Does Listening to Trustworthy News Affect Political Attitudes and Trust?

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A Additional Tables and Figures

Table 1: Sample descriptives from Wave 1.

Statistic	Mean	St. Dev.	Median	Min	Max	N
Female	0.49	0.50	0	0	1	2,071
White	0.74	0.44	1	0	1	2,071
Black	0.09	0.29	0	0	1	2,071
College educated	0.54	0.50	1	0	1	2,071
Income $>$ 50k	0.65	0.48	1	0	1	2,071
Party: Dem	0.41	0.49	0	0	1	2,071
Party: Rep	0.22	0.41	0	0	1	2,071
How often news podcasts	2.49	1.54	2	0	5	2,049
Political interest	3.92	1.00	4	1	5	2,071

var	estimate	p.value	adj.p
Podcast frequency	0.018	0.749	0.838
Democrat	0.017	0.450	0.650
Republican	-0.015	0.405	0.632
Age	-1.054	0.097	0.185
Female	0.000	0.983	0.894
White	-0.024	0.229	0.360
Education	-0.015	0.807	0.838
Political knowledge	-0.144	0.001	0.015
News literacy	-0.113	0.011	0.053
Ideology	-0.030	0.591	0.789
Income > 50k	0.002	0.921	0.894
Political interest	-0.131	0.003	0.027
Freq: TV	-0.091	0.201	0.335
Freq: Newspapers	-0.022	0.763	0.838
Freq: Cable	-0.062	0.415	0.632
Freq: Radio	-0.159	0.032	0.091
Freq: News podcasts	-0.145	0.035	0.091
Freq: Pol. podcasts	-0.182	0.011	0.053
Freq: Social media	-0.199	0.015	0.057
Freq: YouTube	-0.113	0.152	0.284
Freq: Local news	-0.002	0.972	0.894
Trust: Mainstream news (pre)	-0.021	0.630	0.789
Trust: Podcast news (pre)	-0.088	0.046	0.109
Trust: Social media news (pre)	0.009	0.835	0.838
Affective polarization (pre)	-5.474	0.000	0.004

Table 2: Pre-treatment covariate balance: Podcast treatment vs. control.

	Estimate	Std. Error	t value	Pr(>|t|)
(Intercept)	0.825	0.011	76.634	0.000
Treatment	0.023	0.017	1.365	0.172

Table 3: Attrition by treatment.

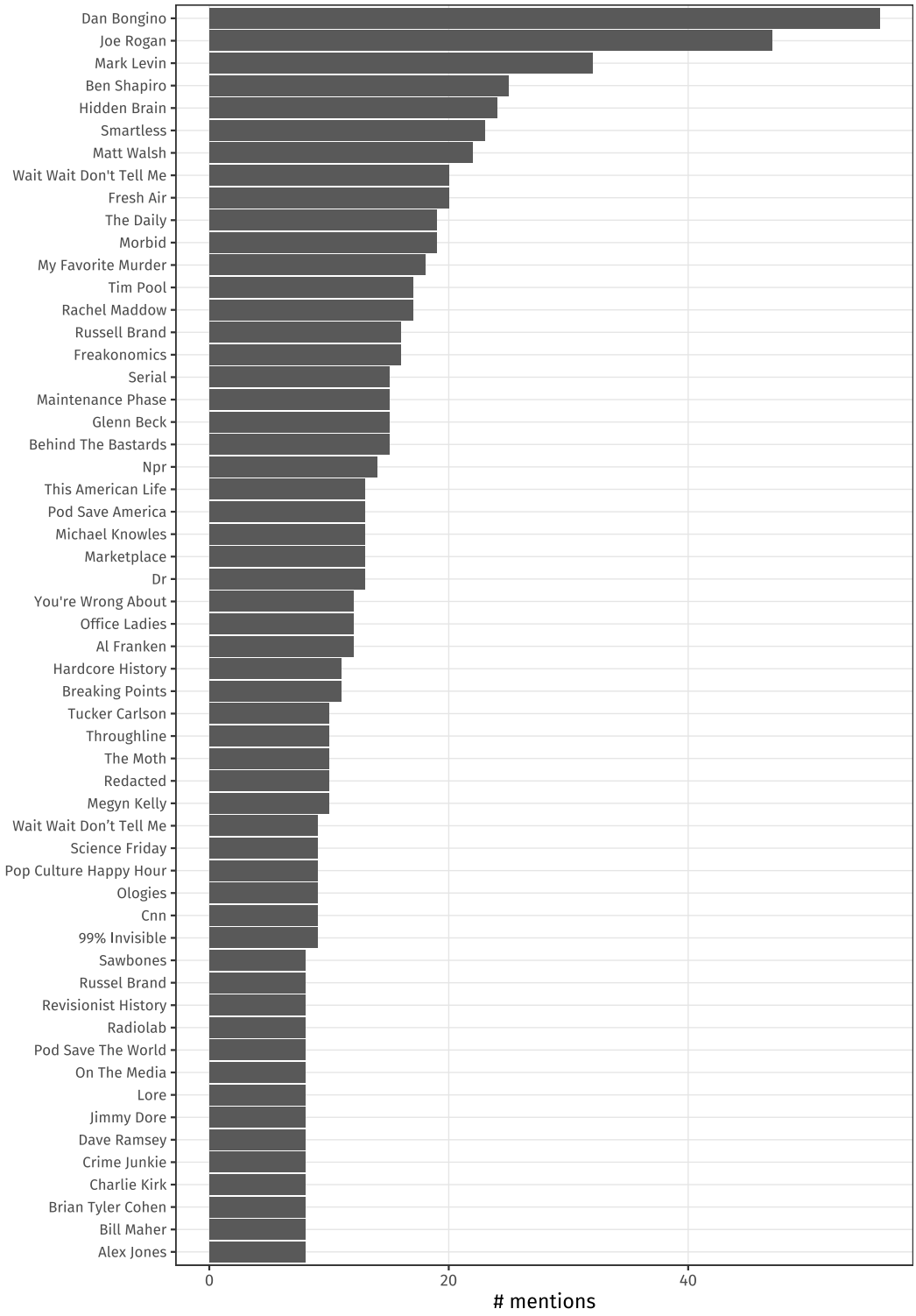


Figure 1: **Most frequently named podcasts in open-text responses.** Responses include podcasts not listed in the closed-ended survey question as well as those mentioned despite being listed.

