




The Undercounted: How NORC at the University of Chicago built the probability-based AmeriSpeak Panel to improve representativeness of America's most difficult-to-reach populations

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The NORC Presentation Team




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Outline

- AmeriSpeak: America's High Response Rate Probability Panel
- Mode Effects: A Unique Test Using the AmeriSpeak Panel
- The Impact of NonResponse Follow-Up on AmeriSpeak Data Quality



All About AmeriSpeak



AmeriSpeak By the Numbers

- Number of Participating Households → **35K**
(50 States + DC)
- Client Surveys Completed → **300+**
(Since June 2015)
- Panel Recruitment Response Rate → **34%**
(AAPOR RR3)

AmeriSpeak.NORC.org/research

How Does AmeriSpeak Address the Challenge of Representing All of the Population?

2-STAGE RECRUITMENT

Mail/Phone Contacting → Face-to-Face (F2F) Contacting

AmeriSpeak Sampling Frame: NORC National Frame

- Uses the NORC National Frame
 - Area probability design based on 126 national frame areas (NFAs).
 - 2ND stage selects segments within each NFA (1,514 selected)
 - DSF used for addresses; supplemented with in-person enumeration in rural areas to increase coverage to 97%.
 - NFAs with at least 1.5 million selected with certainty
 - At least one NFA per state
 - Supplementation with general DSF sample in 2019 to increase representativeness in key states
 - Segments with higher % of young adults and minorities (Hispanic, NH-Black) oversampled
 - High Hispanic tracts oversampled

AmeriSpeak Recruitment Methodology

- Initial Recruitment**
 - Pre-notification postcard
 - +5 days, 9 x 12 recruitment packet w/ pre-incentive, study brochure, and privacy policy.
 - +11 days, reminder postcard
 - +18 days, reminder postcard
 - Call-ins allowed throughout
 - +25 days, call-outs to matched telephones
- NRFU Recruitment**
 - Federal Express study brochure and enhanced pre-incentive
 - In-person recruitment

How do we sample for NRFU?

- ~ 1 in 5 non-respondents are subsampled for NRFU
- We use consumer vendor data to target and oversample HHs that are likely to have
 - Young adults (18-34 years)
 - Hispanic, non-Hispanic Black
- Benefits:**
 - Significantly improves our recruitment rate; from 6% to 33-35%
 - Brings in younger, Hispanic & NH-Black, High school or less panelists
- Cost:**
 - Each NRFU recruit is ~1.5x more costly than an initial recruit
 - Slightly increases the design effect

52%
of
AmeriSpeak
recruited via
NRFU

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Response Rates

- Panel Recruitment Rate**
 - 34%
- Panel Retention Rate**
 - ~88-89%
- Survey Completion Rate**
 - Varies depending on survey; 25-40%
- Cumulative Response Rate**
 - Product of the above; approximately 9-15%

Response Rates

Metric	Value
Weighted Recruitment Rate	33.7%
Weighted HH Retention Rate	88.1%
Screener Completion Rate	36.1%
Survey Completion Rate	87.9%
Weighted Cumulative Response Rate	9.4%

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AmeriSpeak Weighting and Benchmarking

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Panel Weighting Procedure

- HH base weight**
 - Selection probability of addresses
 - Combine different sample sources
 - Combine different years
 - NRFU (non-response follow up)
 - Unknown eligibility
 - Ineligibles: businesses, vacation homes, vacant properties, no one 18+ in HH, etc.
 - Eligibles: HHs with 18+
 - Non-response among eligible HHs

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Panel Weighting Procedure (cont.)

