



The Journey of a Community Health Survey - Improving Coverage and Response Rate





Who We Are

Helping local Communities to better understand their population

CHESS is a joint venture between ReconMR and Marketing Systems Group with a vision to create solutions for local community-based research.



Multimodal Data Collection, Strategic Insights & Advanced Analytics

With over 30 years of proven expertise, we deliver exceptional research outcomes through cutting-edge methodologies and innovative technologies. Our robust **data collection** capabilities and **powerful analytics** consistently generate **reliable, highly representative insights**—making us the trusted partner for organizations seeking clarity, precision, and impact.



Empowering Research Through Proven Sampling & Technology Solutions

With over 35 years of industry leadership, Marketing Systems Group is the trusted partner for researchers seeking to **Identify, Connect, and Engage** with precision. As a premier provider in public opinion and health surveillance research, our innovations—such as **Advanced Cell Frame (ACF)** and **Address-Based Sampling (ABS)**—set the standard for sampling excellence and technological advancement.



Introduction



Dr. Luke Thelen

Professor X – The Big Picture / Data Science

Dr. Thelen has over 30 years of experience in research, both within the fields of marketing and psychology. He serves as a consultant to both his co-workers and clients on issues related to statistics, data analysis, data management, and research methods. His expertise includes conjoint, MaxDiff, finite mixture modeling, structural equation modeling, factor analysis, regression, ANOVA, and HHAID, as well as many other inferential and descriptive statistics. He also conducts qualitative one-on-ones and in-depth interviews. Dr. Thelen earned his B.A. in Psychology from the University of California, Irvine in 1997.



Angelique Uglow, IPC

Mystique – The Magic of Modes / Methodology

Angelique Uglow, IPC is Executive Vice President at ReconMR and has more than thirty years of experience in survey research. Previously Angel was VP of Operations at Scientific Telephone Samples (STS). At STS Angel consulted with clients on a wide variety of survey sampling options. Angel has also maintained an Insights Professional Certification (IPC) – Expert Level since 2006. Ms. Uglow currently serves as President of SAPOR board of directors and was elected to serve on AAPOR's Executive Council Membership and Chapter Relations (MCR) Chair '21-'22.



Rajesh Bhai

Wolverine – Finding the right people / Sampling

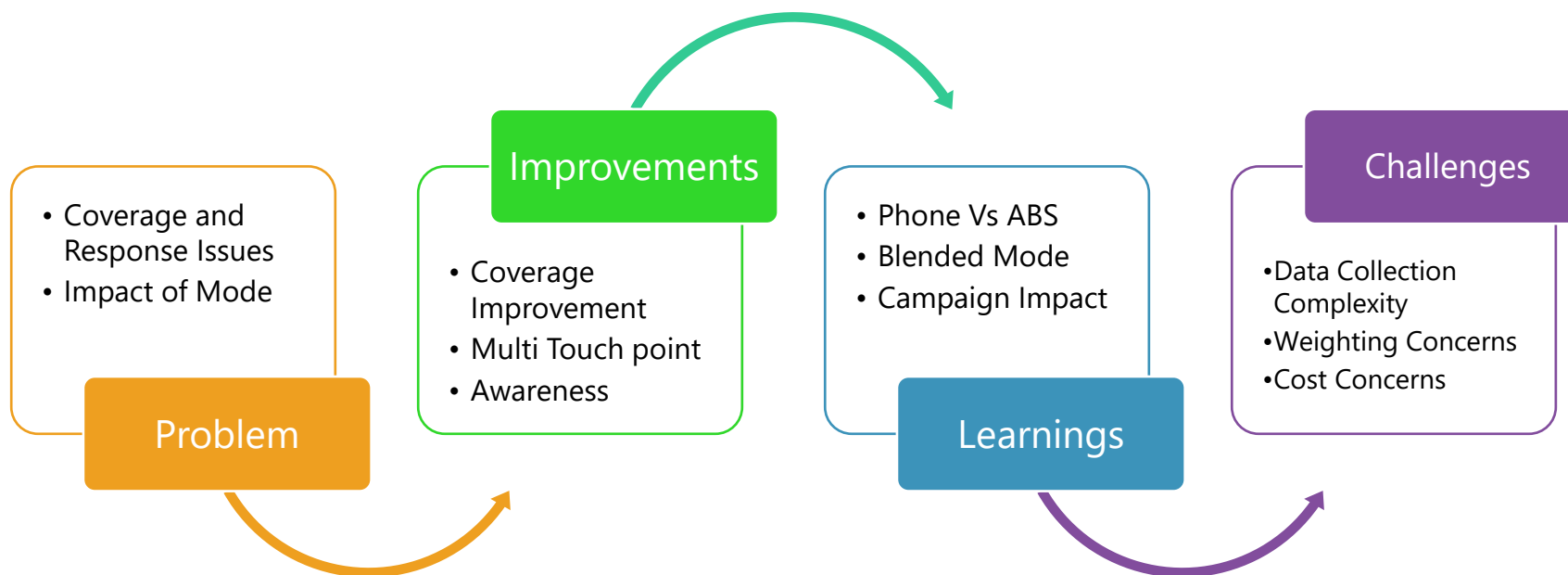
Raj Bhai's exemplifies his evolution and expertise within the organization. Commencing his journey as a Production Assistant, he has achieved remarkable advancements in his career and currently holds the esteemed position of Senior Director of Strategic Growth. His professional journey underscores his unwavering dedication and proficiency in the realms of research. In his capacity as a Director of Strategic Growth, Raj assumes a pivotal role in nurturing client relationships, guaranteeing the fulfillment of their requirements, and contributing to MSG's delivery of top-notch services.





Today's Goal

The Journey of a Community Health Survey





Coverage & Response rate

The coverage issue when using Dual-Frame RDD (Landline + Cell) for sampling in small geographies

Outward Migration

Overstating coverage due to including numbers that are outside your target area due to the following reasons:

- 1) Sample frame includes exchanges that are partly outside the geography
- 2) Portion of the population has moved outside the geography but continue to retain the phone number

Inward Migration

Understating coverage due to not including numbers that are not part of the exchanges in your target area due to the following reasons:

- 1) Sample frame excludes exchanges that are partly inside the geography
- 2) Portion of the population has moved into the geography but continue to retain the phone number from outside the target geography

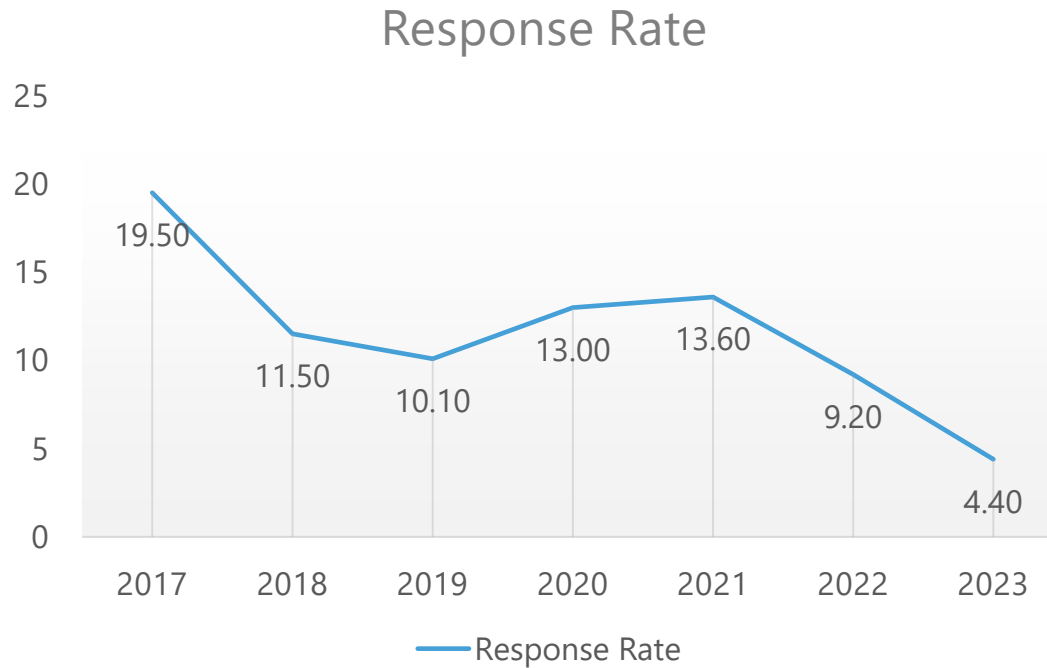
Traditional RDD Frame - Mecklenburg, NC		
	Percent	Number
RDD Frame	100.0%	2,365,000
Listed IN AREA	23.3%	550,034
Listed OOA (outward migration)	27.3%	644,604
Listed IN AREA (inward migration)	24.0%	543,140
Unlisted/Unassigned	49.5%	1,170,362

* The chart highlights the coverage issue we saw with Mecklenburg County, NC "Annual Mecklenburg Community Health Survey"



Coverage & Response rate

Increased cost due to the continued decline in response rate for phone-based surveys



* The chart highlights the response rate in Mecklenburg County, NC
"Annual Mecklenburg Community Health Survey"

Major Challenges Impacting Cost

- **Declining response rates** in general over time
- Zip code and block group **oversamples**
- Hispanic oversampling, **Spanish language inclusion**, and the ability to target sample over time
- **Call blocking and flagging**



Potential Solutions?

