



Exploring the Methodological Tradeoffs of Mixed-Mode Surveys with an Experimental Design

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Benefits of a mixed-mode design

- Researchers are increasingly using a mixed-mode survey design to obtain a representative sample.
- Allowing people to complete surveys on either the phone or the web can increase coverage and enhance representativeness.
 - A large portion of the public does not have access to the internet or prefers not to take surveys on the web (Sterrett et al. 2017).
 - Many households are wireless only and are difficult to reach via phone (Blumberg & Luke 2017).
- Research shows significant attitudinal/behavior differences between those with and without internet access in United States (Dutwin and Buskirk 2017).

Challenges with a mixed-mode design

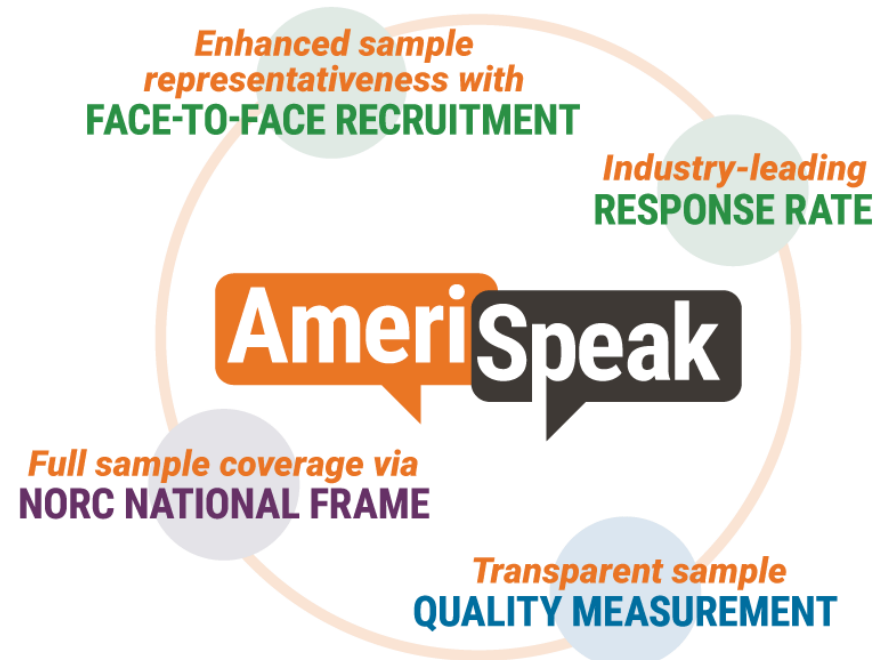
- A mixed-mode approach can potentially lead to survey mode effects.
- There could be differences between those who complete the survey on the web and those who complete it on the phone based on the interview mode.
 - Phone mode features interviewers while web mode is self-administered.
 - Phone mode presents questions verbally while web mode present questions visually.

Research question

- When there are differences between those who complete the survey on the web and those who complete it on the phone, are those a result of differences in the composition of the two samples or the survey mode?
 - Researchers want to maximize representativeness and capture any composition differences between two samples.
 - Researchers want to minimize mode effects.
- The challenge is that respondents often select their mode so it is difficult to disentangle differences due to composition and mode.
- A survey experiment is needed to explore whether differences are due to the sample composition or survey mode.

Survey experiment with AmeriSpeak Panel®

AmeriSpeak is the first U.S. probability-based household panel to combine the speed and cost-effectiveness of panel surveys with enhanced representativeness of the U.S. population.



RESPONSE RATE

The AmeriSpeak recruitment protocol includes NORC field interviewers for face-to-face recruitment, resulting in the highest AAPOR response rate among U.S. panels.

SAMPLE REPRESENTATIVENESS

AmeriSpeak is representative of the entire U.S. population because it leverages NORC's National Frame, the industry leader with 97% coverage of the U.S. population (better than address-based sampling).

TRANSPARENCY IN SAMPLING

Through *NORC Card*, AmeriSpeak delivers a quantitative measurement of sample quality for clients, providing an objective measure of sample representation.

Experimental design

Panelist usual mode

Experimental study mode

Phone

Phone

Phone-Phone

Web

Phone

Web-Phone

Web

Web-Web

Sample details

- Drew a nationally representative sample.