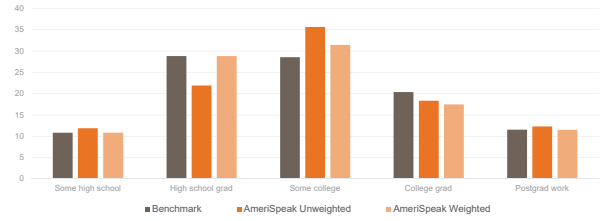
▪ **Panelist final weight**

- Non-response among eligible 18+
 - About 2.1 eligibles per HH, we recruit only 1.1
- Raking
 - Current raking dimensions:
 - Age group (18-24, 25-29, 30-39, 40-49, 50-59, 60-64, 65+ years);
 - Sex (male, female);
 - Census Division;
 - Education (less than high school, high school graduate, some college/college graduate);
 - Race/ethnicity (Hispanic, non-Hispanic Black, non-Hispanic White, All Other);
 - Housing tenure (owner, other); and
 - Household phone status (cell-phone-only, dual user, landline-only/phoneless).
 - Looking into raking by age * gender interactions
 - Raking to more variables or categories of variables increases DEFF



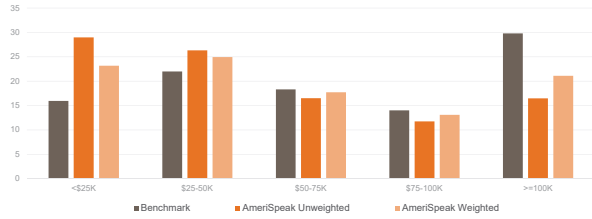
AmeriSpeak Panel Demos vs. Benchmark

Education



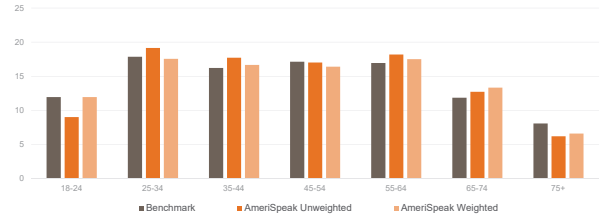
AmeriSpeak Panel Demos vs. Benchmark (cont.)

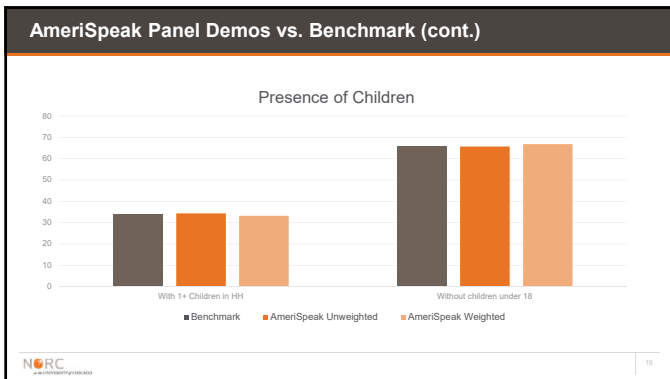
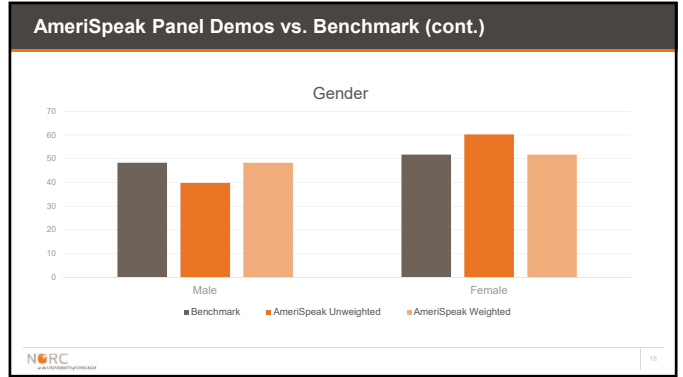
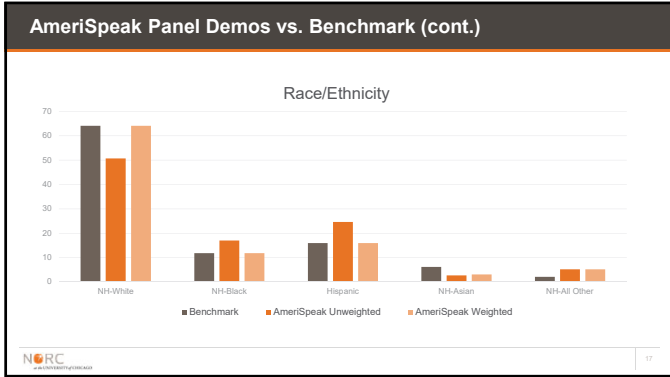
Income



AmeriSpeak Panel Demos vs. Benchmark (cont.)