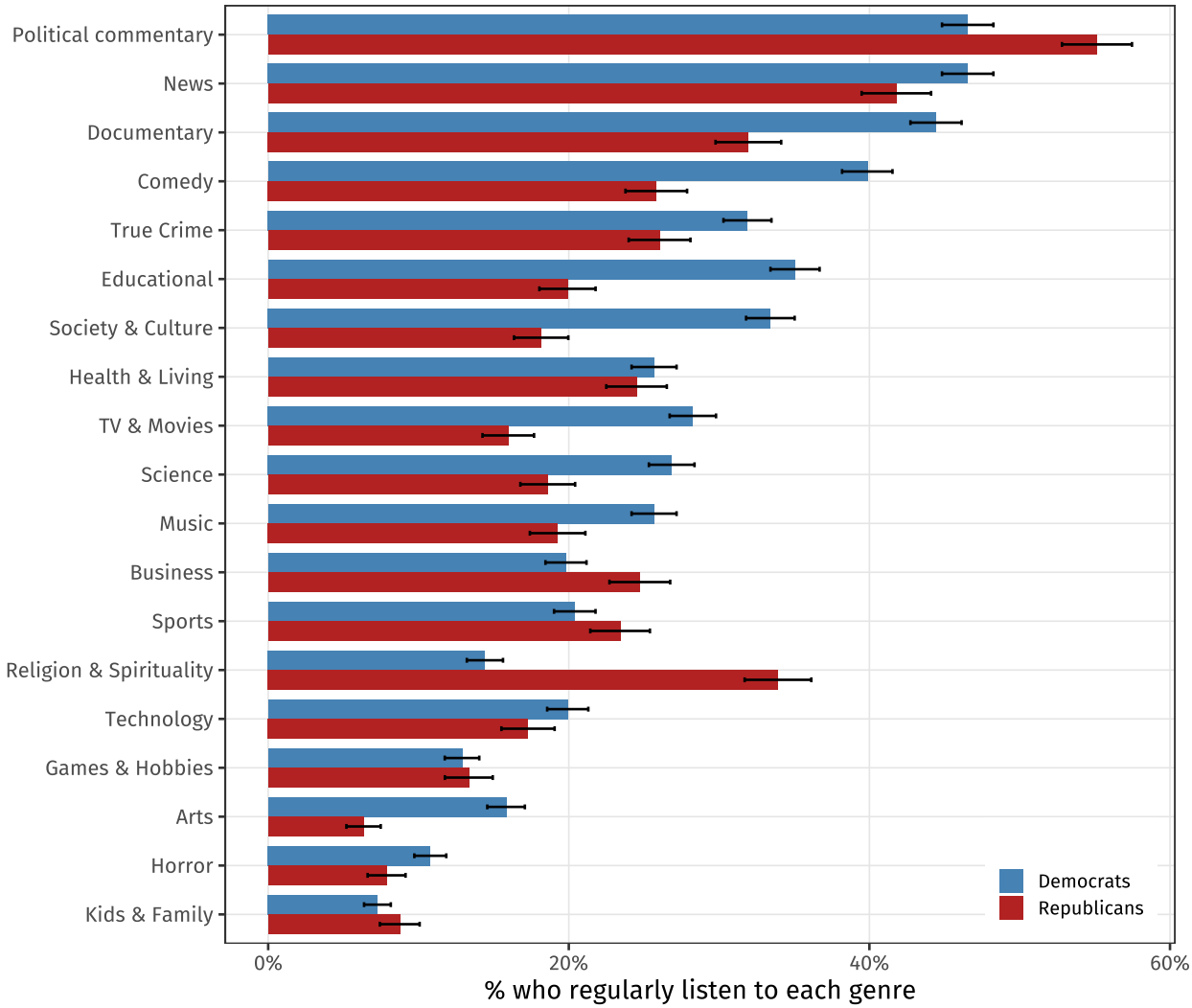


Figure 2: **Podcast genre preferences by party affiliation.** Each bar represents the percentage of Wave 1 participants who reported regularly listening to the specified podcast genre. Red bars indicate self-identified Republicans; blue bars indicate self-identified Democrats. Partisan leaners are not included.

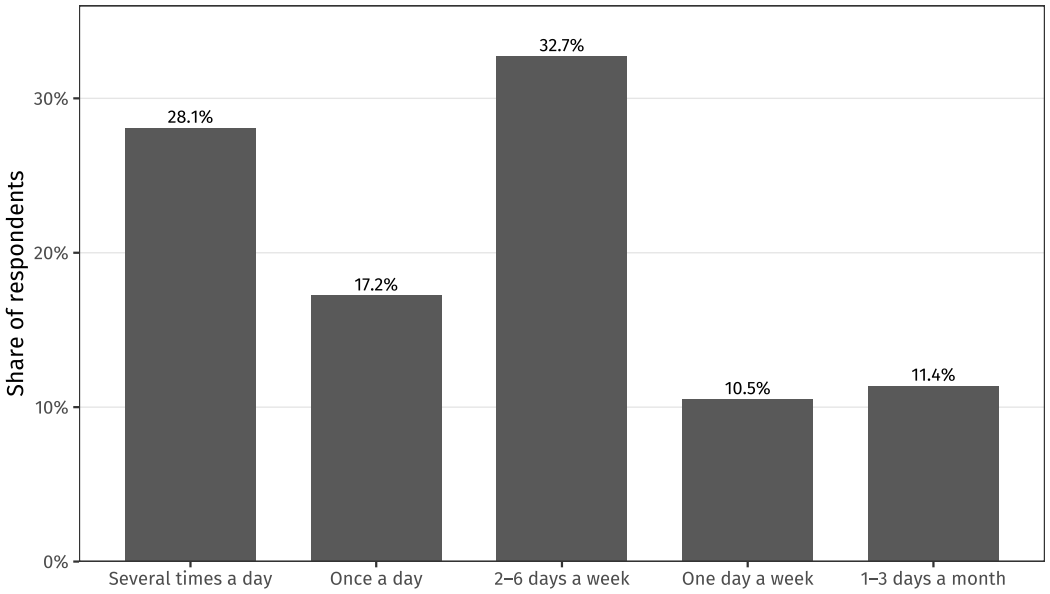


Figure 3: **Pre-treatment podcast listening frequency.** Distribution of self-reported podcast listening frequency among Wave 1 respondents. Bars represent the share of participants selecting each response category.

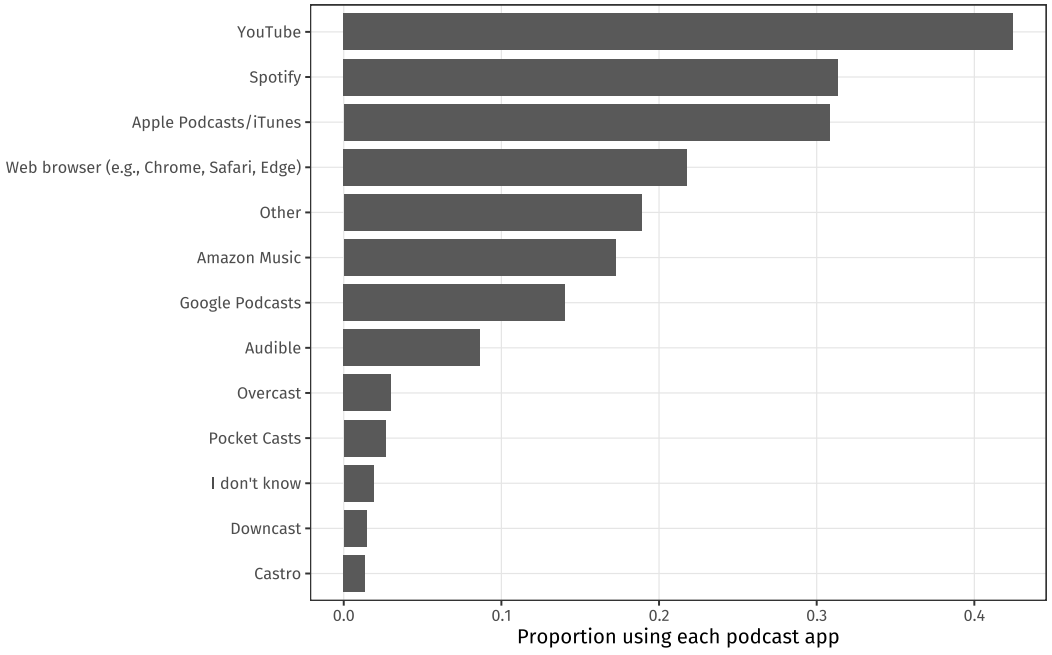


Figure 4: **Podcast apps and platforms.** Share of Wave 1 respondents who reported using each app or platform to listen to podcasts. Respondents could select multiple options.