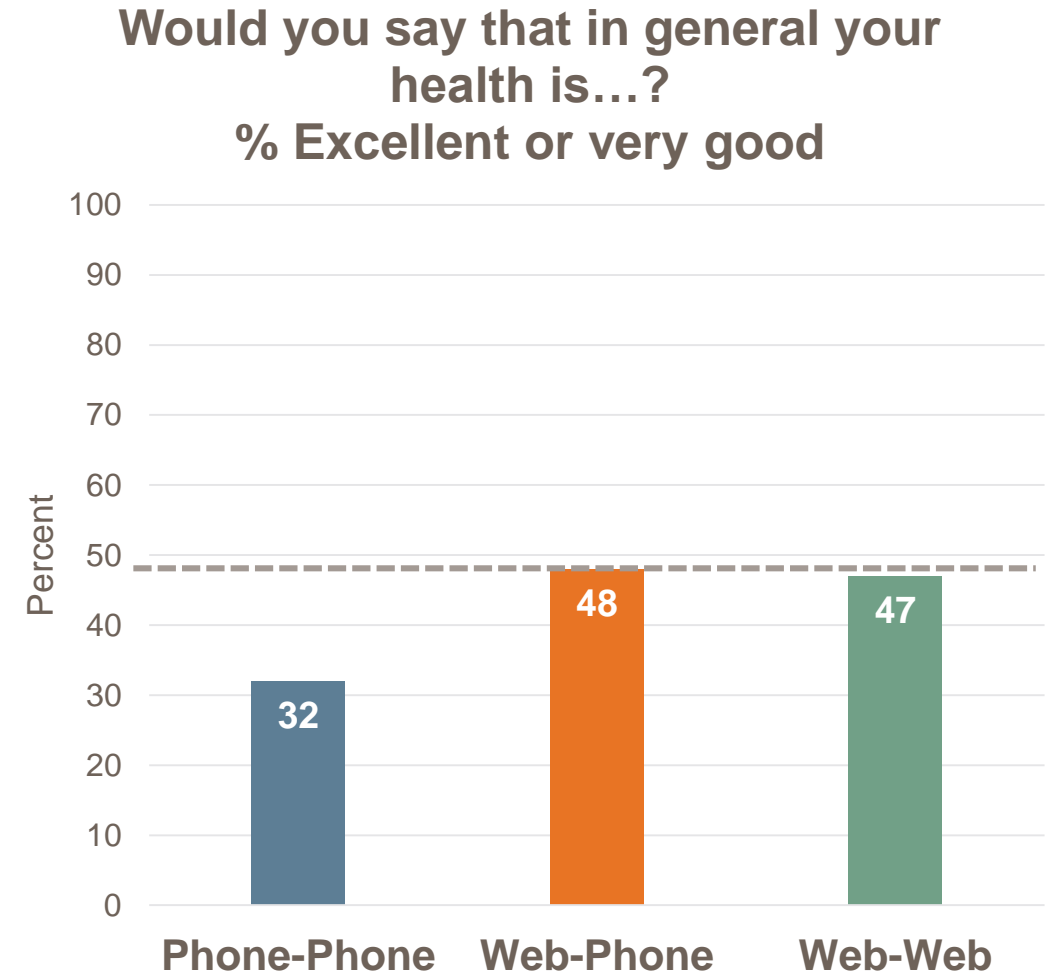
| Group | Sample size |
|-------------|-------------|
| Web-Web | 1,801 |
| Web-Phone | 1,017 |
| Phone-Phone | 880 |
| Total | 3,698 |

Survey details

- A 15-minute survey with wide range of topics including:
 - Political attitudes
 - Views on social issues and the economy
 - Personal finances
 - Participation in social groups
 - News behavior
 - Personal health and medical care

