Bias Reduction through Rural Coverage for the AmeriSpeak Panel

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What is AmeriSpeak?

- NORC’s AmeriSpeak is a household, multi-client panel
- Households selected from NORC’s National Probability Frame are invited to join AmeriSpeak by telephone or web
Other Web Panels Recruit with…
- Address-Based Sampling (ABS) using USPS postal database
- Random-Digit Dialing
- Non-probability online sources
- List samples of customers, employees, members, etc.

NORC’s AmeriSpeak Panel Recruits from…
- NORC’s National Frame, A Full Area-Probability Sample
  - General Social Survey (GSS)
  - Survey of Consumer Finances (SCF)
  - All other national in-person studies at NORC
AmeriSpeak Recruitment Methodology

NORC National Frame

Invited Sample

Initial Recruitment
- Postcards
- Recruitment Package
- Email
- Telephone

WEB | Phone
Recruitment Profile Survey

Non-Responders
Random Selection

Not Selected

Responders

Active for Client Studies

Nonresponse Followup
Face to Face Interviewing

at the UNIVERSITY of CHICAGO
1. Higher Coverage
   - Higher than ABS using only USPS DSF (in-person)
   - Higher than Phone Surveys, even those with Cell coverage
   - Higher even than mail surveys that mail to P.O. Boxes and other non-city-style addresses

2. Higher Response Rate
   - In-Person NRFU determines response rate
     - If not selected for NRFU, zero weight
     - In-Person interviewing mode has highest response rate
   - Only cases outside NRFU sampling are hard appointments and hostile refusals

3. More Representative Sample
   - Higher response rates mean less self-selection bias
USPS Delivery Sequence File (DSF)

- DSF is a frame for all U.S. addresses
- Some addresses not locatable/geocodeable
  - Rural Route addresses
  - Post Office addresses
  - These are NOT “city-style” addresses
- These addresses mailable, but
  - Can’t be matched to phone numbers
  - Can’t be visited in-person
  - Can’t be tracked in a multi-mode survey
First stage sampling units are National Frame Areas (NFAs)

- Entire Metropolitan Area (one or more counties)
- One or more counties (single counties unless < 10,000 population)

Three types of NFAs

- Certainty Metropolitan areas contain 56% U.S. population/8% area
- Other “Urban” areas well covered by USPS DSF (30% U.S. pop)
- “Rural” areas NOT well covered by USPS DSF (14% U.S. pop)

Second stage sampling units are...

- Census Tracts in areas well covered by USPS DSF
- Block Groups in “Rural” areas NOT well covered by USPS DSF

Total of 1,514 segments (second-stage sampling units)
Where is In-Person Listing Needed?

- Determined for all 1,514 segments
- We compare
  - USPS DSF city-style address counts WITH
  - 2010 Decennial Census counts
- If less than 90% coverage, in-person listing
- If at least 90% coverage, use DSF
- If Census tracts < 90% coverage, one block group selected PPS and re-evaluated
- 121 out of 1,514 (8%) segments required in-person listing
Higher Coverage with In-Person Listing

Coverage in NORC’s National Frame

- 3 percent undercoverage
  - DSF 90% requirement
  - Human error (listing)
  - Time lags
    - New construction

Sample coverage improved by 5 PP due to listing
Higher Panel Recruitment Response Rate

- **Cumulatively through 2015: 36.6% AAPOR RR3 Weighted**
  - This is the full AmeriSpeak panel available now
  - Includes 2015 recruitment and two pilots (one with no NRFU)
- **For 2016, AmeriSpeak is targeting a 30% AAPOR RR3 Weighted**
  - Reducing the share of NRFU-sourced recruits from approximately 50% in 2015 to 25% for 2016
  - Testing alternative NRFU recruitment methodologies in 2016 (phone-based follow-up versus in-person follow-up)

AmeriSpeak growing to 20K general population U.S. adult households in 2016, 30K in 2017
More Representative Through Rural Inclusion

- Does the rural portion increase representativeness?
- AmeriSpeak (All Cases), as well as its two components
  - DSF-only and List-only
- VERSUS Benchmarks for several variables
- Order is
  - DSF-only, AmeriSpeak, Benchmark, List-only
- Focus on the left three bars
- If they are monotonic, or then rural coverage improves representativeness
More Representative? Demographics 1 of 2

No improvement  No improvement  “Improvement”
More Representative? Demographics 2 of 2

![Bar chart showing demographics](chart.png)

- **DSF-only**
- **AmeriSpeak**
- **Benchmark**
- **List-only**

**18-34**
- Improvement
- No improvement
- Improvement

**65 plus**
- Improvement
- No improvement
- Improvement

**Married**
- Improvement
- No improvement
- Improvement

**“Improvement”**

**No improvement**

**Improvement**
More Representative? Education and Income

- **HS or Less**
- **College Grad**
- **Income < 35k**
- **Income > 50k**

- **DSF-only**
- **AmeriSpeak**
- **Benchmark**
- **List-only**

**Improvement**

- HS or Less: Improvement
- College Grad: Improvement
- Income < 35k: Improvement
- Income > 50k: No improvement
More Representative? Household Characteristics

- Lives Alone
- 5+ in HH
- Owner of HH

Improvement?
- No improvement
- Improvement

Bars represent:
- DSF-only
- AmeriSpeak
- Benchmark
- List-only
More Representative? Internet and Phone
More Representative? Political Affiliation

- Liberal: Improvement
- Moderate: No improvement
- Conservative: Improvement

Graph showing the distribution of political affiliation across improvement categories.
More Representative? Miscellaneous

- Has a Pet
  - No improvement

- Employed
  - No improvement

Legend:
- DSF-only
- AmeriSpeak
- Benchmark
- List-only

No improvement
Summary

- **NORC’s AmeriSpeak**
  - Uses a full area-probability design to improve coverage
  - Uses in-person recruiting
    - To improve weighted response rates
    - To reduce self-selection bias

- **Added Rural Coverage**
  - Improves Representativeness in Education, Low Income HH’s, Large HH’s?, Internet and Phone, Marital Status, Owners/Renters
  - Does not improve representativeness in Gender, Minorities, Age, High Income HH’s, Single-Person HHs, Pet Owners
Thank You!

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