- 1) Control costs
- 2) Increase response rates
- 3) Increase coverage
- 4) Create a more representative sample

➤ **Multi-modal data collection?**

➤ **We did a test...**

➤ **Compared it to ACS**



Mode Impact

Are the Audience for a survey similar when recruited using different modes?

The goal of this **national test** that we conducted was to understand if there are **any differences in the completes that are obtained using different mode of data collection.**



Dual Frame RDD

N = 580

10% landline



ABS Sample Frame

N = 912

Mail invitation to web survey



Online Opt-in Panels

N = 650

Mix of 3 opt-in vendors



Social Media Recruitment

N = 587

Facebook, Instagram, TikTok

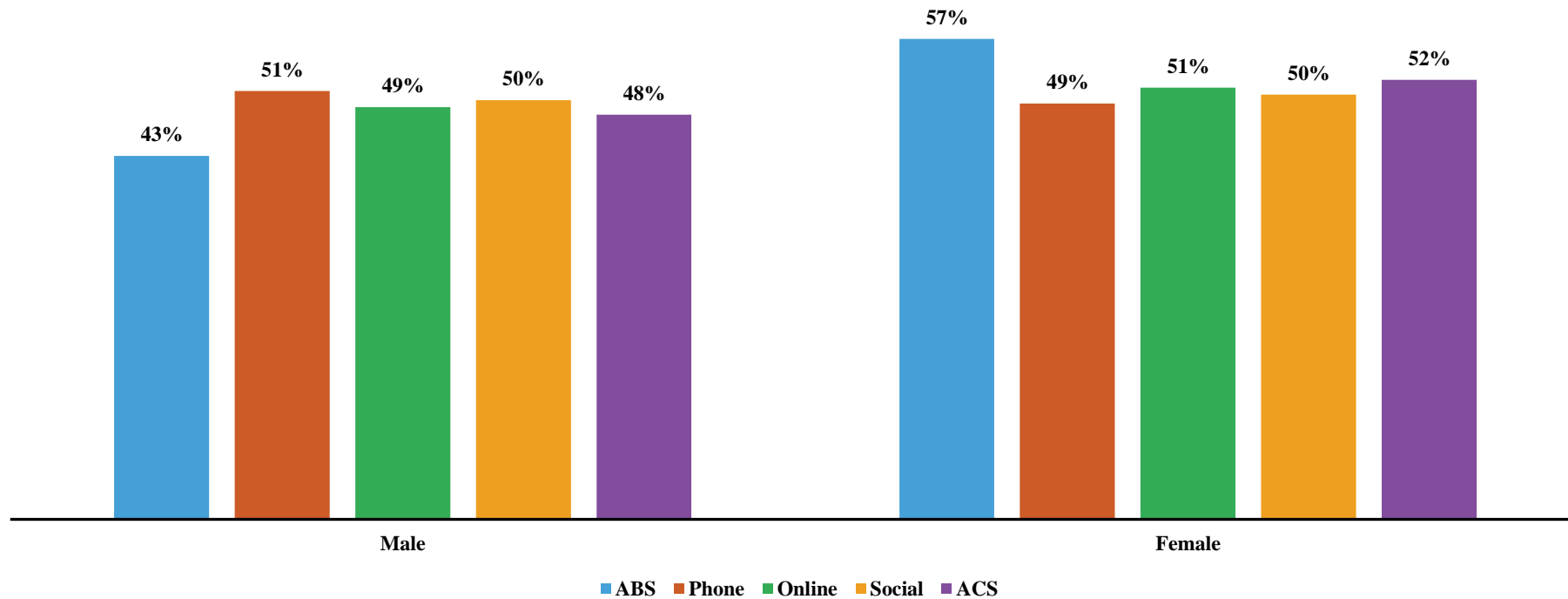
When using a non probabilistic sample source there were quotas applied on Geography, Gender, Ethnicity, Race



