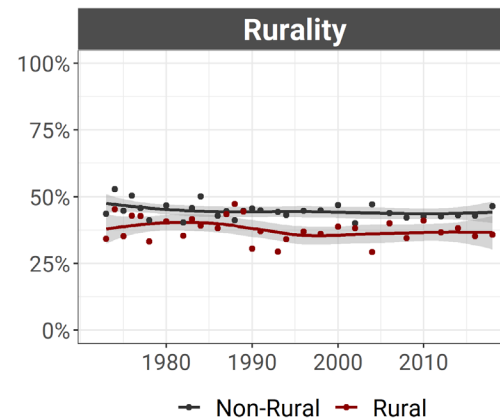
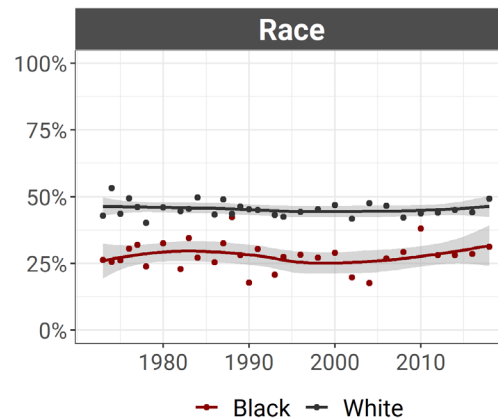
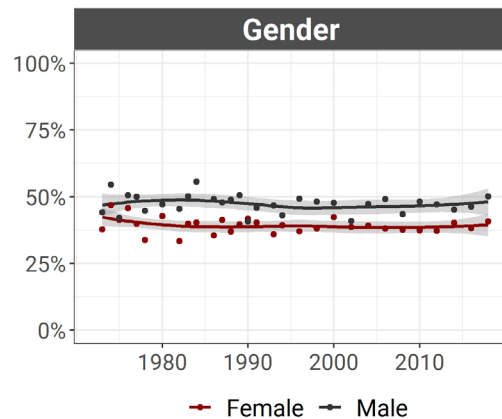


Trust in science by party: 1970s – 2020s (GSS)