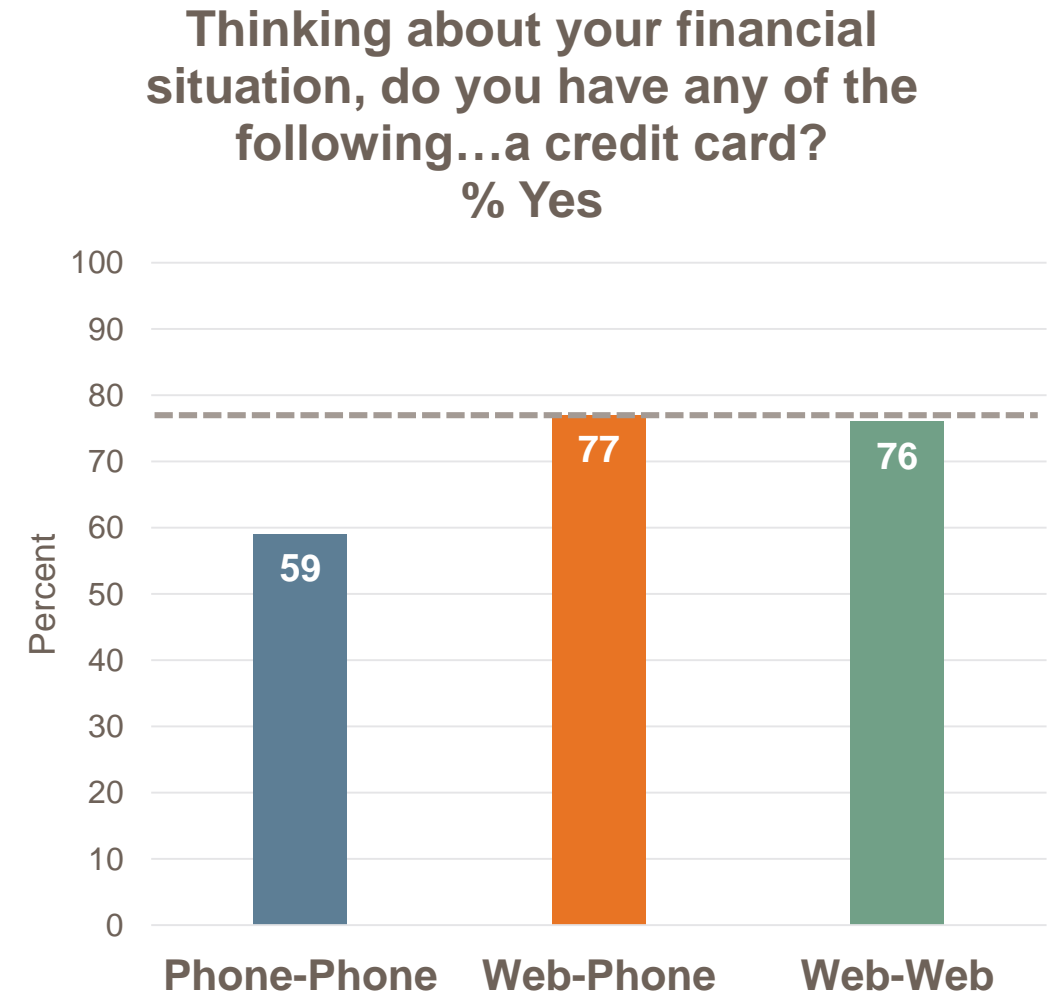
Evidence of sample composition effects

- Large differences in self-reported health between Phone-Phone and Web-Web groups, and the Web-Phone group looks very similar to Web-Web group.
- Differences between Phone-Phone and Web-Web group are significant in regression controlling for age, gender, race/ethnicity, income, education, and partisanship.