Mode Impact

Who is answering my surveys? - Demographical makeup of the respondents

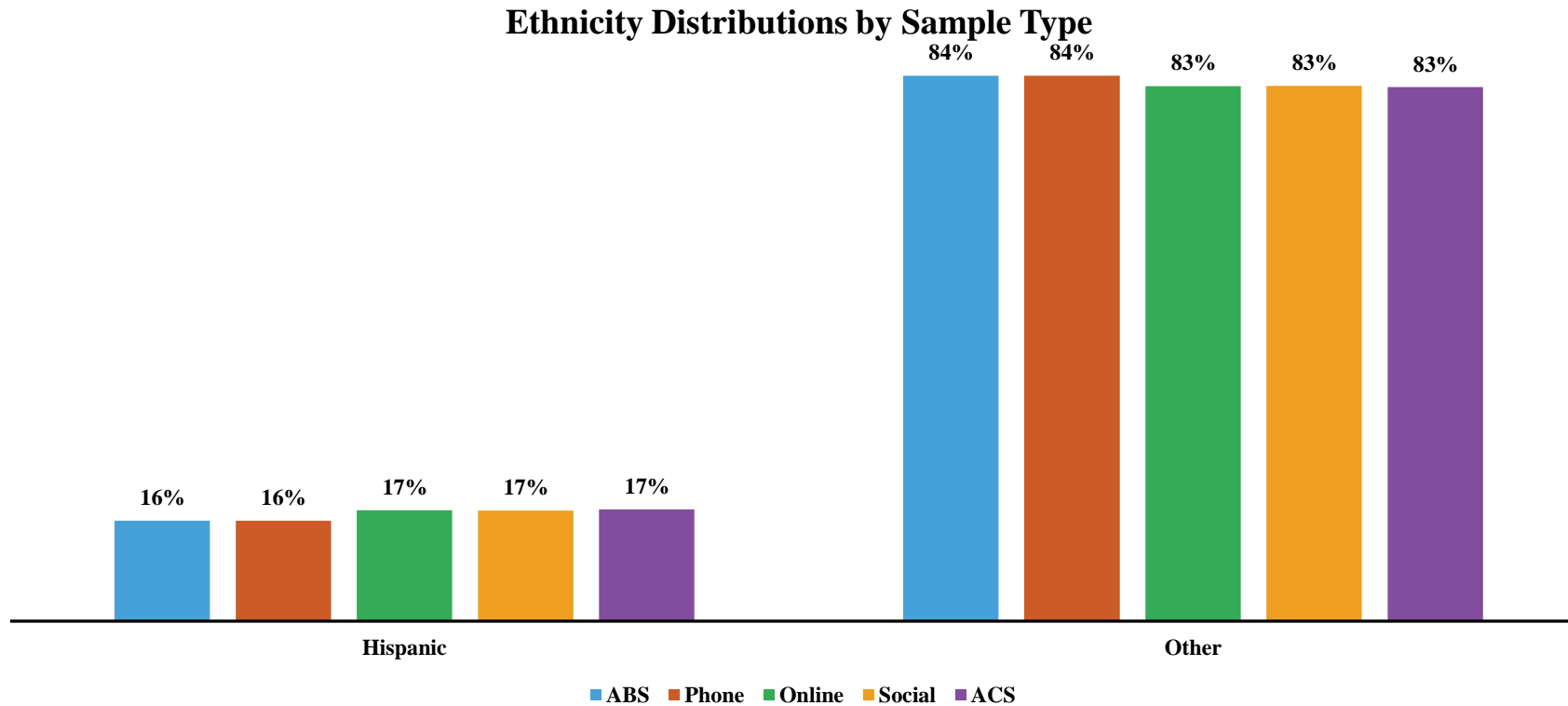
Gender Distributions by Sample Type





Mode Impact

Who is answering my surveys? - Demographical makeup of the respondents

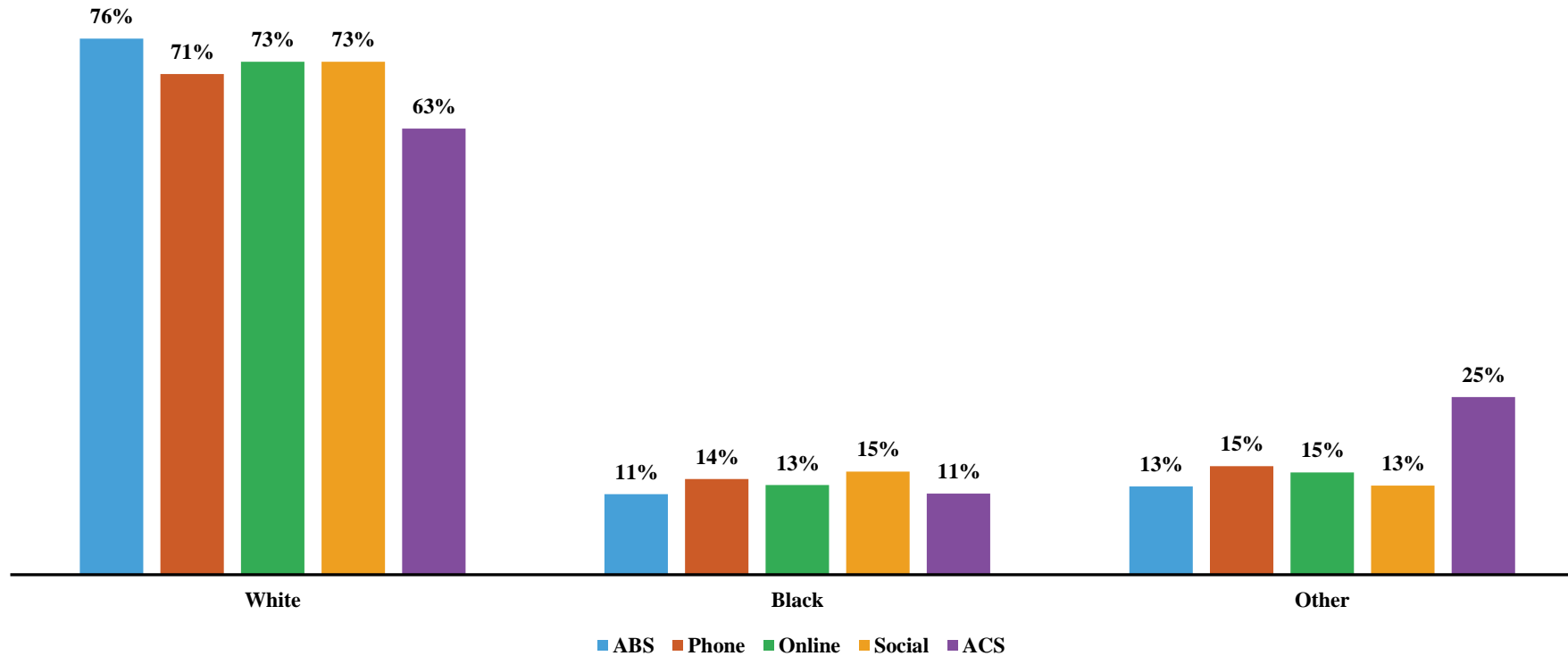




Mode Impact

Who is answering my surveys? - Demographical makeup of the respondents

Race Distributions by Sample Type