Age





AmeriSpeak Profile-based Estimates vs. Benchmarks

Estimate	AmeriSpeak	Benchmark	Delta
Ever Told You Have A Stroke	2.3%	3.2%	0.9%
Ever Told You Have A Cancer (Other Than Skin Cancer)	5.7%	6.8%	1.1%
Ever Told You Have A Depressive Disorder	18.7%	19.0%	0.3%
Ever Told You Have Diabetes	12.5%	11.8%	0.7%
Ever Told Blood Pressure High	32.0%	33.4%	1.4%
Exercise in Past 30 Days	71.3%	72.8%	1.5%
Smoked At Least 100 Cigarettes in Entire Life	41.0%	40.1%	0.9%
Now Smoke Cigarettes Every Day	27.2%	27.3%	0.1%
Now Smoke Cigarettes Some Days	13.7%	13.2%	0.5%
Now Smoke Cigarettes Not At All	58.8%	59.3%	0.5%
Mean Num of Cigarettes Now Smoke Each Day (Among Every Day Smokers)	15.8	15.6	0.2

Note:
 1. The 2013-2014 National Adult Tobacco Survey (NATS) is used as benchmark for the mean number of cigarettes now smoke each day.
 2. The 2017 Behavioral Risk Factor Surveillance System (BRFSS) is used as benchmark for all other estimates.
 3. Both AmeriSpeak profile-based estimate and benchmark are weighted.

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AmeriSpeak Profile-based Estimates vs. Benchmarks: Chronic Health Conditions

Has a doctor ever told you that you had...	AmeriSpeak	Benchmark	Delta
A heart attack	2.6%	4.3%	1.7%
Angina or coronary heart disease	2.4%	4.3%	1.9%
A stroke	2.1%	3.2%	1.1%
Any kind of diabetes or high blood sugar	11.5%	10.8%	0.7%
Cancer (other than skin cancer)	5.9%	6.6%	0.6%
Depression	18.8%	16.5%	2.3%

Note:

1. The 2016 Behavioral Risk Factor Surveillance System (BRFSS) is used as the source of the benchmarks.
2. Both data sources are weighted.

Mode Effects: A Unique Test Using the AmeriSpeak Panel

Benefits of a mixed-mode design (selection effects)

- 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).

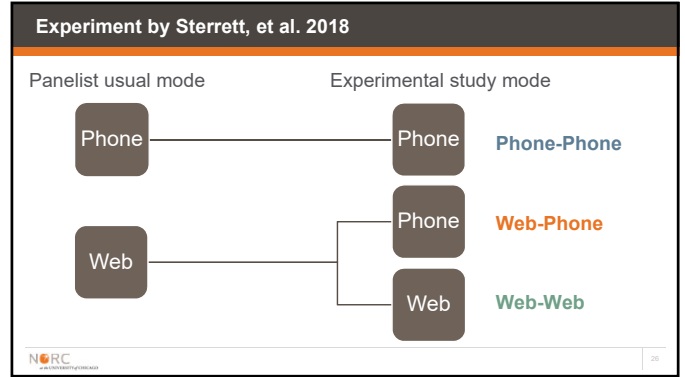
Challenges with a mixed-mode design (measurement effects)

- A mixed-mode approach can potentially lead to mode measurement 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 due to mode selection effects or mode measurement effects?
 - Researchers want to maximize representativeness and capture mode selection effects.
 - Researchers want to minimize mode measurement effects.
- The challenge is that respondents often select their mode so it is difficult to disentangle mode selection and measurement effects.
- A survey experiment is needed to explore whether differences are selection effects or measurement effects.