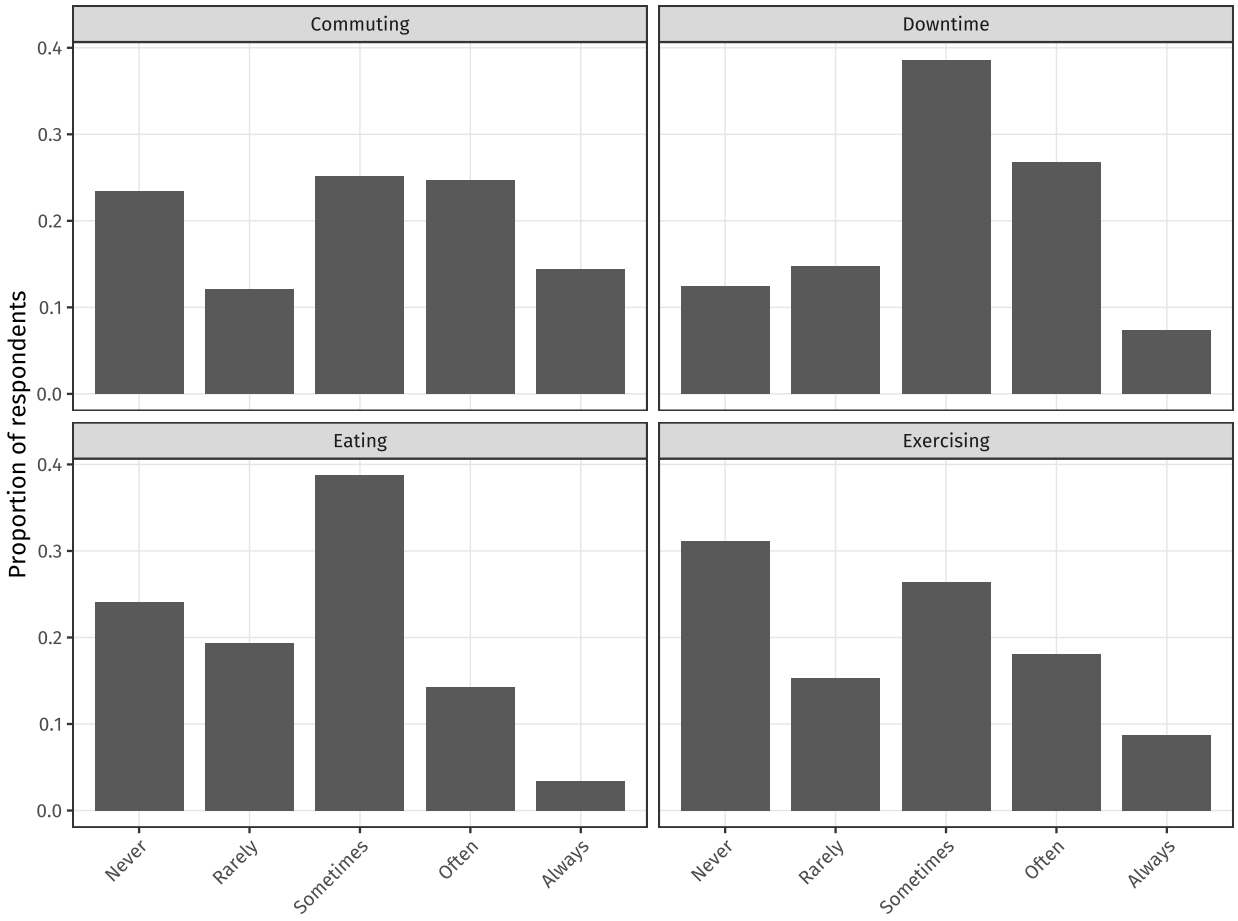


Figure 5: **Podcast listening contexts.** Proportion of Wave 1 participants who reported listening to podcasts while doing the specified activity.

Outcome	Estimate	p-value	95% CI	Control	N
Event knowledge (H1a)	0.063	0.000	[0.046, 0.080]	0.642	1997
Knowledge of covered events (H1b)	0.162	0.000	[0.133, 0.192]	0.822	2010
Knowledge of events not covered (RQ)	0.025	0.081	[-0.003, 0.053]	1.105	1997
Affective polarization (H2a)	-0.109	0.910	[-1.987, 1.770]	52.319	1683
Issue polarization (H2b)	-0.006	0.816	[-0.061, 0.048]	-0.000	1850
Mainstream news trust (H3a)	0.031	0.103	[-0.006, 0.068]	0.025	1538
News podcast trust (H3b)	0.092	0.013	[0.019, 0.165]	0.027	1545
Trust in social media news (RQ)	-0.047	0.143	[-0.111, 0.016]	-0.019	1524

Table 4: **Summary of main hypothesis tests and research questions.** Each row contains a treatment effect estimate (and associated p-value, unadjusted) from a separate OLS model (lasso-adjusted). "Control" column is the control-group mean.

Outcome	Estimate	p-value	95% CI	Control	N
Event knowledge (H1a)	0.050	0.000	[0.032, 0.069]	0.642	1900
Knowledge of covered events (H1b)	0.149	0.000	[0.118, 0.180]	0.822	2032
Knowledge of events not covered (RQ)	0.006	0.721	[-0.025, 0.036]	1.105	1900
Affective polarization (H2a)	-0.109	0.910	[-1.987, 1.770]	52.319	1683
Issue polarization (H2b)	-0.004	0.892	[-0.061, 0.053]	-0.000	1900
Mainstream news trust (H3a)	0.032	0.099	[-0.006, 0.069]	0.025	1554
News podcast trust (H3b)	0.092	0.014	[0.018, 0.166]	0.027	1574
Trust in social media news (RQ)	-0.059	0.074	[-0.124, 0.006]	-0.019	1574

Table 5: **Summary of main hypothesis tests and research questions, alternative specification.** Each row contains a treatment effect estimate (and associated p-value, unadjusted) from a separate OLS model (lasso-adjusted, using only a subset of the pre-registered list of potential covariates for inclusion: age, race, gender, income tercile, education, party, and ideology). "Control" column is the control-group mean.

Outcome	Estimate	Std. Error	p-value	95% CI
Covered items (raw)	0.003	0.033	0.918	[-0.061, 0.068]
Non-covered items (raw)	0.007	0.029	0.802	[-0.049, 0.064]
Covered items (SD)	0.003	0.033	0.918	[-0.061, 0.068]
Non-covered items (SD)	0.007	0.029	0.802	[-0.050, 0.065]

Table 6: **Issue polarization ITT: covered vs. non-covered Items.** Intent-to-treat estimates of podcast exposure on issue polarization, separately for items covered and not covered by the assigned podcast. Issue items whose topics were coded as covered: Government regulation of business is necessary to protect the public interest (Silicon Valley bank, Disney layoffs); Gun control laws in the United States should be stricter (school shooting); It should be easier for workers to form unions (Starbucks CEO Schultz about union busting); For the sake of Israel's future, it is important that the independence of the judiciary be maintained (protests in Israel).