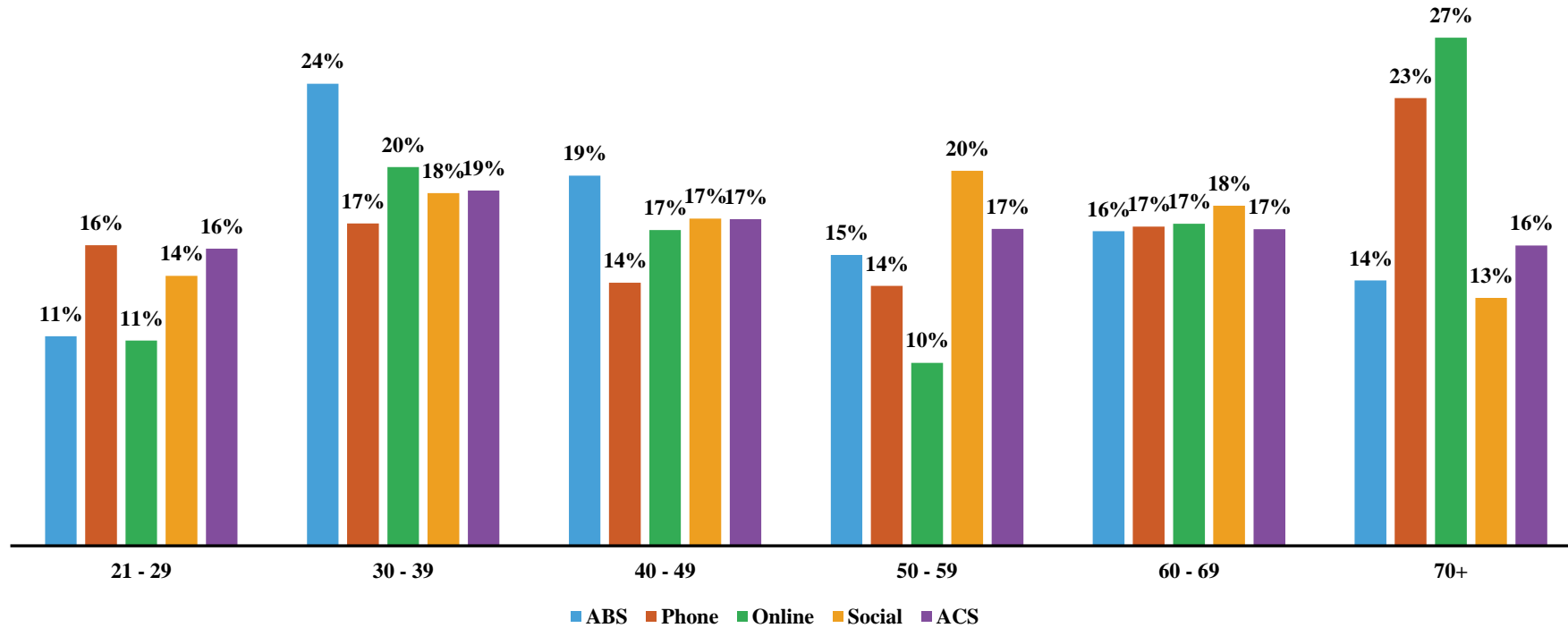




Mode Impact

Who is answering my surveys? - Demographical makeup of the respondents

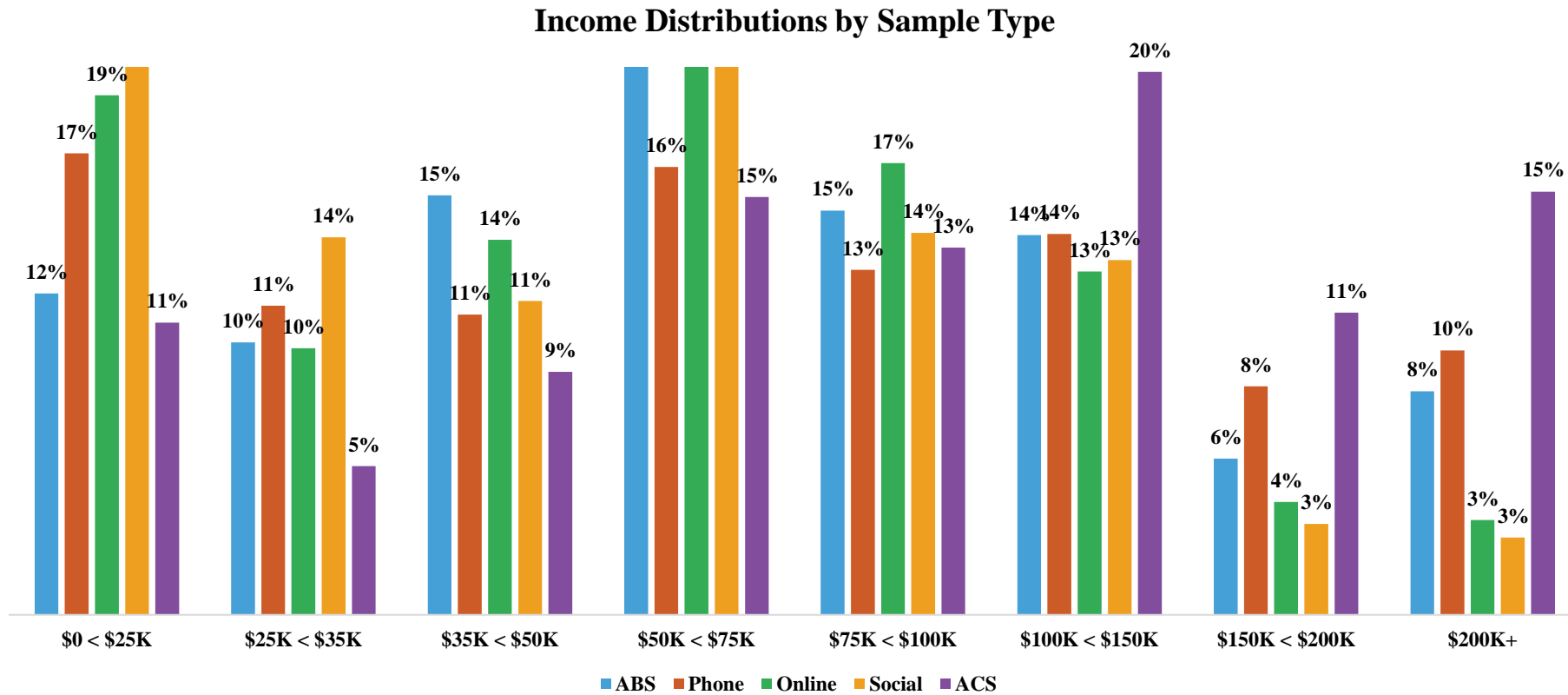
Age Distributions by Sample Type





Mode Impact

Who is answering my surveys? - Demographical makeup of the respondents

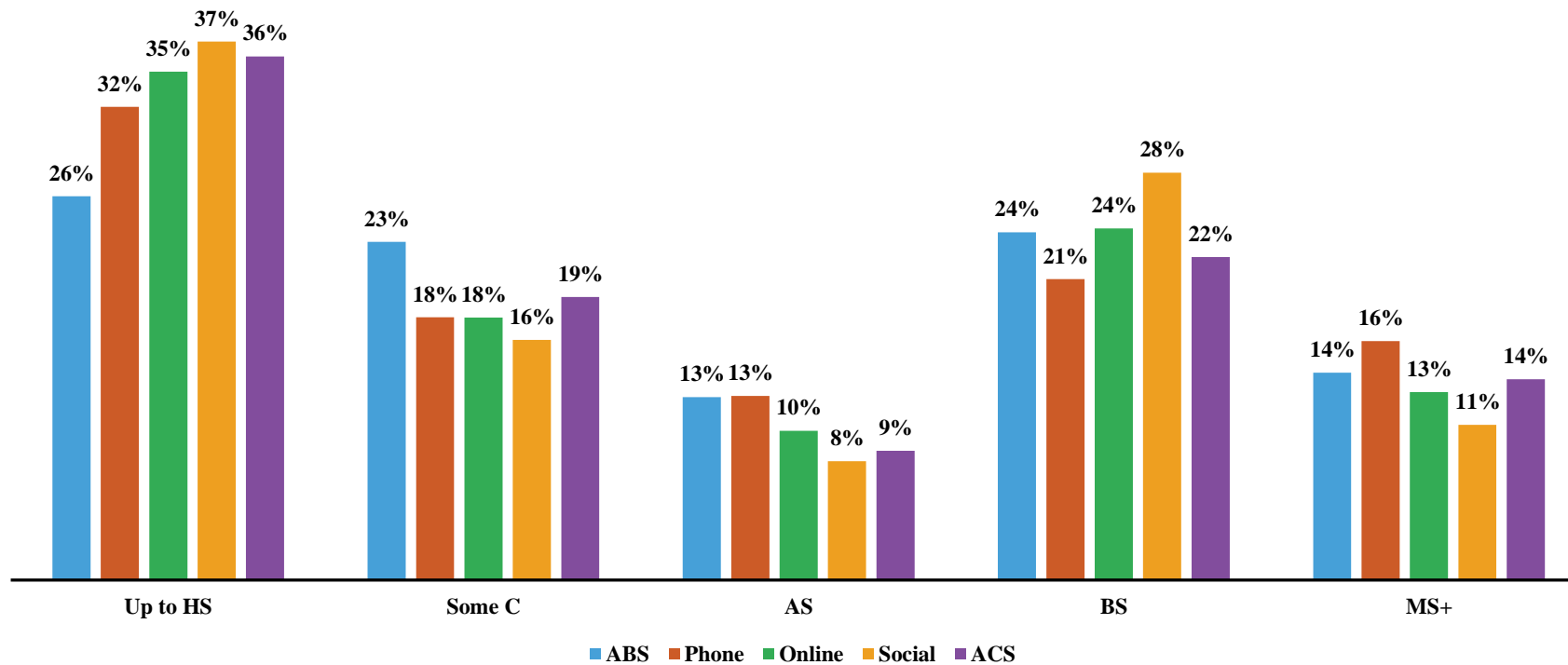




Mode Impact

