SAMPLING HARD-TO-REACH POPULATIONS

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PROBABILITY VS. NON-PROBABILITY SAMPLING

Probability
- Generalize to the population from which sample is drawn
- Unbiased results
- Known, non-zero probability of selection

Non-Probability
- Exploratory research
- Convenience
- Probability of selection unknown

What makes a population easy to reach or hard to reach?

It depends on . . .
- How common/rare your target population is
- How geographically clustered/dispersed your population is
- Whether or not you have a list of respondents
- Mode of data collection

EASY-TO-REACH POPULATIONS: HIGH ELIGIBILITY

- Populations that have higher eligibility for study
  - Adults 18 years of age or older
  - Males 18 years of age or older
- Populations that have lower eligibility for study
  - Adults 40 and older
  - Females 40 and older

EASY-TO-REACH POPULATIONS: RARE & GEOGRAPHICALLY CLUSTERED

- Rare populations that you know are geographically clustered
  - People who live in trailer parks
  - People who live within two miles of a specified train station
  - People who live within a specified ZIP Code
  - Populations of a specified racial or ethnic group
  - Very high/low income households
EASY-TO-REACH POPULATIONS:
LIST SAMPLES
- Populations whose members are included on a list
  - University faculty, students, or staff
  - Members of a professional organization
  - List of people with emails for on-line survey
  - List of cities to ask about tax revenue

MODES OF DATA COLLECTION
- Phone
- Face to face/in person
- Mail
- Web/e-mail
- Some mixture of above

CONTACTING EASY-TO-REACH POPULATIONS: SELECTING MODE
- List samples (depends on what you have/can collect)
  - Phone
  - E-mail
  - Postal address

CONTACTING EASY-TO-REACH POPULATION: SELECTING MODE
- Address-based sample (ABS) frame
  - Mail questionnaires
  - Face-to-face interviews

CONTACTING EASY-TO-REACH POPULATION: SELECTING MODE
- Address-based sample at national or state level for high eligibility studies
- Address-based sample frame for smaller geographic area
  - Population within 2 miles of a train station
  - Within a ZIP-code
  - Areas of community that are defined by levels of income or race/ethnicity composition

EASY-TO-REACH BECOMES HARD-TO-REACH
- Contacting a nationwide sample by phone
POPULATIONS BECOMING MORE HARD-TO-REACH: LANDLINE PHONE CHANGES

- Increase of general population that is cell only
- Cell phone usage differences within the population
  - Race and ethnicity
  - Age
  - Income
  - Region of country

EASY-TO-REACH BECOMES HARD-TO-REACH

Contacting national sample using cell phone and landline phones (dual frame design)

POPULATIONS BECOMING HARDER-TO-REACH: CELL PHONE ISSUES

- Difficult to target smaller geographies by cell phone
  - Cell phone only individuals who have a cell number from a state, but who do not live in the state.
  - Cell phone only individuals who live in state who do not have cell number from that state
  - Smaller geographies even more difficult to target.

HARD-TO-REACH POPULATIONS: RARE AND NOT GEOGRAPHICALLY CLUSTERED

- Persons in small age groups
  - Young adults aged 18-35
  - Older adults aged 65 or older
- Households with school-aged child
- People with specific illness
- Homeless persons
- Illegal drug users

RARE, NON-CLUSTERED, AND MOBILE POPULATIONS

- Capture-Recapture
- Homeless shelters (SRL’s experiences)

NON-CLUSTERED RARE POPULATIONS

Network (or Multiplicity) Sampling

- Includes non-household members with whom informant is familiar, such as close relatives
- Informant must know needed information about network members
- Informant must know size of network
- Weighting
RARE POPULATIONS THAT ARE NOT CLUSTERED

- Households with school-aged children
- Persons in small age groups

NON-PROBABILITY SAMPLING TECHNIQUES

- Snowball
- Name spotting
- Convenience (intercept)
- Advertising for special populations in the media

Thank you!

Please be sure to complete your evaluation when you receive it later today . . .