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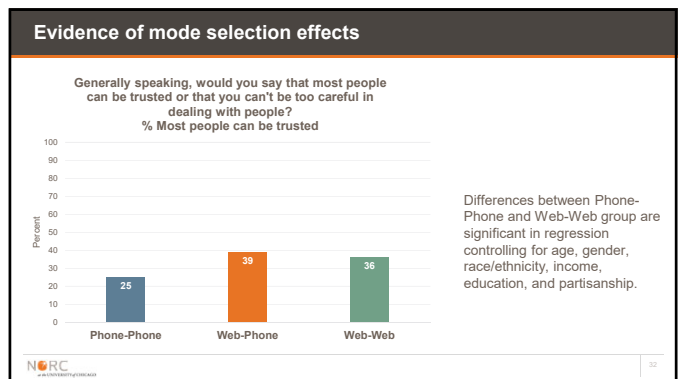
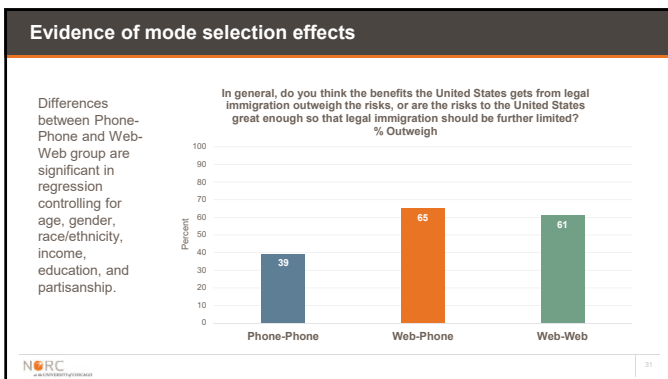
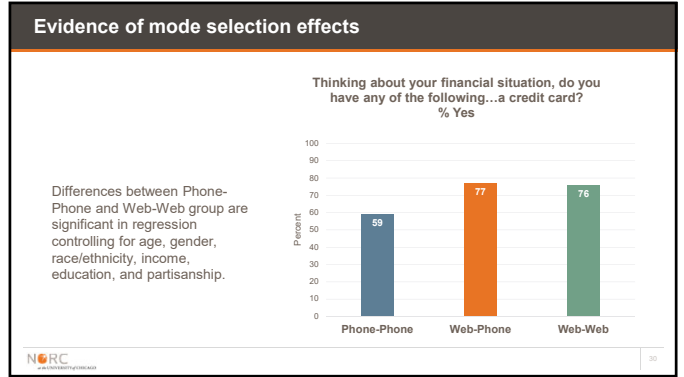
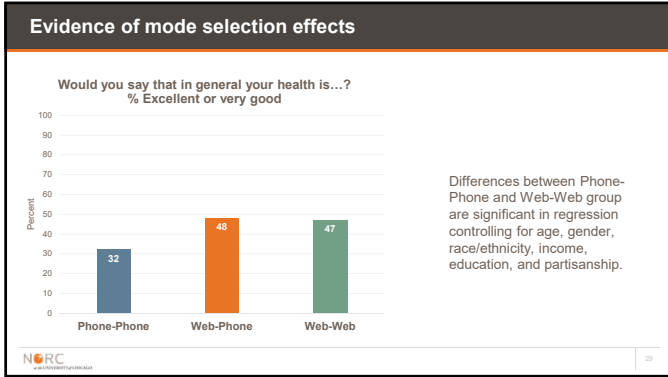
Sample details