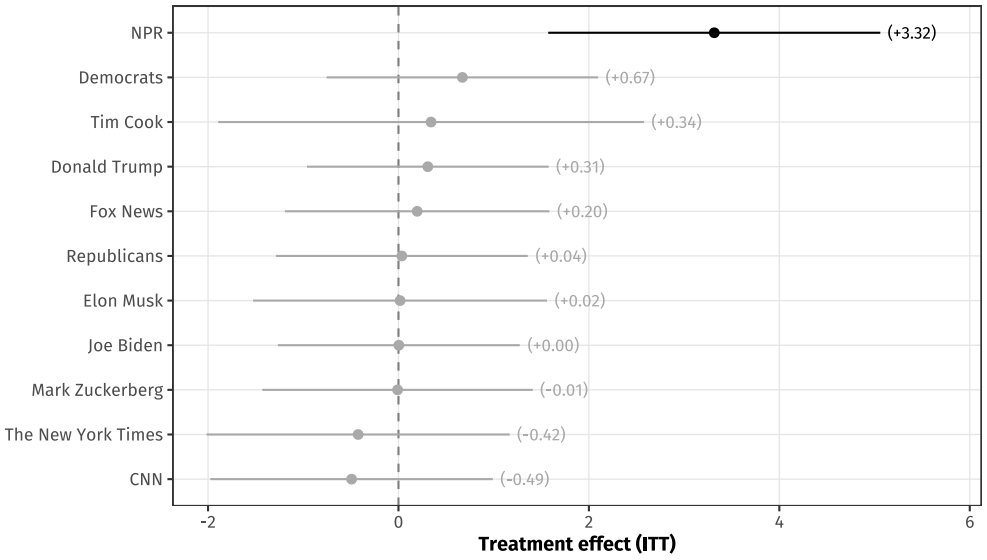


Figure 6: **Effects on feeling thermometer ratings for political and media figures.** Each row contains a treatment effect estimate (and associated 95% confidence interval formed using HC2 robust standard errors) from a separate OLS model (lasso-adjusted). This analysis is exploratory. Estimates in black have Anderson (2008) FDR-adjusted q-values < 0.05.

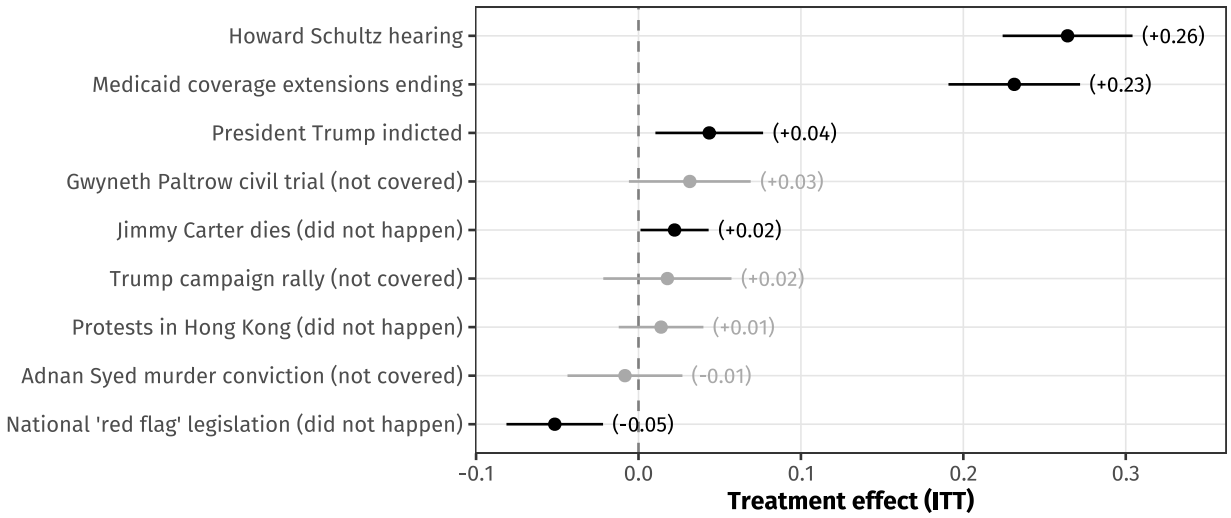


Figure 7: **Treatment effects on individual knowledge items.** Each row contains a treatment effect estimate (and associated 95% confidence interval formed using HC2 robust standard errors) from a separate OLS model (lasso-adjusted) with a binary indicator for correctly answering the specified knowledge question as the dependent variable. Estimates in black have Anderson (2008) FDR-adjusted q-values < 0.05.

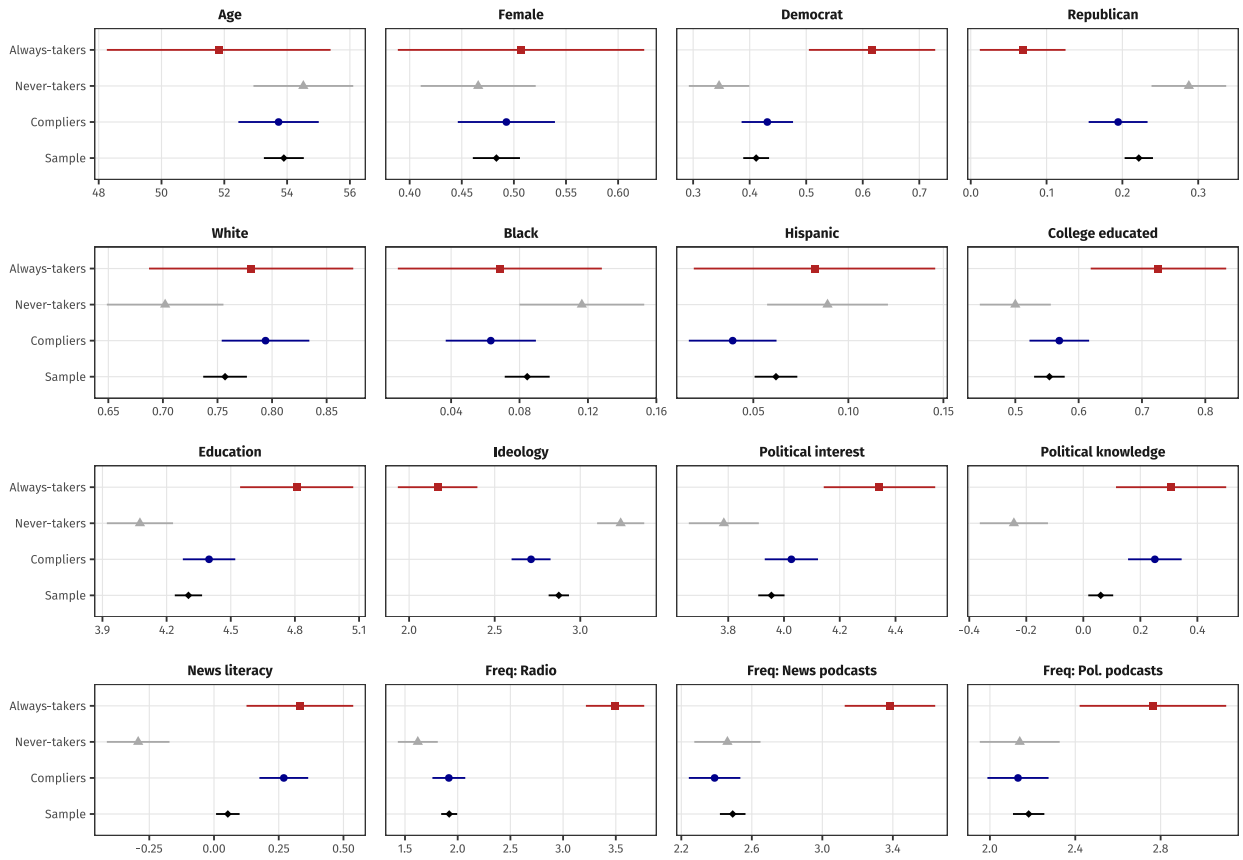


Figure 8: **Complier profiling.** The figure compares the distribution of pre-treatment covariates between compliers and the full sample, following Marbach and Hangartner (2020). Each row shows a covariate mean among compliers (estimated via instrumental variables) alongside the corresponding sample mean, with 95% confidence intervals.