Who is answering my surveys? - Demographical makeup of the respondents

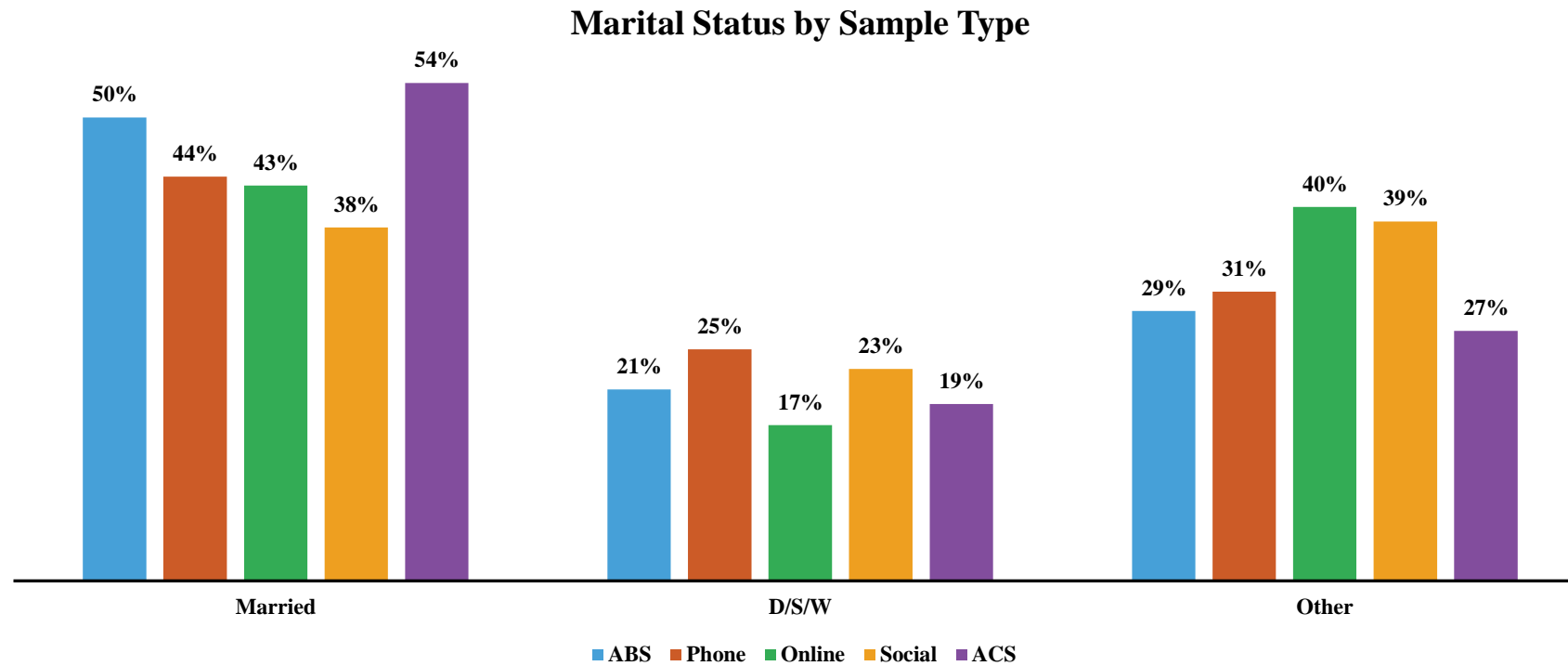
Education Distributions by Sample Type





Mode Impact

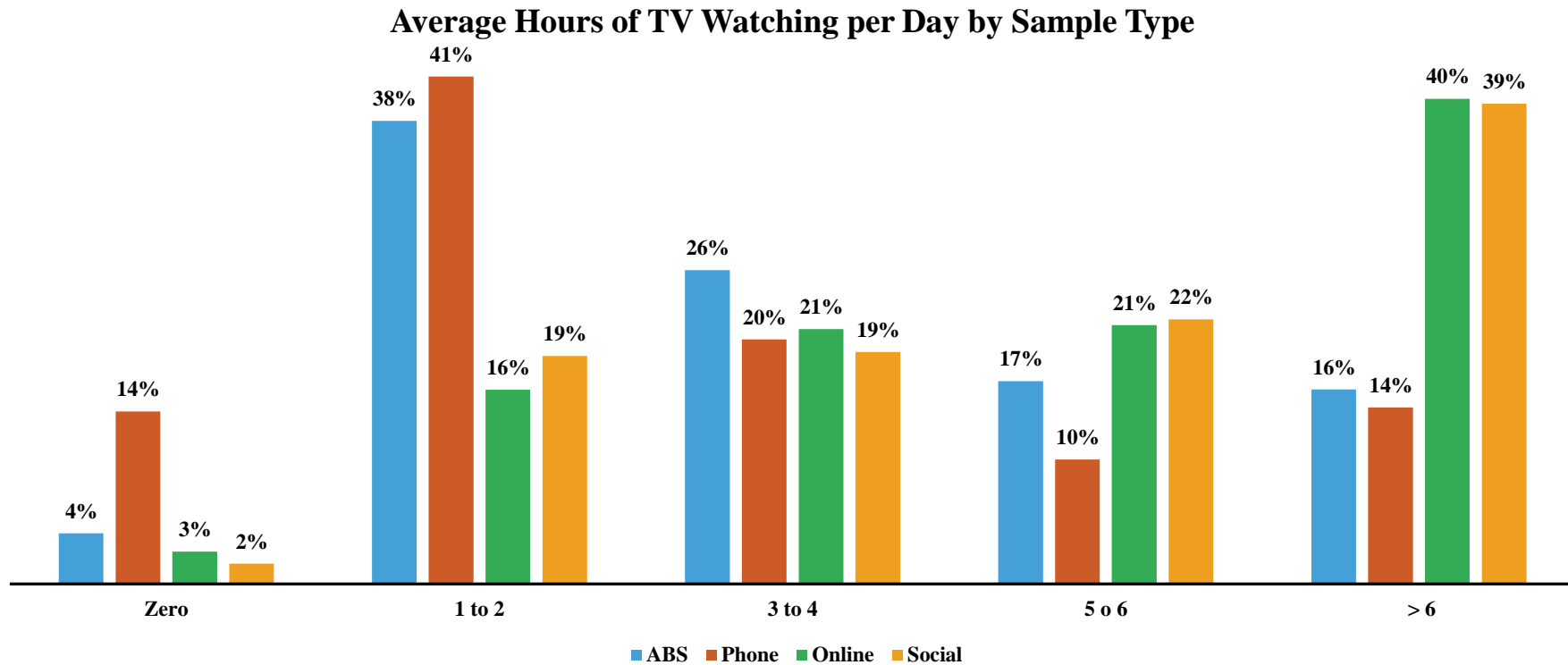
Who is answering my surveys? - Demographical makeup of the respondents





Mode Impact

Do they have a difference in behavior?

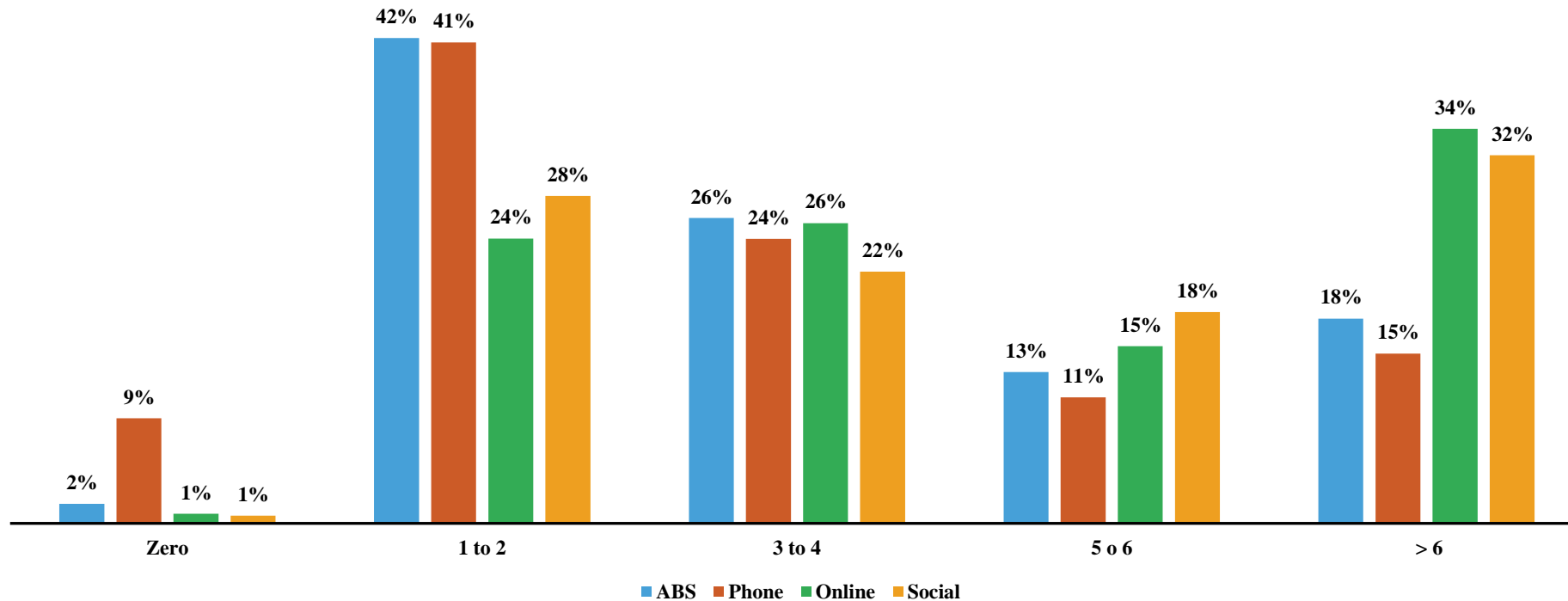




Mode Impact

Do they have a difference in behavior?