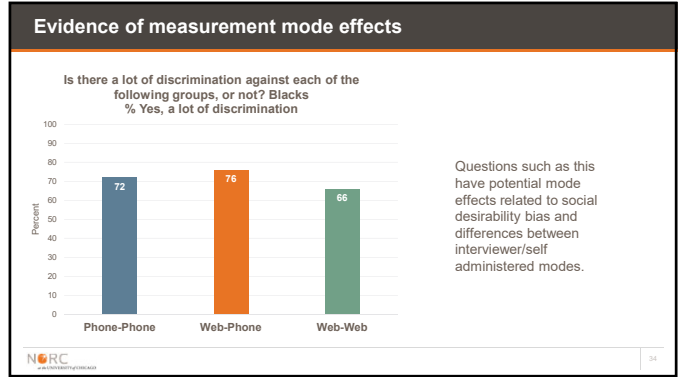
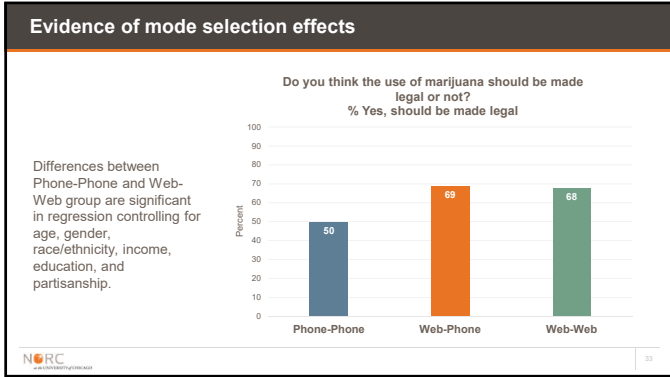
- Drew a nationally representative sample.

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

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- ### 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
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- ### 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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The Impact of Non-response Follow-up on AmeriSpeak Data Quality

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Research Questions

What is the impact of nonresponse follow-up (NRFU) during panel recruitment on AmeriSpeak Data Quality and Study Estimates?

- What is the impact of F2F NRFU on panel response rates (AAPOR RR3)?
- Does F2F NRFU improve demographic representation of the panel sample?
 - Does F2F NRFU have an impact on the study estimates?
 - In what ways NRFU panel recruits differ in their opinions, attitudes, and behaviors in comparison to the initial recruited panelists among different Amerispeak studies?

