



Do Fences Really Make Good Neighbors?

A Side-by-Side Comparison of RDD and Geofencing
Methods Using Risk Factor Surveys



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New Sampling and Measurement Opportunities





Challenges with Traditional Survey Methods

Measurement

- People must notice and encode events to report them later
- Recall of behaviors and events is imperfect; worse with time
- Intentions to act are less predictive than actual behavior

Sampling

- Must screen many households to identify eligible respondents
 - Particularly for rare characteristics or infrequent activities
- Expensive 
- Time consuming 



Research Motivation

Measurement

Improve accuracy of health measures by asking respondents about their experiences in situ (e.g., at the doctor's office or at the gym).

Sampling

Know when respondents might be likely to engage in a particular behavior and ask them to report in that moment.

New Source for Public Health Estimates

Can the resulting data produce statistical estimates that are comparable to traditional survey methods?



Our Methodology



Panel

MFour's *Surveys On The Go*® Opt-in Panel (www.mfour.com)

- **Largest mobile panel in US (2M active members)**
- **Non-Probability selection, participation largely spread by word-of-mouth**
 - No advertising, no internet pop-up ads
- **Completely owned/managed by MFour**
 - Limited overlap with other online opt-in panels
- **Specializes in:**
 - Point-of-Emotion® measurement
 - Diary studies; in-home measurement; and ad, entertainment, and behavior trackers

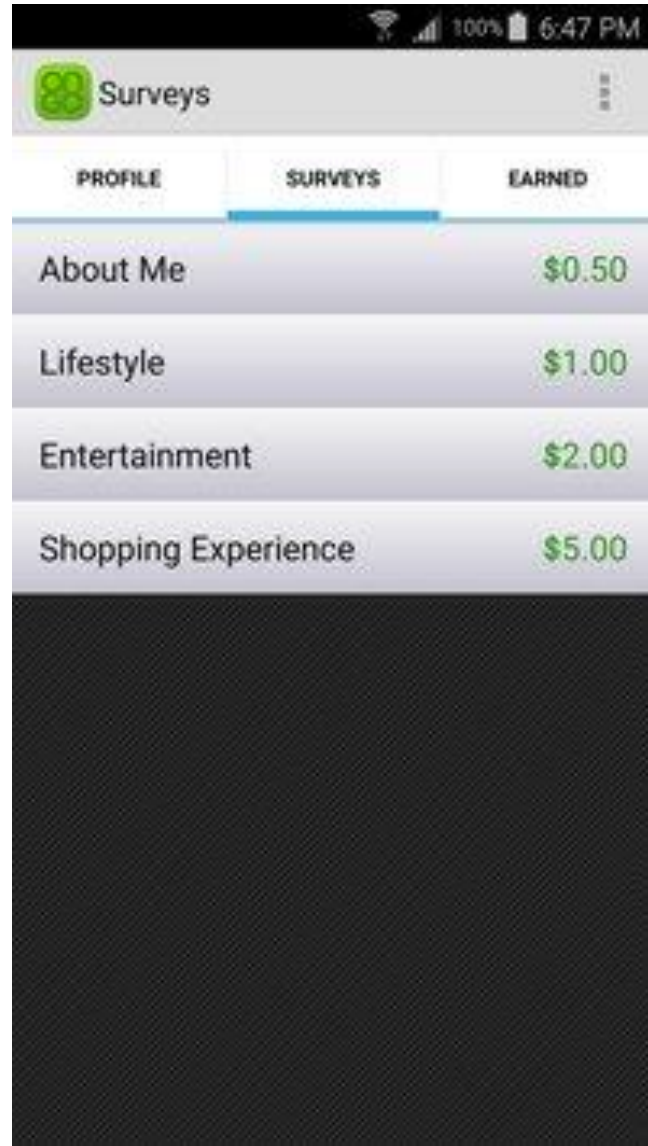


So what does it look like?