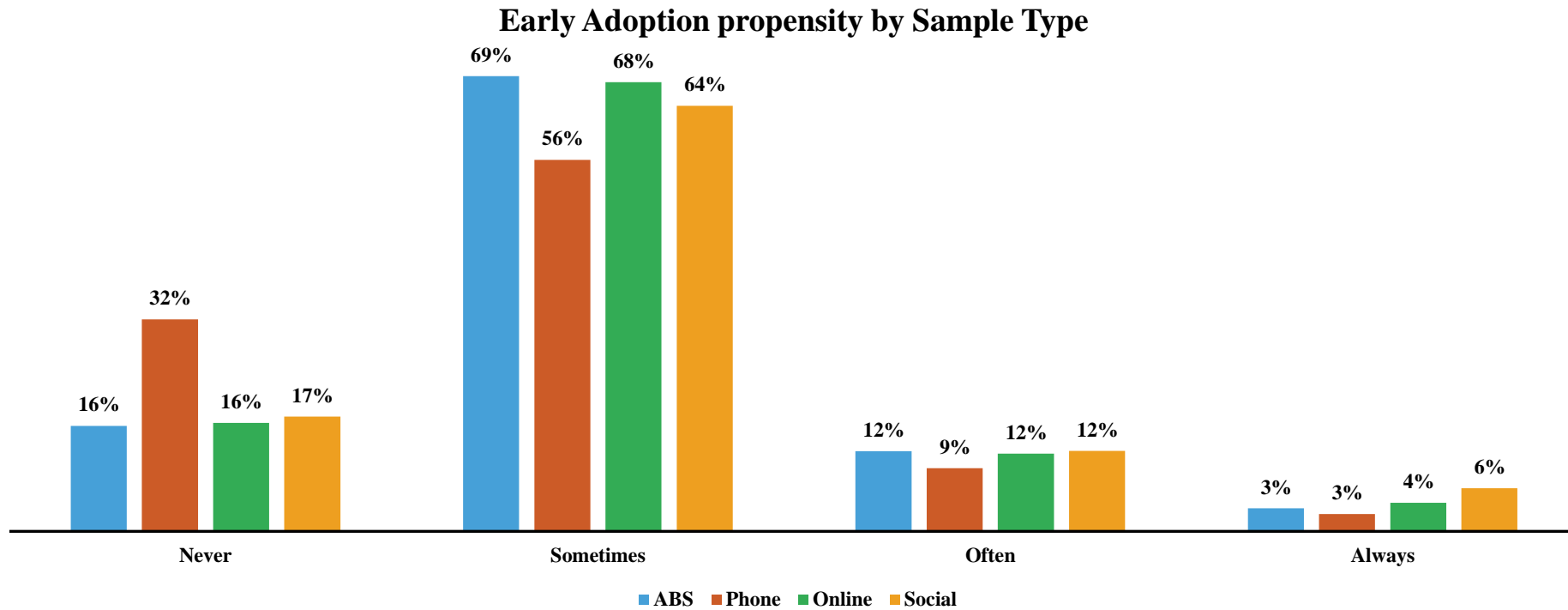
Average Hours of Web Surfing per Day by Sample Type





Mode Impact

Do they have a difference in behavior?

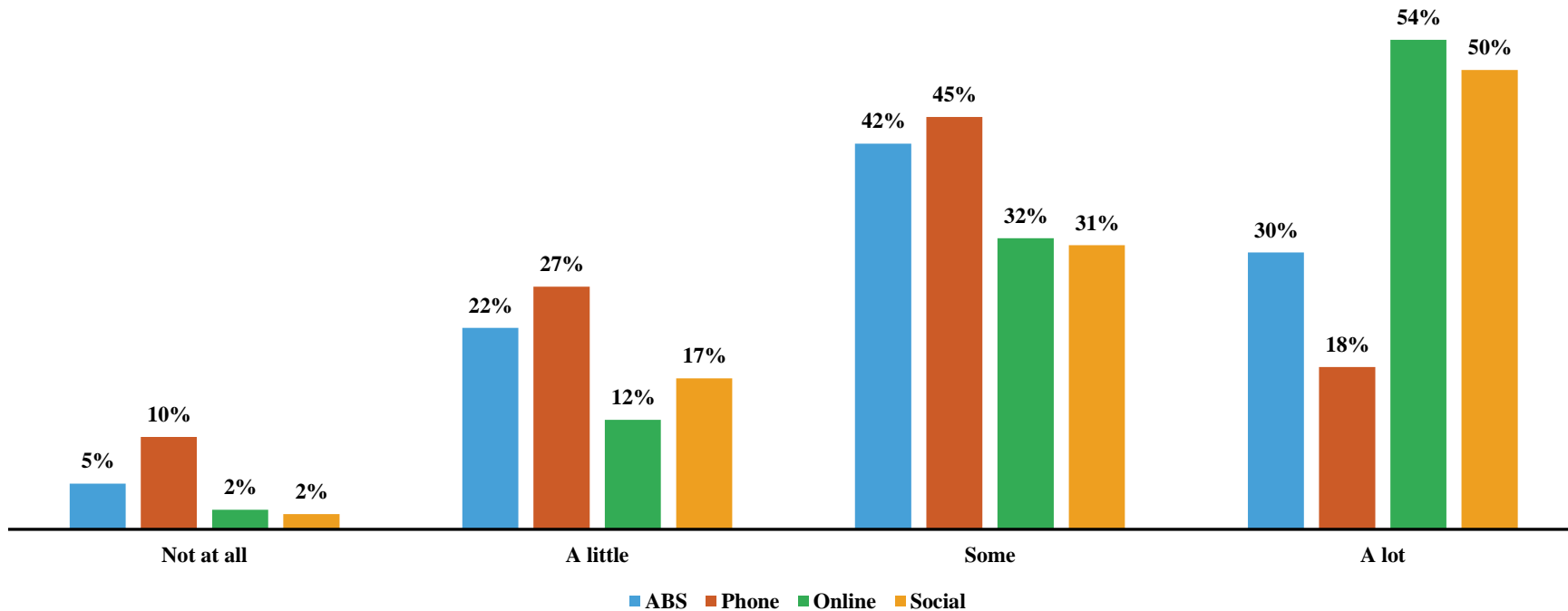




Mode Impact

Do they have a difference in attitudes?

Survey Satisfaction by Sample Type





Now...what do we need to solve?

Key challenges to solve in an iterative manner



There are clear **coverage issues with a Dual-Frame RDD** that cannot be addressed by phone alone



Although not conclusive our mode test indicates a noticeable **difference in respondents' behaviors and demographics when surveyed via different modes**





Improving Coverage

Inclusive and accurate sampling frame that can also be used in a multi modal data collection

Address Based Frame (ABS)

ABS is derived from the USPS Computerized Delivery Sequence File (CDSF)

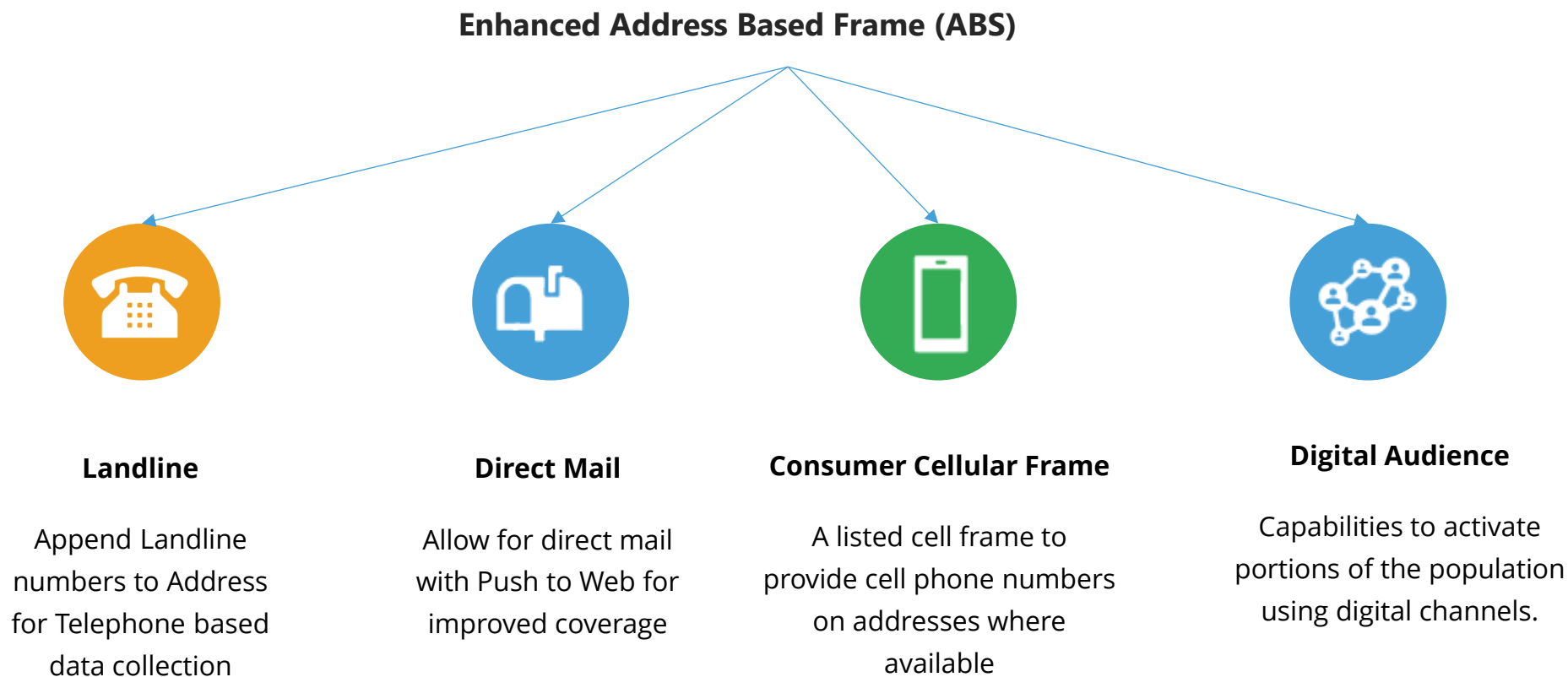
- Provides **nearly 100% coverage** of all residential addresses
- Allows for **sampling at all Census geographies**
- Appended **ancillary data allows deep stratification** based on household- and person-level characteristics
- Telephone number and email appendage allows for **multiple modes of contact**
- Available frame data **allows effective strategies for nonresponse adjustments** and weighting