Confidence in Science by Party Over Time

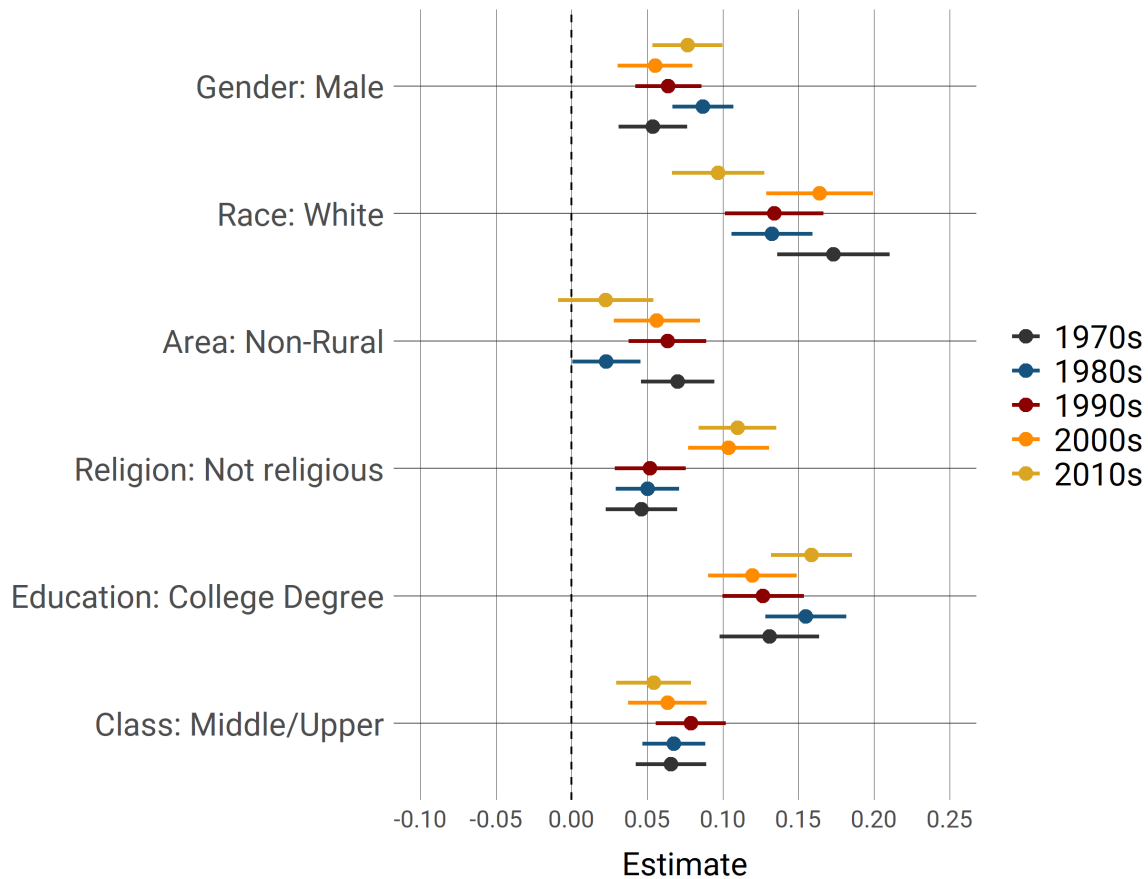


Percent Americans who trust science "A great deal" (GSS)



Confidence in science: predictors by decade (GSS)

Predictors of having a great deal of confidence in scientists by decade



Trust in science: Demographics and partisanship (1970s – 2020s, GSS)

Trust: Demographic stability

Party: Demographic sorting

Trust & knowledge polarized



Trust in science and social distance from scientists

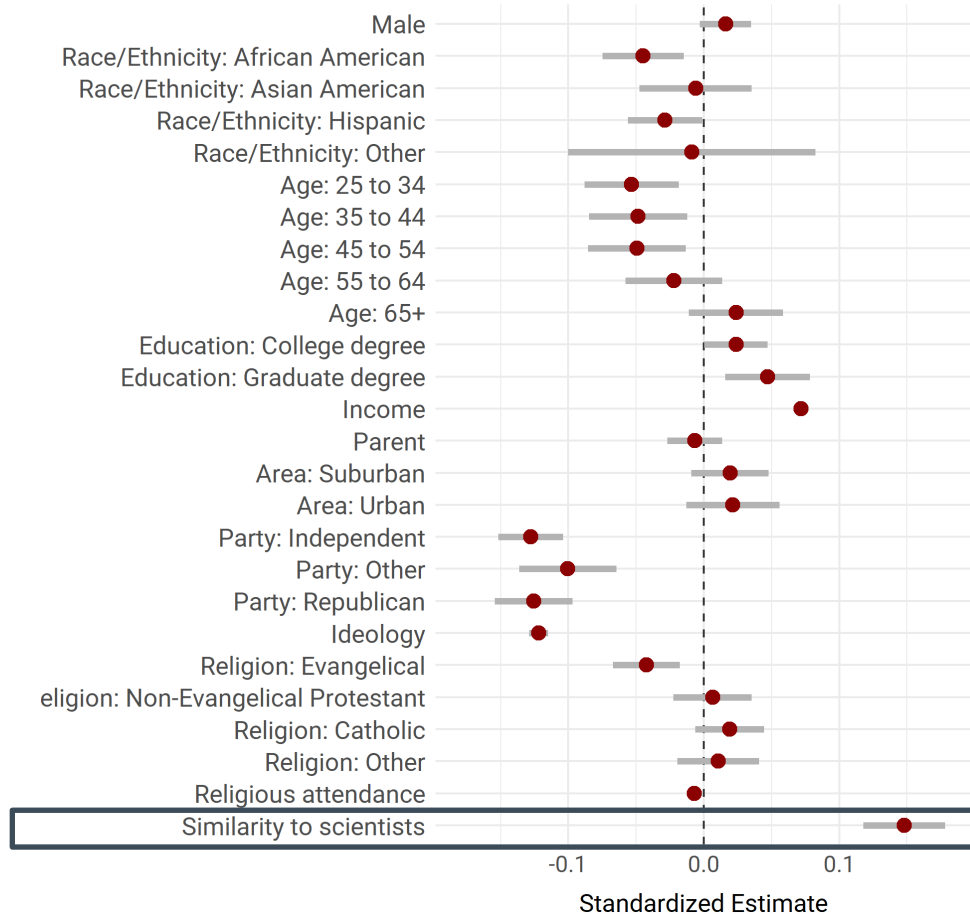
Trust in science and similarity to scientists