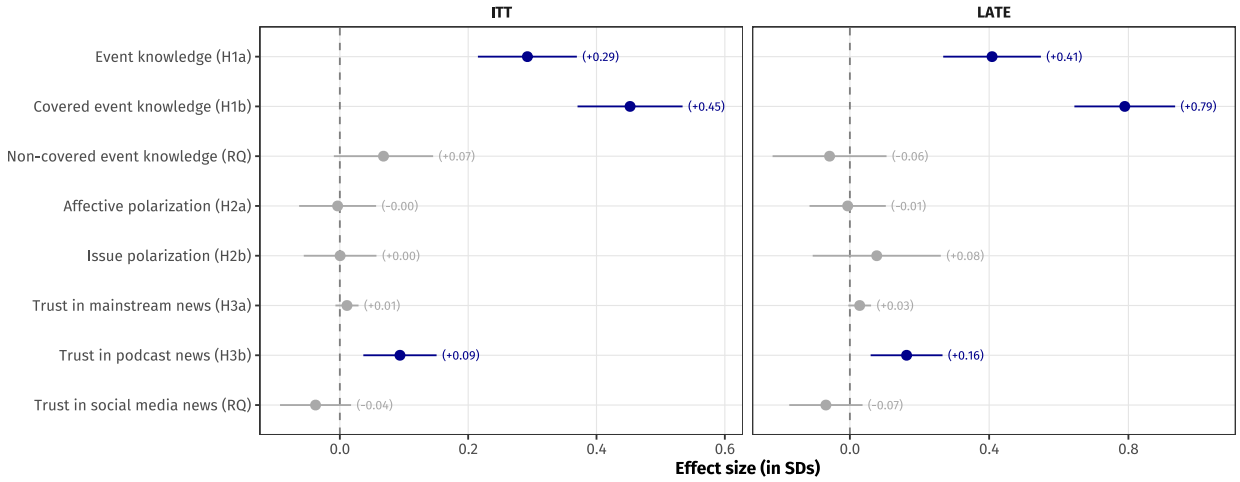


Figure 9: **Intent-to-treat vs. local average treatment effect estimates.** Each row contains an ITT estimate from OLS (lasso-adjusted) and a corresponding LATE estimate from two-stage least squares, using treatment assignment as an instrument for compliance. Both sets of estimates use HC2 robust standard errors to form 95% confidence intervals. Estimates in black are statistically significant at the $p < 0.05$ level.

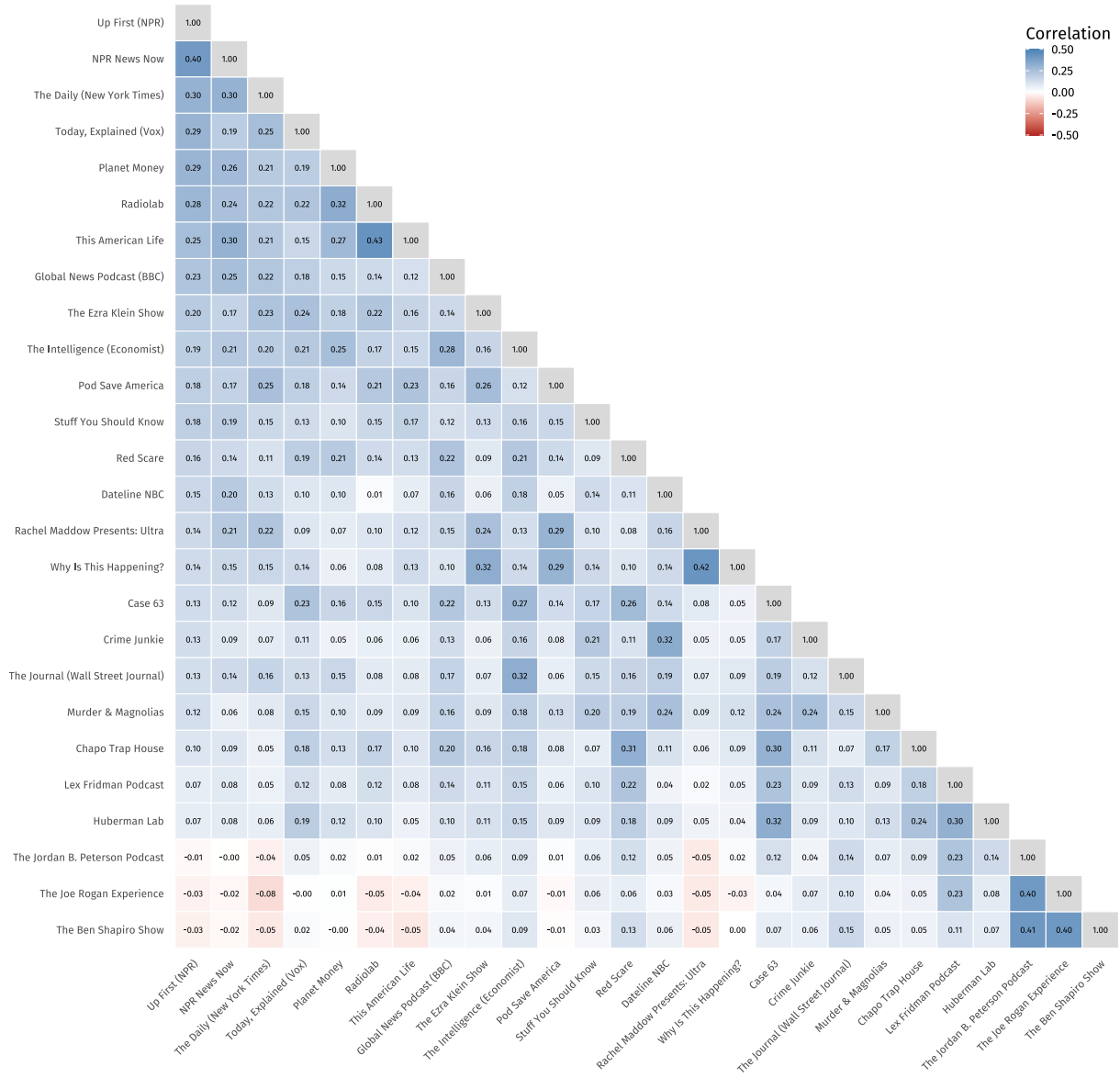


Figure 10: **Correlations among podcast listenership measures.** Each cell shows the pairwise Pearson correlation between self-reported listenership of two podcasts among Wave 1 respondents. Stronger colors indicate higher absolute correlations.