Mode Activation

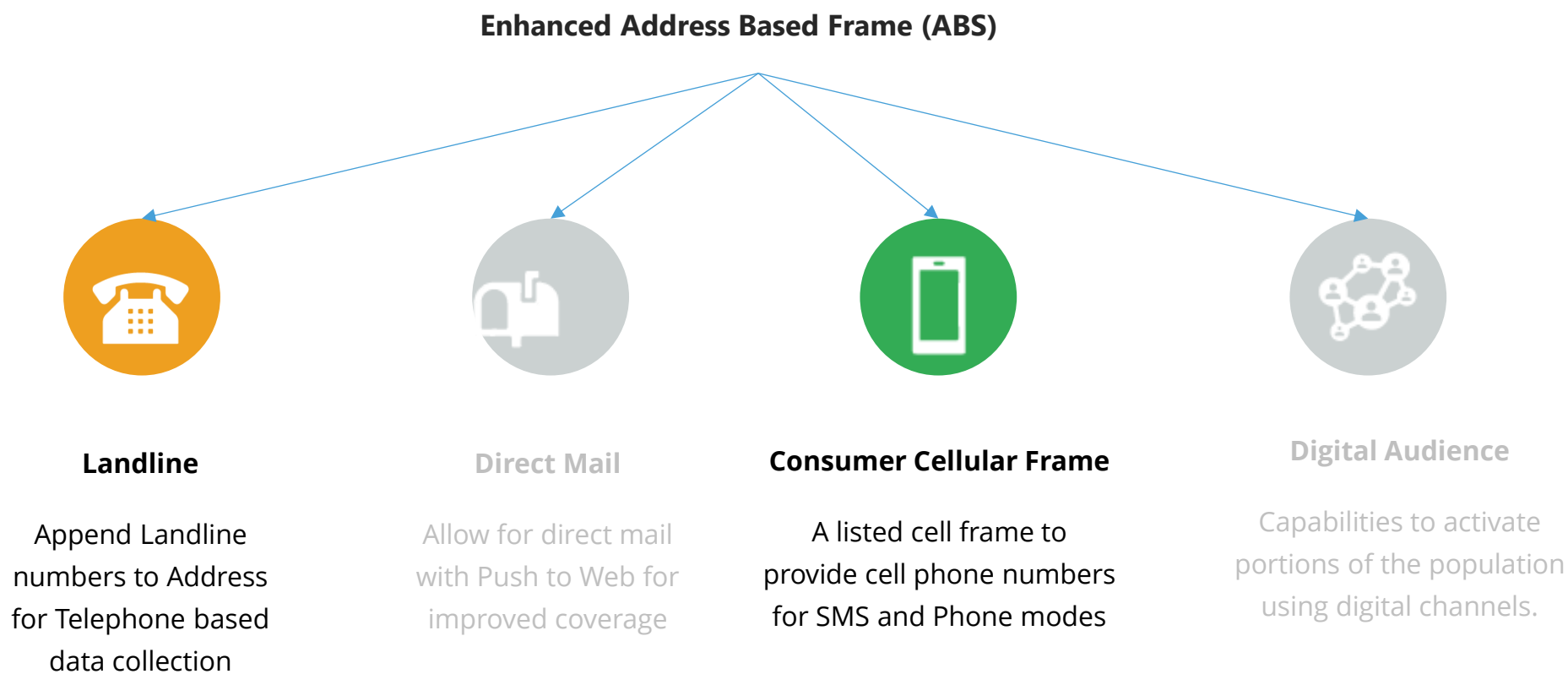
Inclusive and accurate sampling frame that can also be used in a multi modal data collection





Mode Activation

Inclusive and accurate sampling frame that can also be used in a multi modal data collection



*For the results shared we activated the **Landline and Consumer Cell** as the modes of contact



Potential Solutions?

- 1) Control costs
- 2) Increase response rates
- 3) Increase coverage
- 4) Create a more representative sample

➤ **Multimodal data collection?**



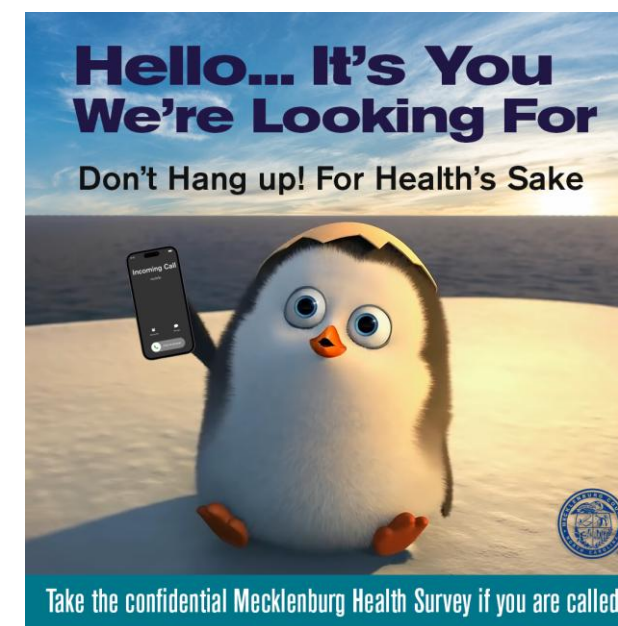
Mode Activation

Inclusive and accurate sampling frame that can also be used in a multi modal data collection

Activating Text-to-Web

100 % PEER to PEER

- ✓ Essential for **TCPA compliance** when sending unsolicited messages without prior opt-in
- ✓ Used in **conjunction with live calling** efforts
- ✓ **Contact sample in a fraction of the time** of live calling
- ✓ **Two-way communication** between the recipient and the call-center agent
- ✓ **Send reminders to finish online** before the survey closes





Creating Awareness

Improving visibility of the research to your audience

Public Awareness Program

- ✓ Consistent image for familiarity
- ✓ Static and digital billboards
- ✓ County social media platforms
- ✓ FAQ page on county website

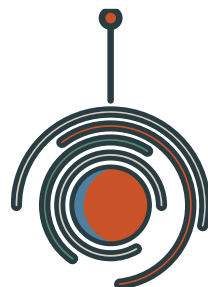




Incremental Changes

Eating the elephant one bite at a time

Reduction in LL
sample. LL
accounted for
~25% of sample



2018

2019



Moved Sample
frame from RDD
to a more
inclusive and
representative
Frame

Recruited opt-
in panel for
future studies



2020

2022



Used opt-in panel for the
first time. Introduced
text-to-web, media
campaign.

Targeted Spanish-first
outreach to sample flagged
as Spanish speaking.