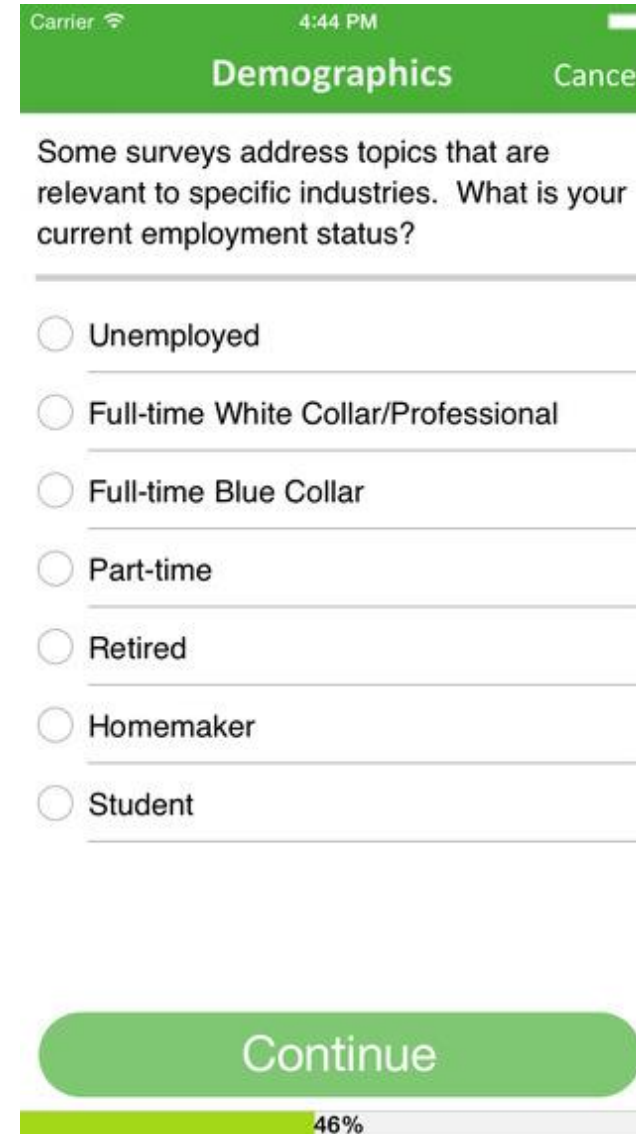


Smartphone Panel Interface

Panel Member Dashboard



A Single Question

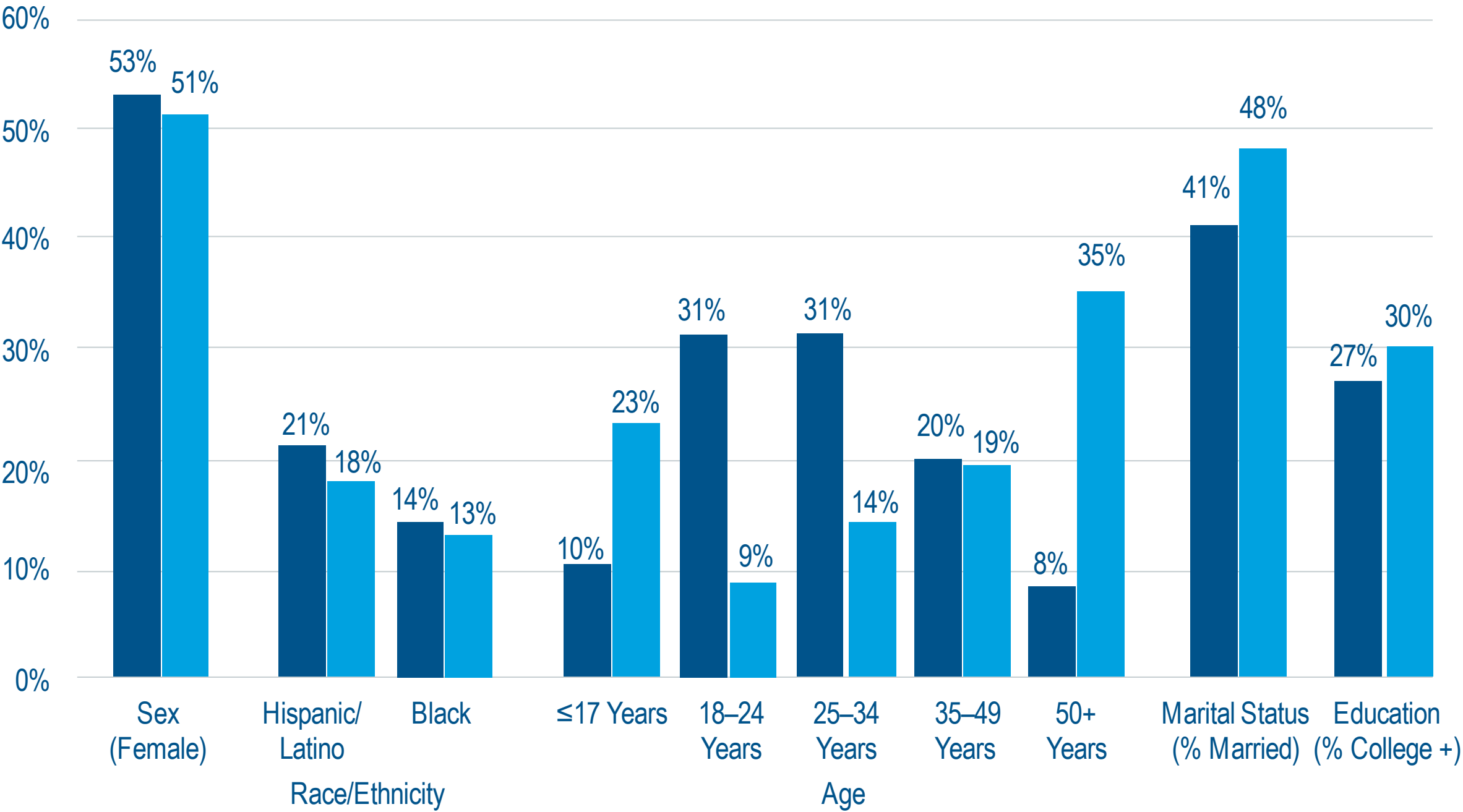




But is it representative?