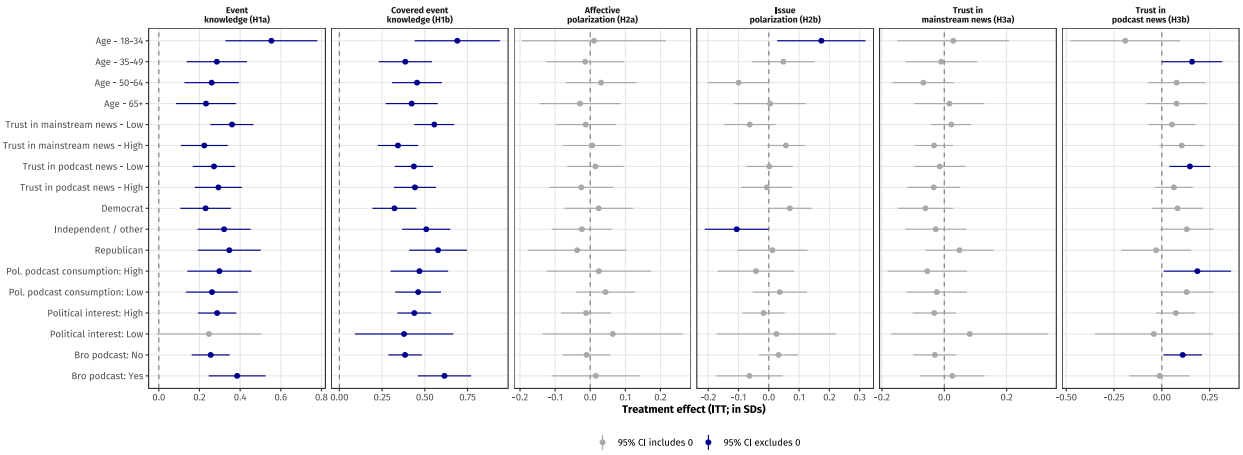


Figure 11: **Heterogeneous treatment effects across outcomes and moderators.** Each panel shows treatment effect estimates (and associated 95% confidence intervals formed using HC2 robust standard errors) from separate OLS models (lasso-adjusted), estimated within subgroups defined by the specified moderator variable. Estimates in black are statistically significant at the $p < 0.05$ level.

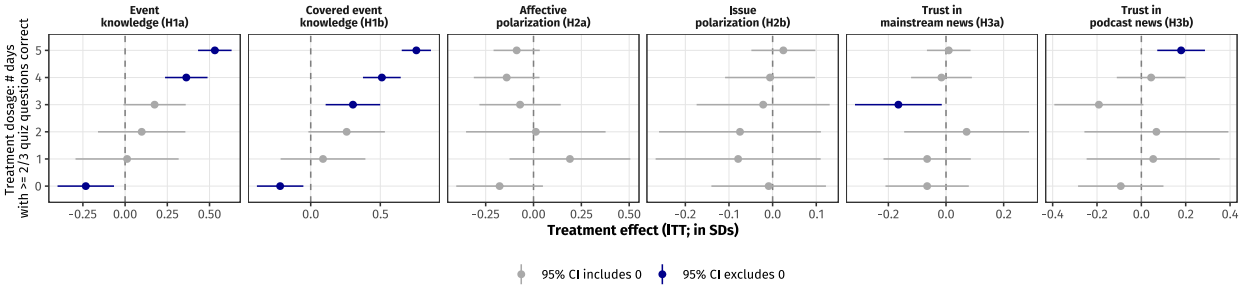


Figure 12: **Heterogeneous treatment effects by treatment dosage.** Each row contains a treatment effect estimate (and associated 95% confidence interval formed using HC2 robust standard errors) from a separate OLS model (lasso-adjusted), estimated within subgroups defined by the number of treatment episodes completed. Estimates in black are statistically significant at the $p < 0.05$ level.

B Treatment and Quiz Implementation

YouGov

Research on Audio Streaming Experience

We are interested in understanding how people evaluate the quality of popular news and information shows. You have been selected to participate in a user test that will allow us to achieve that. As part of this test, you have been randomly allocated to a group of participants who will be asked to regularly listen to a news and information podcast for a period of 1 week. In return, 15,000 points will be credited to your YouGov account.

To take part, all you have to do is follow a few simple instructions on the next page. We will invite you to listen to 5 short, daily episodes. Each episode is about 10 minutes long. **The user test will last 1 week**. This means that if you listened to each episode, you would receive compensation of approximately 15,000 in YouGov points. We will send you short quizzes by email each day to confirm that you listened to that day's episode and, if you missed it, to give you another chance to listen to it.

You might be familiar with this podcast or listen to it already. Don't worry - that's not a problem! We hope this will become a natural part of your listening routine. You'll be free to revert back to normal once the test is over.

Do you agree to try out a news podcast that we select for you?

- ◯ Yes
- ◯ No

YouGov

Thank you very much! You are providing a very important contribution to research.

You have been randomly selected to listen to the NPR podcast *Up First*. We will ask you to listen to 5 short (approx. 10 minutes) episodes over the next week. **The first quiz will be sent to you on Monday, March 27, asking about that day's episode.**

Up First is a popular podcast that covers three of the day's most important stories. For more information, click on this link.

On the next page, we will share information about how to access this podcast.



Figure 13: Screen shot of encouragement page for those assigned to the treatment condition (top) and landing page for those who choose to comply (bottom).

Please follow these simple steps to subscribe to the podcast. The screenshots are from an iPhone, but the steps are very similar for Android phones.

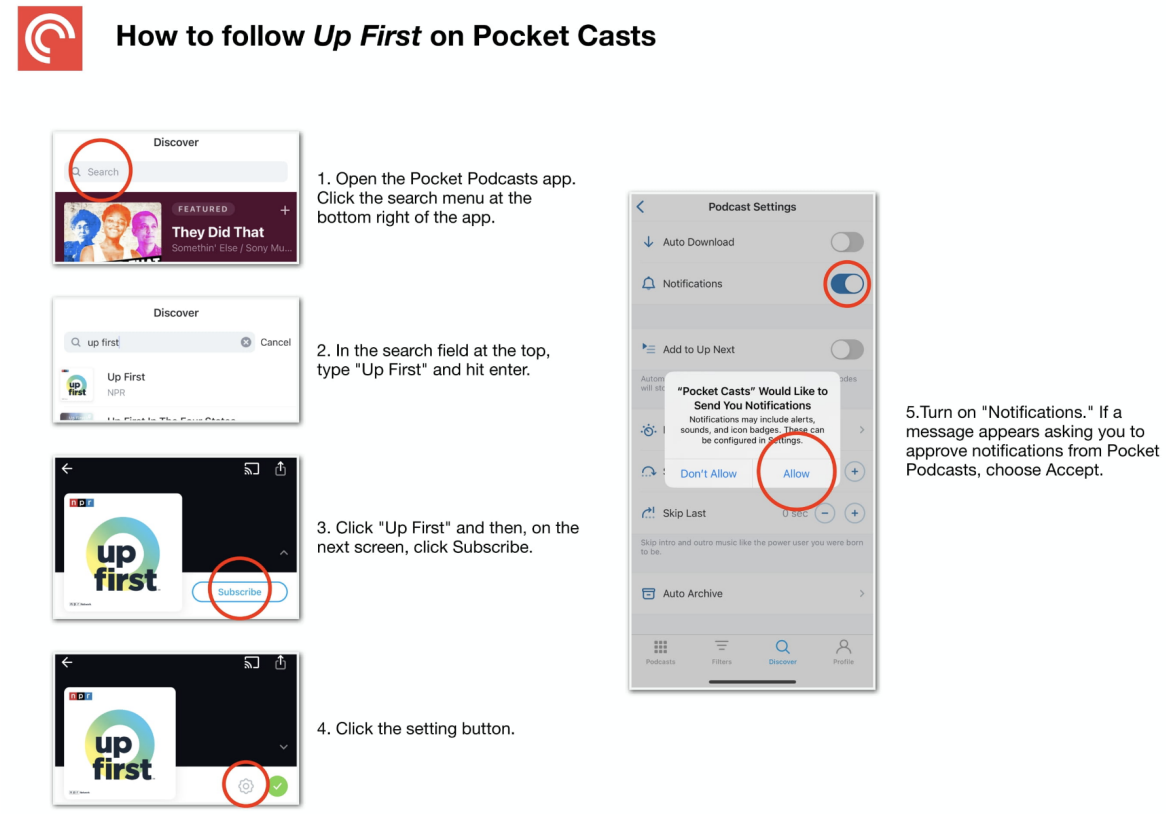


Figure 14: Sample podcast subscription instructions.