Evidence of sample composition effects

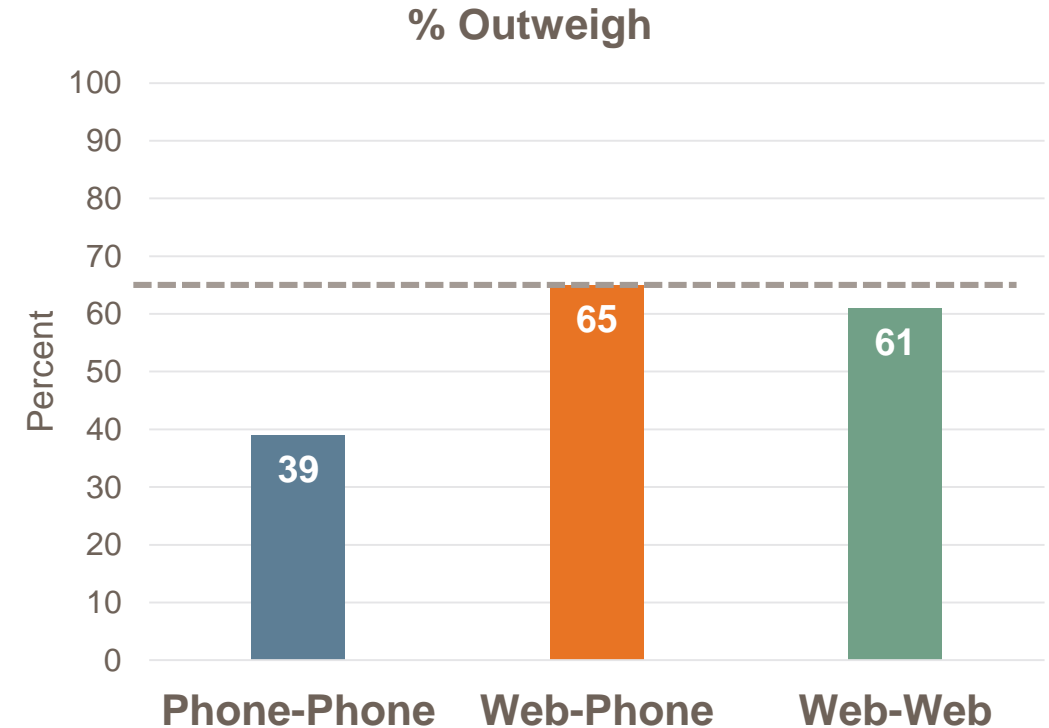
- Large differences in likelihood of having a credit card between Phone-Phone and Web-Web groups, and the Web-Phone group looks very similar to Web-Web group.
- Differences between Phone-Phone and Web-Web group are significant in regression controlling for age, gender, race/ethnicity, income, education, and partisanship.



Evidence of sample composition effects

- Large differences in likelihood of saying benefits of immigration outweigh the risks between Phone-Phone and Web-Web groups, and the Web-Phone group looks very similar to Web-Web group.
- Differences between Phone-Phone and Web-Web group are significant in regression controlling for age, gender, race/ethnicity, income, education, and partisanship.

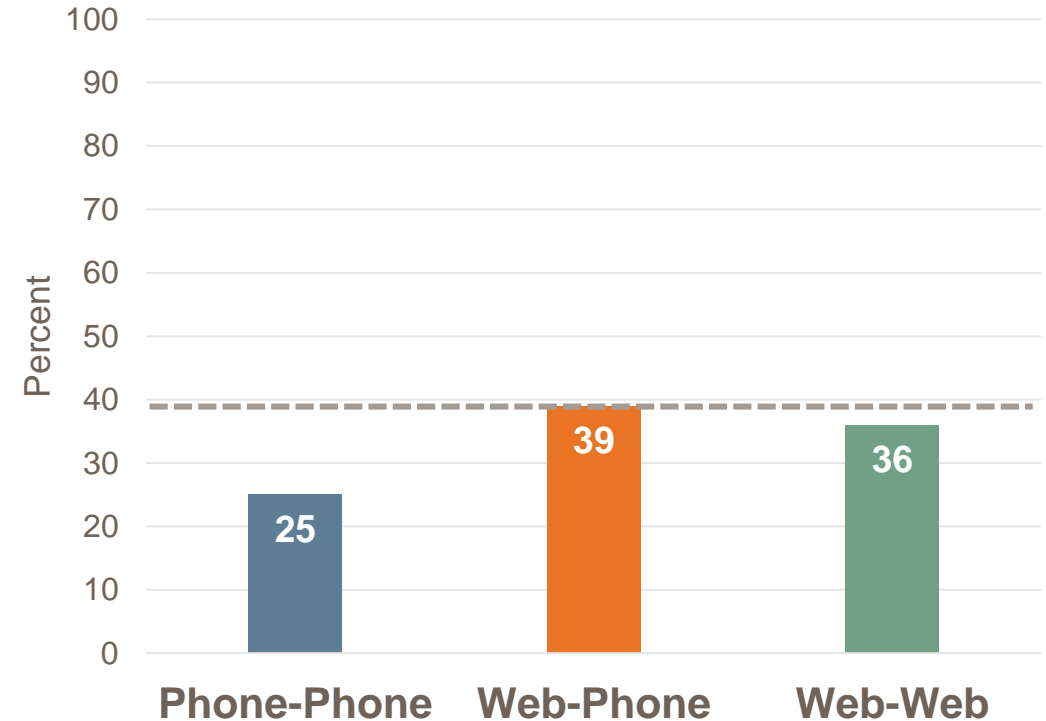
In general, do you think the benefits the United States gets from legal immigration outweigh the risks, or are the risks to the United States great enough so that legal immigration should be further limited?