Science stereotypes

- Male
- White
- Younger
- More Educated
- Higher income
- More liberal
- Atheist/agnostic



Predictors of trust in science: similarity to scientists

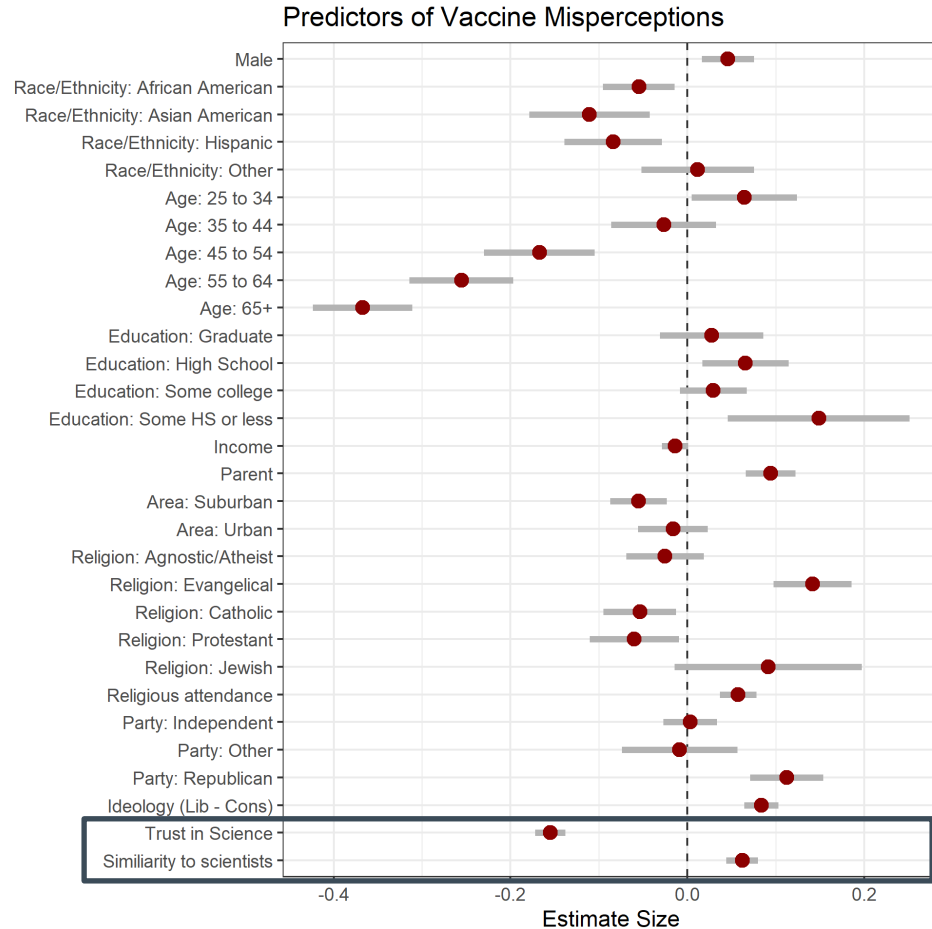


Do you think that people in the following professions are **different** from you or **similar** to you?