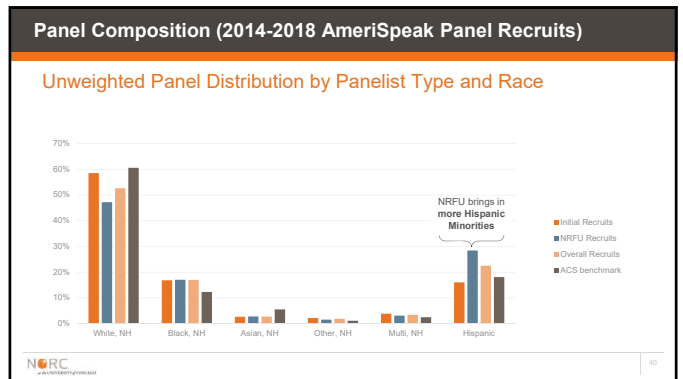
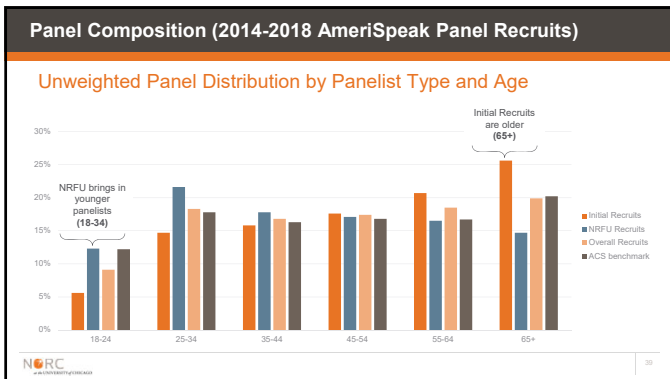
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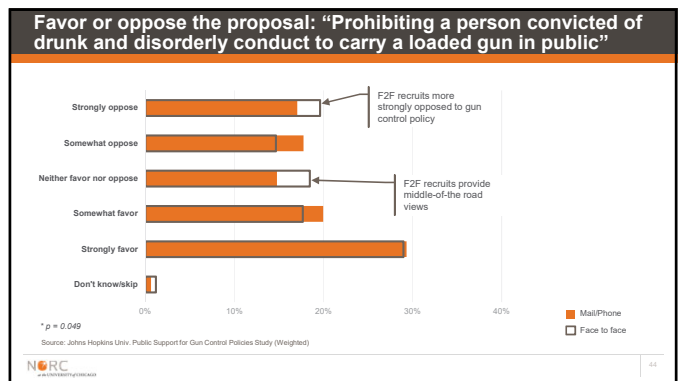
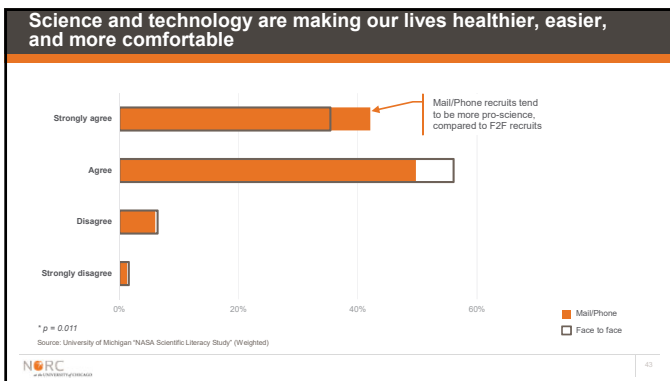
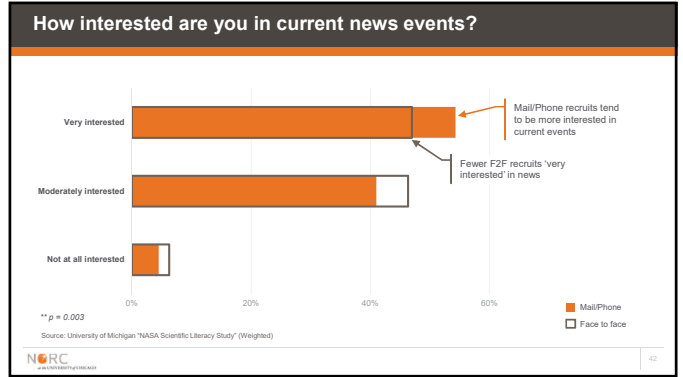
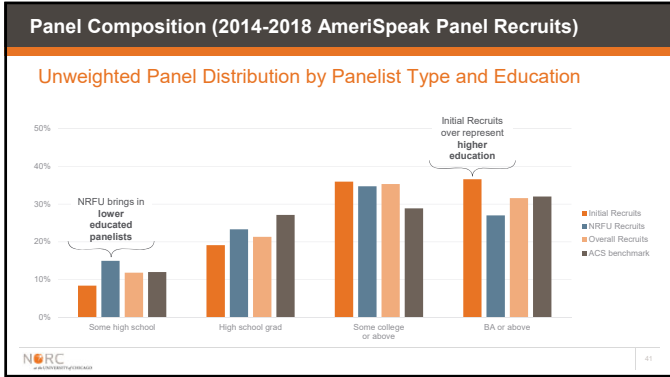
AAPOR RR3 (2014-2018 AmeriSpeak Panel Recruits)