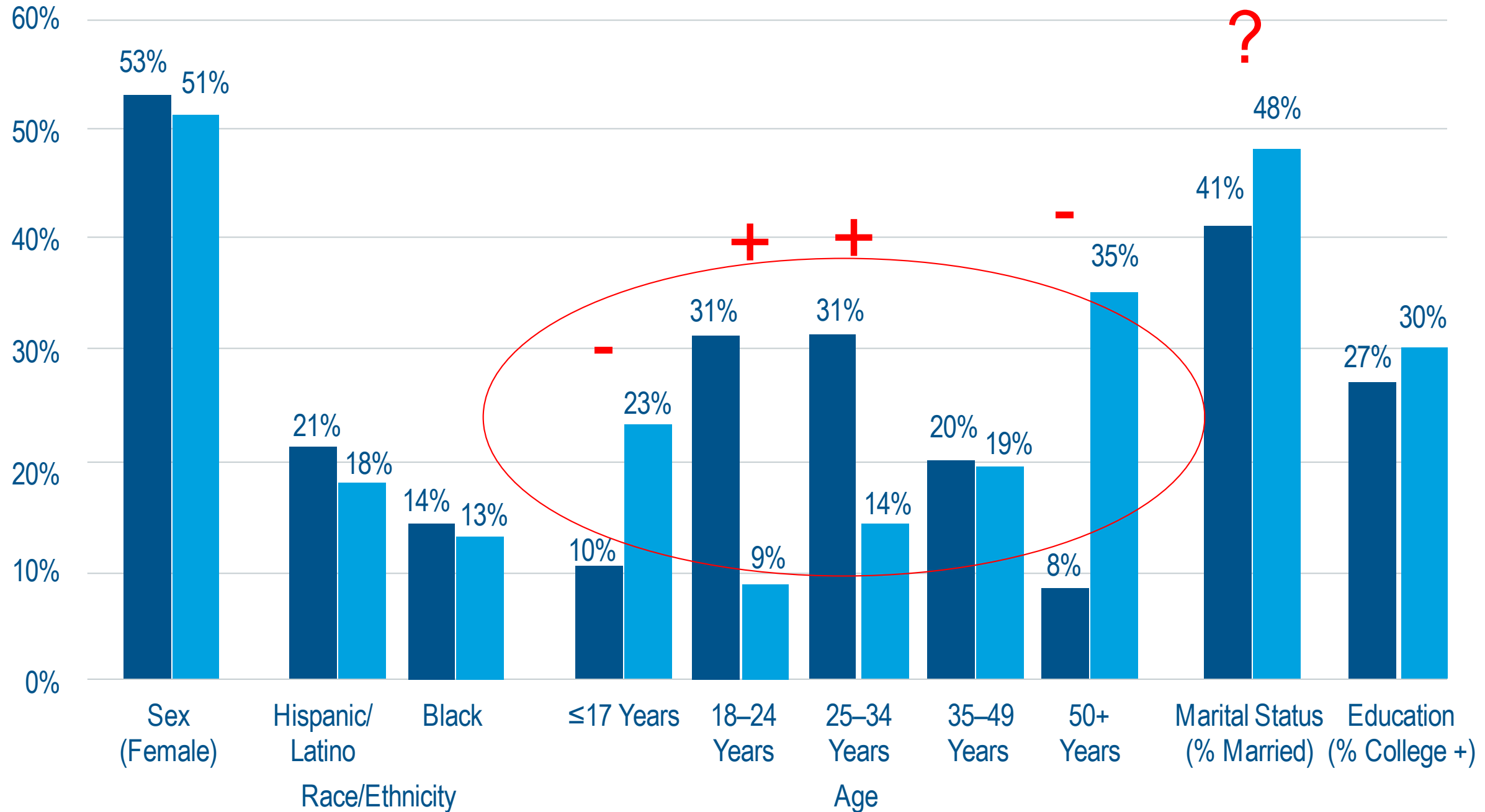
MFour Panel v. US General Population



■ MFour ■ US



MFour Panel v. US General Population





Our Study





Questionnaire

Mode

- Smartphone-based app

Topics

- BRFSS and other health-related questions (for benchmarking)
 - Alcohol use
 - Smoking
 - Sugar-sweetened beverage consumption

Nontraditional Survey Tasks

- Image capture of in-store tobacco, alcohol, or sugar-sweetened beverage display (for respondents completing the survey while still in store)

Sampling and Contact Specifications

- **Geofenced grocery, liquor, and convenience stores nation-wide**
- **Invited when cross geofence**
 - Cash register “cha-ching” and visual notification
- **Reminders at 1, 24, and 36 hours**



Analysis Plan

Sample Size

- **Planning for 1,500 completes**

Benchmarking

- **BRFSS (CATI/RDD)**
- **Similar health behavior data**
 - Web and mail
 - Nonprobability web panels

Future Research

Test using probability sample

Utilize time-lapse geo-location tracking of panel members

- Geo-Tracking all panel members who grant permission
 - Targeting respondents who:
 - Visit fast food restaurants at least x times/week
 - Visit hospital or health care provider weekly

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