Please answer on a scale from 0 to 100 where 0 is "**very different**" and 100 is "**very similar**":

Scientist

Distance from science: COVID-19 vaccine misperceptions



Time period: 2023-07

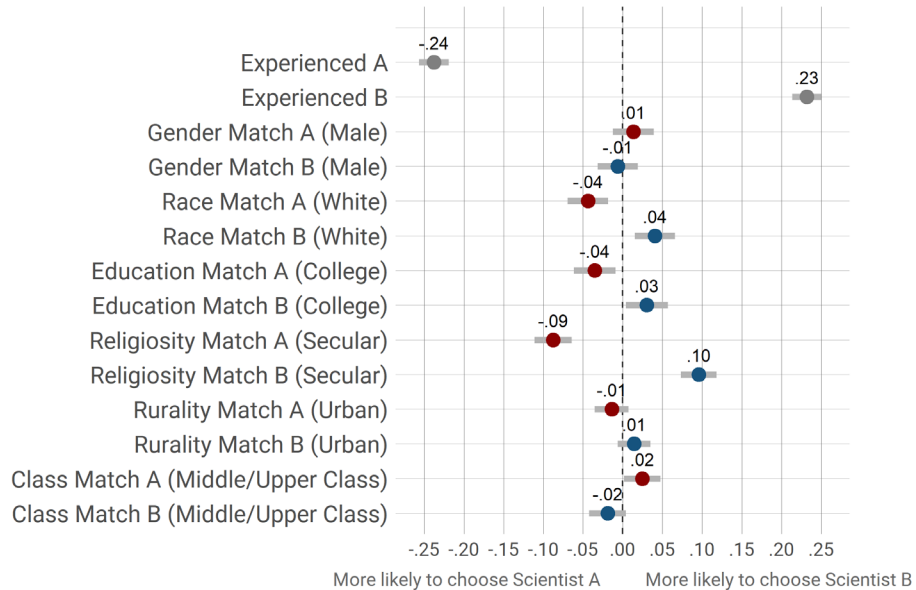
Conjoint experiment: Choose your scientist

Marginal effects of matching for overrepresented and underrepresented groups

(Change in probability of choosing B over A, all else equal)

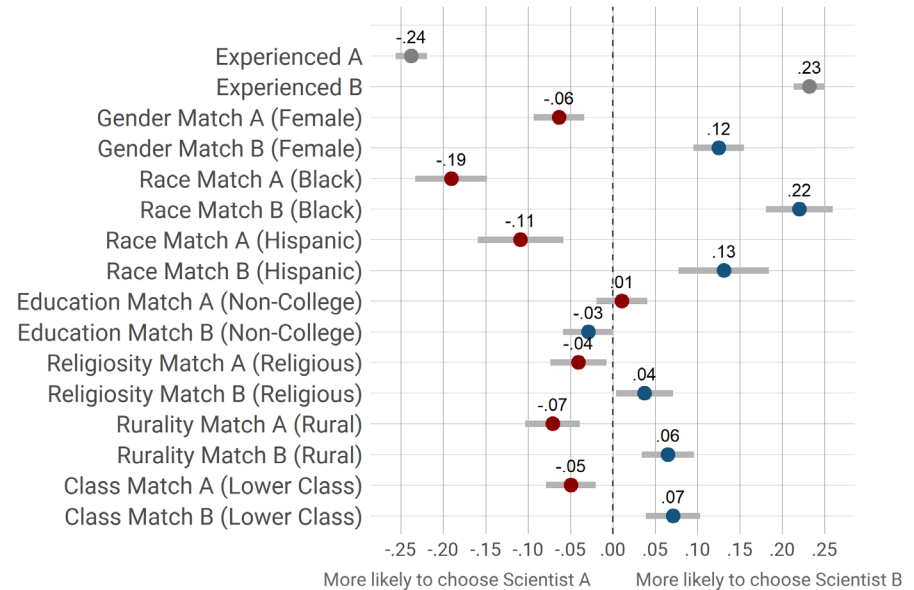
Overrepresented groups

● Matching with Scientist A ● Matching with Scientist B



Underrepresented groups

● Matching with Scientist A ● Matching with Scientist B



The End