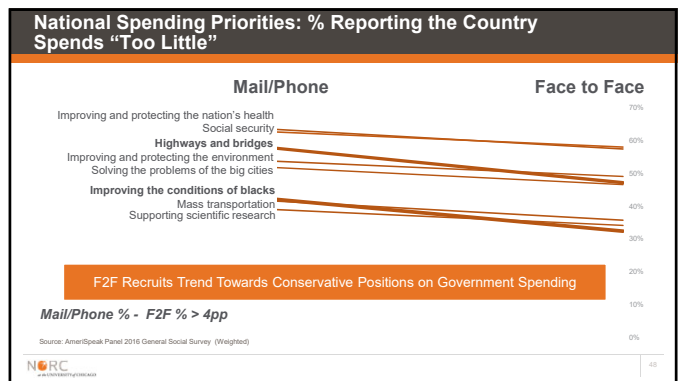
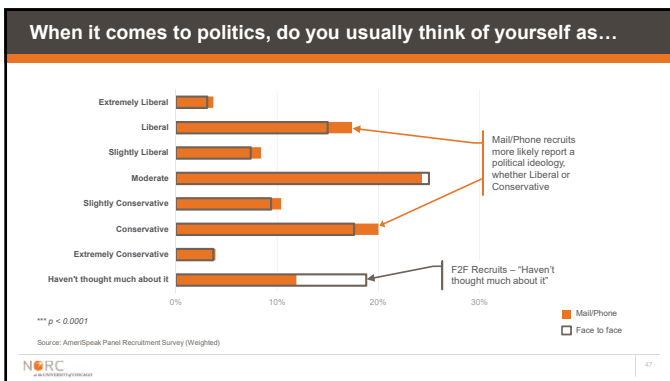
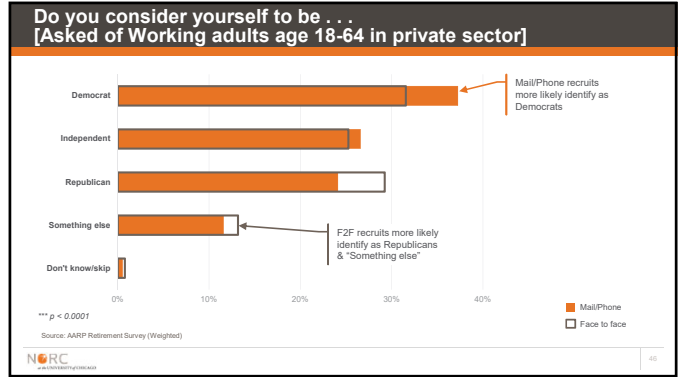
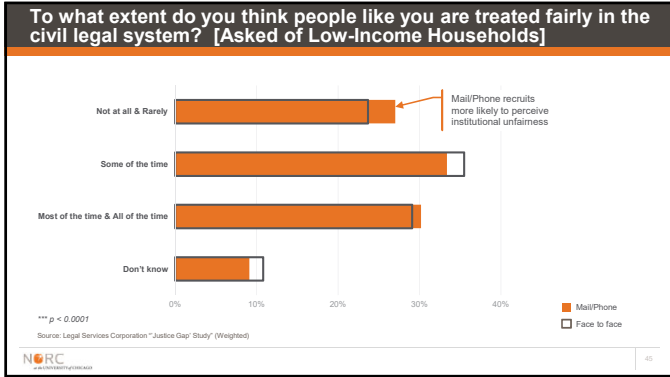
Description	Response Rate (AAPOR RR3, Weighted)
Household Response Rate due to Initial Recruitment	5.6%
Household Response Rate due to NRFU	28.6%
Household Response Rate	34.2%

NRFU
boosts
response
rate by
6.1 times

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SUMMARY – IS FACE TO FACE RECRUITMENT MAKING A DIFFERENCE?

Mail/Phone panelists – recruited with less effort
 more prone to being very interested in news, pro-science, and liberal policy positions


F2F panelists – recruited after greater effort
 less prone to being very interested in the news and more likely to report conservative policy positions

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QUESTIONS!

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TESS Experiments



- **Funded by National Science Foundation**
- **Must be experimental and original**
- **Free access to AmeriSpeak Panel**
- www.tessexperiments.org

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THANK YOU.

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