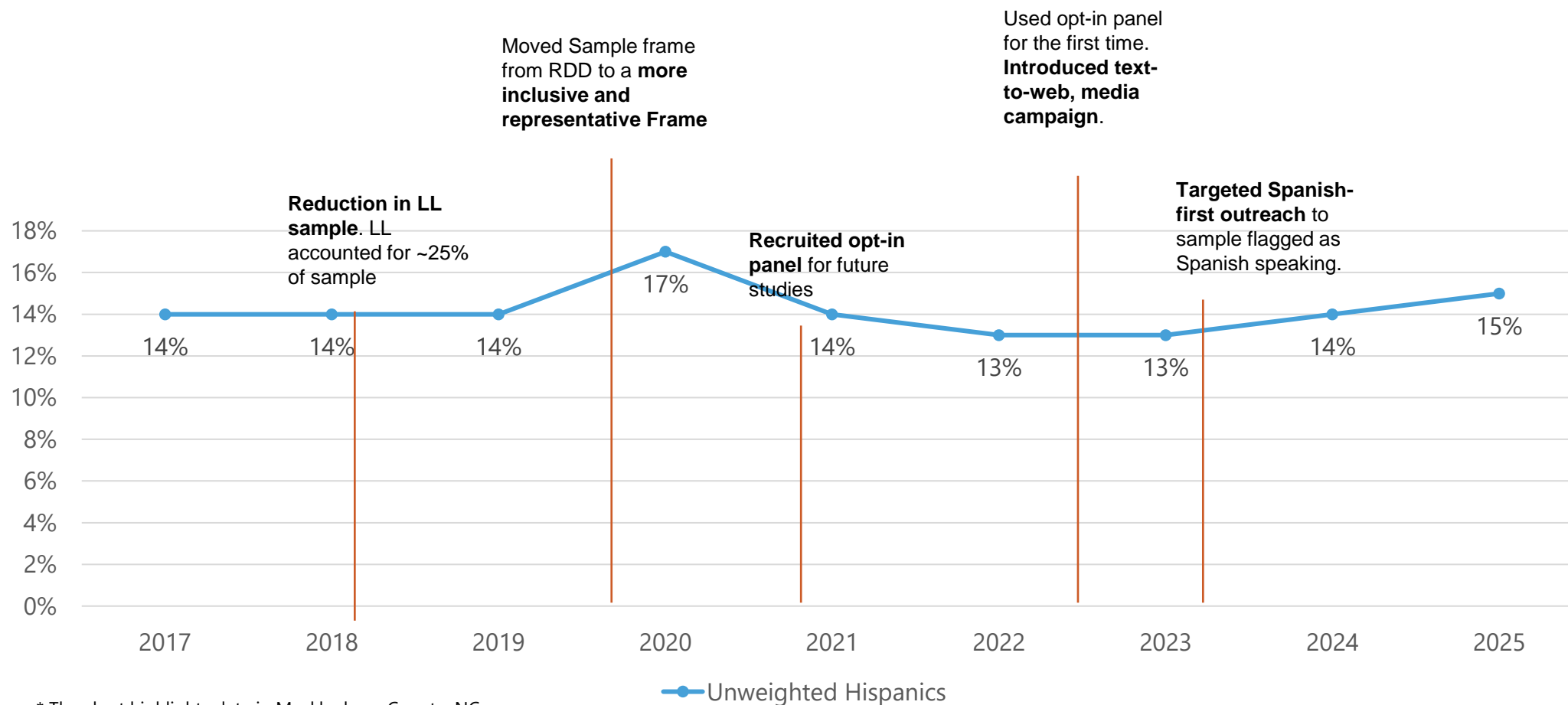


2024



The Result

How did it impact hard to reach population (Hispanics)



* The chart highlights data in Mecklenburg County, NC
"Annual Mecklenburg Community Health Survey"



Our Learnings

What we learned from the changes we made

- ✓ The change in sampling frame improved coverage by greatly reducing out of area respondents and adding the inward population

**Population coverage
improved by 51.3%**

- ✓ Multi Modal data collection impacted response rate positively leading to more data

**Number of completed
interviews improved by
34%**

- ✓ Awareness Campaigns help if budget permits

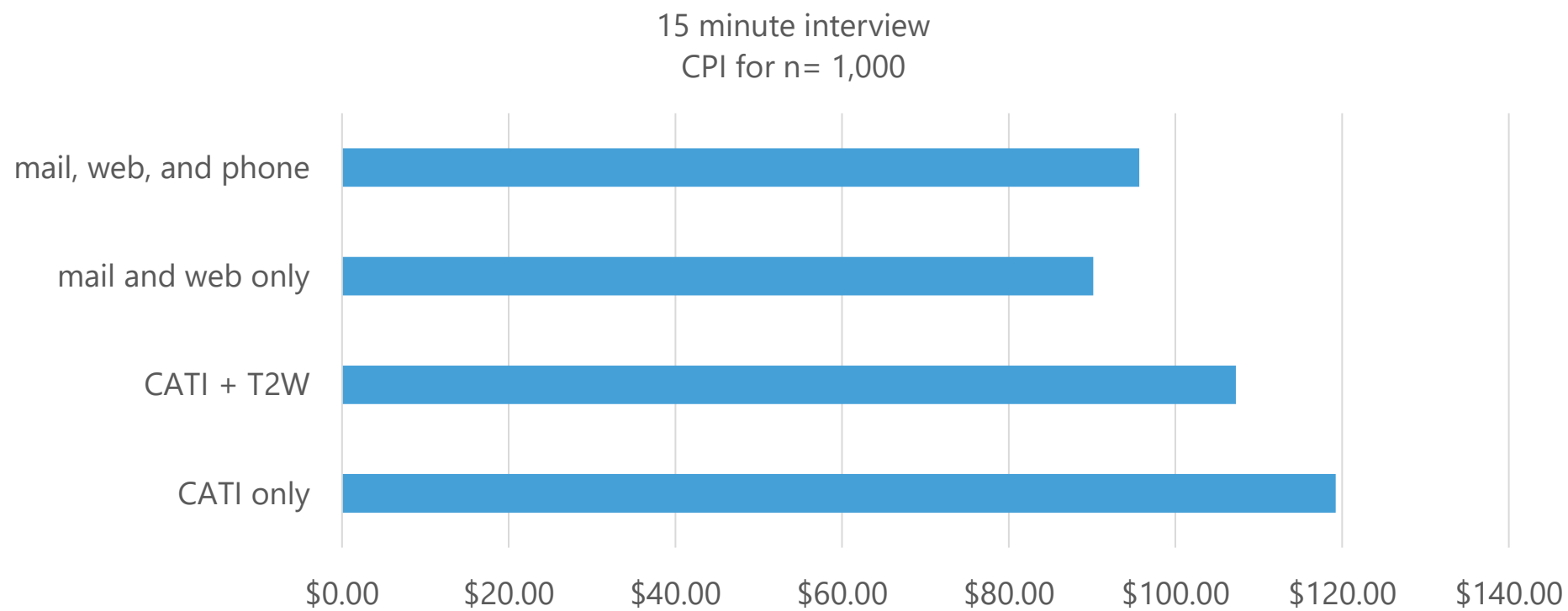
**Survey awareness
improved by 30%**





Concerns as we went through this journey

Will it cost me more because I am using more modes?





Concerns as we went through this journey

Any complexity in weighting data?

- The **frames can overlap** which **requires careful adjustment** for possible increases in inclusion probabilities and decisions about how to weight opt in sample also must be considered.
- Usually **if weights are unknown** for opt ins from their prior years sampling designs, then the weights for opt ins are constrained to 1.



Next Steps

Touchpoint Improvements

- ✓ **Direct Mail.** This will allow us to fully move to the ABS frame
- ✓ **Social Channels** – If effective this could be a great opportunity to reduce the cost of participant sourcing

Sampling Improvements

- ✓ More granular over **sampling at the zip code level** to increase participation in specific areas

Engagement Improvements

- ✓ Effective **Pre-campaign email awareness program** to educate the audience before the study recruitment begins.



What We Learned

- ✓ **Mixed mode data collection is advantageous**
- ✓ **Marketing surveys with traditional methods and on social media increases awareness**
- ✓ **Costs can be contained while increasing data quality**
- ✓ **Flexibility is key to solving survey research challenges**



What are your challenges? How can we help?





Thank You and Questions!



Dr. Luke Thelen



Angelique Uglow, IPC



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Additional Slides for Q&A



Marketing
Systems
Group