Email subject: Your daily podcast quiz from YouGov
Email body: Thank you again for agreeing to listen to NPR Up First episodes this week! Please take our short quiz at the link to see how well you remember the episode, and to confirm your participation for today's episode.
Quiz: What three topics were covered in today's episode?

(a) First Lady Jill Biden attends a city-wide vigil in Nashville

(b) Millions of people could lose their health coverage as pandemic-era protections end

(c) The FDA approves the first over-the-counter opioid overdose antidote

(d) Understaffed hospitals across the U.S. are being forced to turn away patients

(e) Taiwan's president prepares to visit Central America as tensions with China rise

(f) Multiple pieces of anti-trans legislation pass in states around the country

[Correct: (a), (b), (e)]

C Survey Question Wordings

Questions used to construct dependent variables (Wave 2; also asked in Wave 1 unless noted)

Feeling thermometers (0–100)

We would like to get your feelings toward some political leaders and groups using something we call the feeling thermometer. Ratings between 50 degrees and 100 degrees mean that you feel favorable and warm toward the person or group. Ratings between 0 degrees and 50 degrees mean that you don't feel favorable toward the person or group and that you don't care too much for that person or group. If you don't feel particularly warm or cold toward the person or group you would rate them at 50 degrees. If you come to a person or group whose name you don't recognize, you don't need to rate that person or group. Just move on to the next one.

[separate screens, in random order]

- Donald Trump
- Joe Biden
- Democrats
- Republicans
- Elon Musk
- Tim Cook
- Mark Zuckerberg
- NPR
- CNN
- Fox News
- *The New York Times*

Media trust grid

How much, if at all, do you trust the information you get from...
ROWS

- Network news organizations (e.g., ABC, CBS, NBC)
- Cable news
- National newspapers (e.g., *New York Times, Wall Street Journal*)
- Local news
- Public radio programs
- Social media such as Facebook, Twitter, Instagram, and TikTok
- News podcasts
- Political commentary podcasts
- YouTube

COLUMNS

1	A lot
2	Some
3	Not too much
4	Not at all

Perceived media bias grid

How do you think that the following kinds of news sources present the news dealing with political and social issues? Do you think that they deal fairly with all sides, or do they tend to favor one side?

ROWS

Network news organizations (e.g., ABC, CBS, NBC)

Cable news

National newspapers (e.g., *New York Times, Wall Street Journal*)

Local news

Public radio programs

Social media such as Facebook, Twitter, Instagram, and TikTok

News podcasts

Political commentary podcasts

YouTube

COLUMNS

1 Deal fairly with all sides

2

3

4

5 Tend to favor one side

Trust in news podcasters

How much of the time do you trust the information you get from **news podcasters**?

- Never
- Rarely
- Some of the time
- Most of the time
- Always

Trust in TV reporters

How much of the time do you trust the information you get from **television news reporters**?

- Never
- Rarely
- Some of the time
- Most of the time
- Always

Trust in newspaper reporters

How much of the time do you trust the information you get from **newspaper reporters**?

- Never
- Rarely
- Some of the time
- Most of the time
- Always

Trust in TV vs. podcasts for news (1–10)

Some people put more trust in information they get from **television news**. Imagine those people are all the way at one end of a scale, at 1. Other people put more trust in information they get from **news podcasts**. Imagine those people are at the other end of the scale, at 10. Of course, some people fall in between and sometimes put more trust in **TV news**, sometimes in **news podcasts**. Where would you place yourself on this scale?

[Horizontal scale, 1=Trust TV news, 10=Trust podcasts]

Trust in newspapers vs. podcasts for news (1–10)

Some people put more trust in information they get from **newspapers**. Imagine those people are all the way at one end of a scale, at 1. Other people put more trust in information they get from **news podcasts**. Imagine those people are at the other end of the scale, at 10. Of course, some people fall in between and sometimes put more trust in **newspapers**, sometimes in **news podcasts**. Where would you place yourself on this scale?

[Horizontal scale, 1=Trust newspapers, 10=Trust podcasts]

Event knowledge (Wave 2 only)

Below are some events that may or may not have taken place in the past two weeks. Please select the events that you believe actually happened.

- ☐ Former president Jimmy Carter died at the age of 98. *[did not happen]*
- ☐ "Serial" podcast subject Adnan Syed's murder conviction was reinstated by an appeals court. *[happened, not covered on podcast]*
- ☐ Pandemic-era extensions to Medicaid coverage were scheduled to end. *[happened, covered on podcast]*
- ☐ Congress introduced new national "red flag" legislation after the Nashville school shooting. *[did not happen]*
- ☐ President Trump held a campaign rally in Waco, Texas. *[happened, not covered on podcast]*
- ☐ President Trump was indicted in New York. *[happened, covered on podcast]*
- ☐ Protests spread in Hong Kong over newly restricted freedoms. *[did not happen]*
- ☐ Senators questioned Starbucks founder Howard Schultz about unionization efforts. *[happened, covered on podcast]*
- ☐ Gwyneth Paltrow went to court for a civil trial involving a 2016 ski accident. *[happened, not covered on podcast]*

Policy attitudes grid (Wave 2 only)

Below we'd like to learn a little bit about your opinions. Please provide the response closest to your view on each issue.
ROWS

- Government regulation of business is necessary to protect the public interest.
- Police funding should generally be increased.
- Gun control laws in the United States should be stricter.
- It should be easier for workers to form unions.
- Inflation is making it difficult for Americans to afford the things they want to buy.
- Climate change will pose a serious threat to me or my way of life in my lifetime.
- Whether a person is a man or a woman is defined by their assigned sex at birth.
- Abortion should be considered a routine part of health care, not a moral issue.
- For the sake of Israel's future, it is important that the independence of the judiciary be maintained.

COLUMNS

- Strongly disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Strongly agree

Most important issue grid (Wave 2 only)

There are many issues that concern people. How about you? Which of the following issues and problems do you consider to be particularly important in the United States? *Check all that apply.* [random order]
ROWS

- Gun control
- Women's rights
- Climate change
- Relations with China
- Free speech
- Crime
- Racism
- Economy / unemployment
- Democracy and the rule of law
- Terrorism
- Political polarization
- Morality and values
- Relations with Israel
- Black Lives Matter movement
- Russian invasion of Ukraine
- Inequality
- Health care / Medicaid
- Immigration
- Fake news
- Inflation
- Crisis of Big Tech companies
- None of the above

COLUMNS

- Strongly disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Strongly agree

Wave 1 screening questions

Podcast listening frequency

How often, if at all, do you listen to podcasts (including radio shows you are subscribed to as podcasts)? Podcasts are on-demand episodic series in audio or video digital format that can be downloaded or listened to live on a variety of devices.