Evidence of sample composition effects

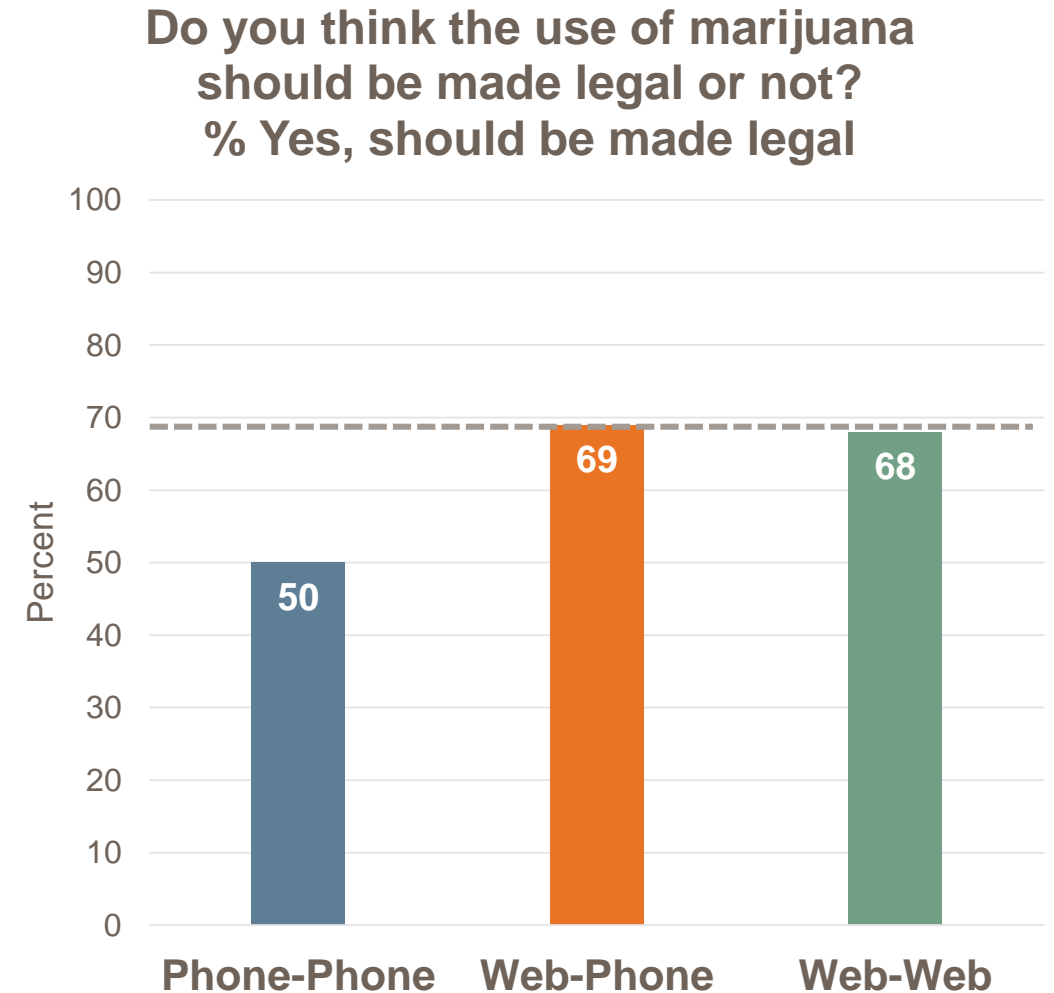
- Large differences in general trust between Phone-Phone and Web-Web groups, and the Web-Phone group looks very similar to Web-Web group.
- Differences between Phone-Phone and Web-Web group are significant in regression controlling for age, gender, race/ethnicity, income, education, and partisanship.

Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people?
% Most people can be trusted



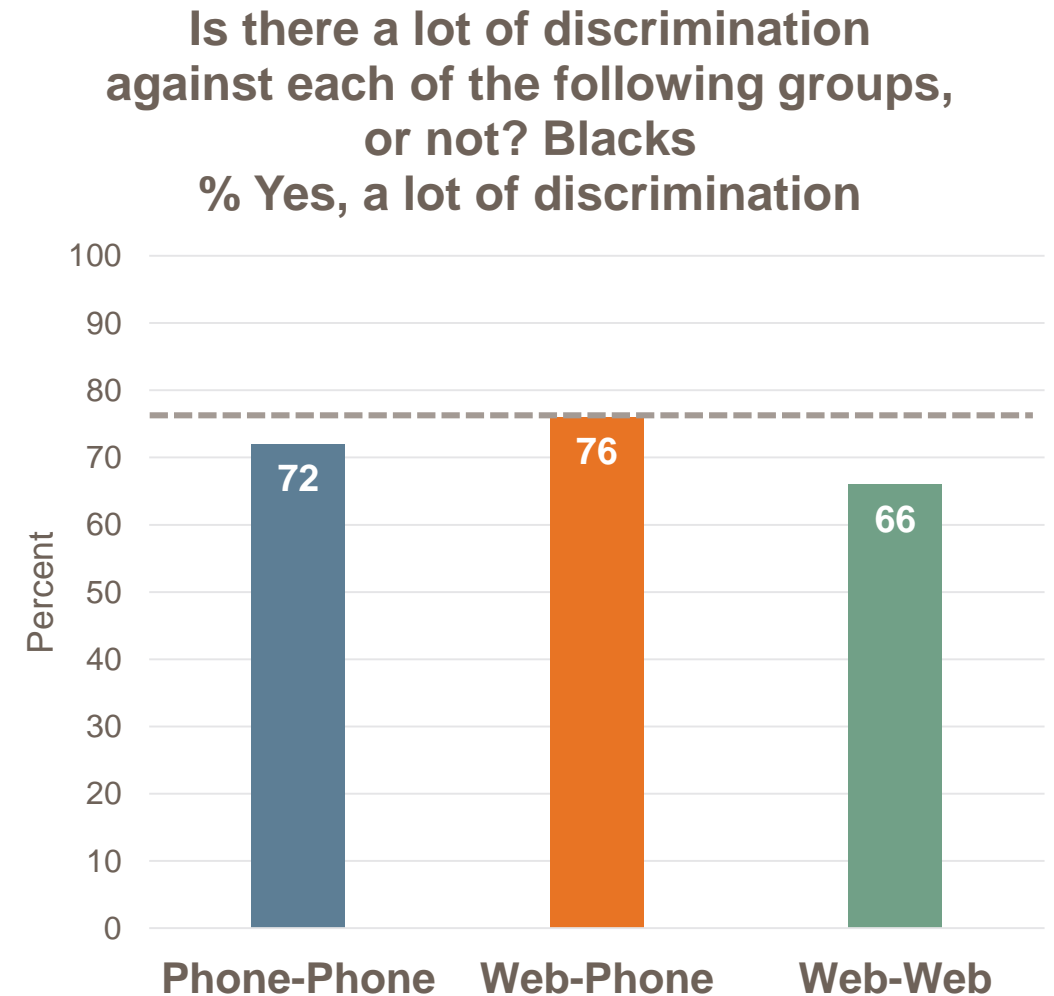
Evidence of sample composition effects

- Large differences in view toward legalizing marijuana between Phone-Phone and Web-Web groups, and the Web-Phone group looks very similar to Web-Web group.
- Differences between Phone-Phone and Web-Web group are significant in regression controlling for age, gender, race/ethnicity, income, education, and partisanship.



Evidence of sample mode effects

- There are differences in attitudes about discrimination against blacks between Phone-Phone and Web-Web groups, and the Web-Phone group looks more like Phone-Phone group.
- Questions such as this have potential mode effects related to social desirability bias and differences between interviewer/self administered modes.



Preliminary takeaways

- There is strong evidence that offering a mixed-mode design improves sample coverage and the representativeness of the survey.
 - Those who choose to complete a survey in one mode (phone) are very different on some key attitudinal and behavioral issues than those who choose to complete the survey in another mode (web).
 - Many AmeriSpeak phone panelists are recruited by in-person non-response follow-up and these cases help improve sample representativeness (Bilgen 2017).
- Researchers should be aware of potential mode effects and design the questionnaire to mitigate such effects.
 - Limit questions prone to social desirability bias.

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Thank You!



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