- Several times a day
- Once a day
- 2-6 days a week
- One day a week
- 1-3 days a month
- One day every 2-3 months
- One day every 6 months
- Less often
- It varies
- Don't know
- Not applicable – I do not listen to podcasts

Willingness to participate in experiment

In the following survey, we are interested in learning about your experiences with podcasts. As part of the study, we may ask you to listen to a few short episodes over the next week, and then ask some questions about them. Would you be willing to consider listening to no more than 5 podcast episodes (each no more than 15 minutes long), with extra compensation, as part of this study?

- Yes, I would consider listening to podcasts for this study
- No, I would not consider listening to podcasts for this study

Pre-treatment measures of political attitudes and behavior

Political interest

How interested in politics are you?

1. Very interested
2. Interested
3. Moderately interested
4. Slightly interested
5. Not interested at all

Pre-treatment measures of news and media consumption

Podcast genre preference

Which, if any, of the following genres of podcasts do you regularly listen to?

- ☐ Arts
- ☐ Business
- ☐ Comedy
- ☐ Documentary
- ☐ Educational
- ☐ Games & Hobbies
- ☐ Health & Living
- ☐ Horror
- ☐ Kids & Family
- ☐ Music
- ☐ News
- ☐ Political commentary
- ☐ Religion & Spirituality
- ☐ Science
- ☐ Society & Culture
- ☐ Sports
- ☐ Technology
- ☐ True Crime
- ☐ TV & Movies
- ☐ Don't know
- ☐ None of these

Podcast consumption (Note: "In the past week" version of this question also included as a Wave 2 compliance measure)

In the past month, have you listened to any of the following podcasts? (Choose as many as you have listened to.)

- ☐ Case 63
- ☐ Chapo Trap House
- ☐ Crime Junkie
- ☐ Dateline NBC
- ☐ Global News Podcast (BBC)
- ☐ Huberman Lab
- ☐ Lex Fridman Podcast
- ☐ Murder & Magnolias
- ☐ NPR News Now
- ☐ Planet Money
- ☐ Pod Save America
- ☐ Rachel Maddow Presents: Ultra
- ☐ Radiolab
- ☐ Red Scare
- ☐ Stuff You Should Know
- ☐ The Ben Shapiro Show
- ☐ The Daily (*New York Times*)
- ☐ The Ezra Klein Show
- ☐ The Intelligence (The Economist daily podcast)
- ☐ The Joe Rogan Experience
- ☐ The Jordan B. Peterson Podcast
- ☐ The Journal (*Wall Street Journal*)
- ☐ This American Life
- ☐ Today, Explained (Vox)
- ☐ Up First (NPR)
- ☐ Why Is This Happening? The Chris Hayes Podcast
- ☐ None of these

Favorite podcasts (open-ended text)

Who/what are your favorite podcasters or podcasts, *if they were not on the previous list?* (Please separate using commas.)

Podcast apps
Which apps or programs, if any, do you use to listen to podcasts?

- ☐ Amazon Music
- ☐ Apple Podcasts/iTunes
- ☐ Audible
- ☐ Castro
- ☐ Downcast
- ☐ Google Podcasts
- ☐ Overcast
- ☐ Pocket Casts
- ☐ Spotify
- ☐ Web browser (e.g., Chrome, Safari, Edge)
- ☐ YouTube
- ☐ Other
- ☐ I don't know

News podcast listening frequency

In a typical week, on how many days do you listen to a **news podcast**, for any length of time? Note that we are interested in your usage of podcasts that discuss **news about government and politics** (i.e., not just sports or entertainment).

- ○ 0 days
- ○ 1 day
- ○ 2 days
- ○ 3 days
- ○ 4 days
- ○ 5 or more days

News podcast listening duration

On days when you listen to a **news podcast**, approximately how much time on average do you spend?

- Less than 10 minutes
- 10–30 minutes
- 31–59 minutes
- 1–2 hours
- 2–3 hours
- More than 3 hours

Self-reported news consumption

How often do you get political information from the following sources:
ROWS

Network news organizations (e.g., ABC, CBS, NBC)

Cable news

National newspapers (e.g., *New York Times, Wall Street Journal*)

Local news

Public radio programs

Social media such as Facebook, Twitter, Instagram, and TikTok

News podcasts

Political commentary podcasts

YouTube

COLUMNS

Never

Less often

1 to 2 days a week

3 to 6 days a week

About once a day

Several times a day

Don't know

Knowledge and digital literacy (Wave 1)

The next set of questions helps us learn what types of information are commonly known to the public. Please answer these questions on your own without asking anyone or looking up the answers. Many people don't know the answers to these questions, but we'd be grateful if you would please answer every question even if you're not sure what the right answer is.

Cheating pledge

It is important to us that you do NOT use outside sources like the Internet to search for the correct answer. Will you answer the following questions without help from outside sources? [yes/no]

News literacy

Which of the following U.S. news outlets does NOT depend primarily on advertising for financial support?

1. PBS
2. FOX News Channel
3. The New York Times
4. MSNBC
5. The Wall Street Journal

The most important information in a news story generally appears at what point in the story?

1. In the first paragraph, in what is traditionally called the "lede".
2. In the third paragraph, after the introduction to the story, in what is traditionally called the "nut graf".
3. At the maximum narrative arc of the story, where the writer decides it should be.
4. At the end of the story, in the form of a summary.

Do television anchors generally go out and report news stories on their own, or do they mostly present stories that others produce for them?

1. Mostly report stories on their own.
2. Mostly present stories that others produce for them.
3. Equally report on their own and present stories that others produce for them.

Most mainstream media, both print and broadcast, pay their sources (people they rely on for information) for on-the-record interviews.

1. True
2. False

Political knowledge

For how many years is a United States Senator elected - that is, how many years are there in one full term of office for a U.S. Senator?

1. Two years
2. Four years
3. Six years
4. Eight years
5. None of these
6. Don't know

How many times can an individual be elected President of the United States under current laws?

1. Once
2. Twice
3. Four times
4. Unlimited number of terms
5. Don't know

How many U.S. Senators are there from each state?

1. One
2. Two
3. Four
4. Depends on which state
5. Don't know

For how many years is a member of the United States House of Representatives elected - that is, how many years are there in one full term of office for a U.S. House member?

1. Two years
2. Four years
3. Six years
4. Eight years
5. For life
6. Don't know

Political knowledge (continued)
Who is currently the Prime Minister of the United Kingdom? Is it:

- Theresa May
- Rishi Sunak
- Richard Branson
- Angela Merkel
- Boris Johnson
- Liz Truss

[**visual knowledge**] Which party is each of the following people currently associated with? If you're not sure, please guess.
ROWS

- (image of Nancy Pelosi)
- (image of Kamala Harris)
- (image of Ron DeSantis)
- (image of Gavin Newsom)
- (image of Nikki Haley)
- (image of Andrew Yang)

COLUMNS

- Democratic
- Republican
- Other

Power User scale

Please indicate your agreement with the following statements:
ROWS

- I prefer to ask friends how to use any new technological gadget instead of trying to figure it out myself.
- I feel like information technology is a part of my daily life.
- Using information technology makes it easier to do my work.
- I often have trouble finding things that I've saved on my computer.

COLUMNS

- 1 Strongly disagree
- ...
- 7 Strongly agree

References

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