PewResearchCenter

Taking Surveys to People's Technology: Implications for Federal Statistics and Social Science Research

Discussion

Courtney Kennedy

Director, Survey Research
ckennedy@pewresearch.org

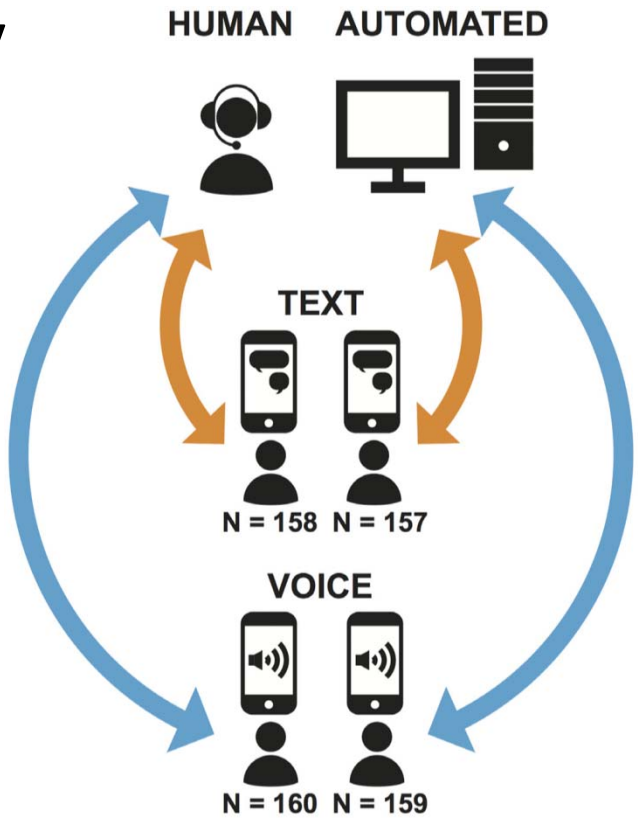
A timely study

- 91% of U.S. adults live in a HH with a cellphone (2015 NHIS)

- 82% of U.S. adult internet users text or use instant messaging (2015 CPS Supplement)

An elegant design

- Experimental design cleanly isolates the effects of medium, agent, and choice
- Focused on internal validity
- Thoughtful discussion of possible causal mechanisms affecting outcomes of interest



Schober et al. (2015)

Key conclusions

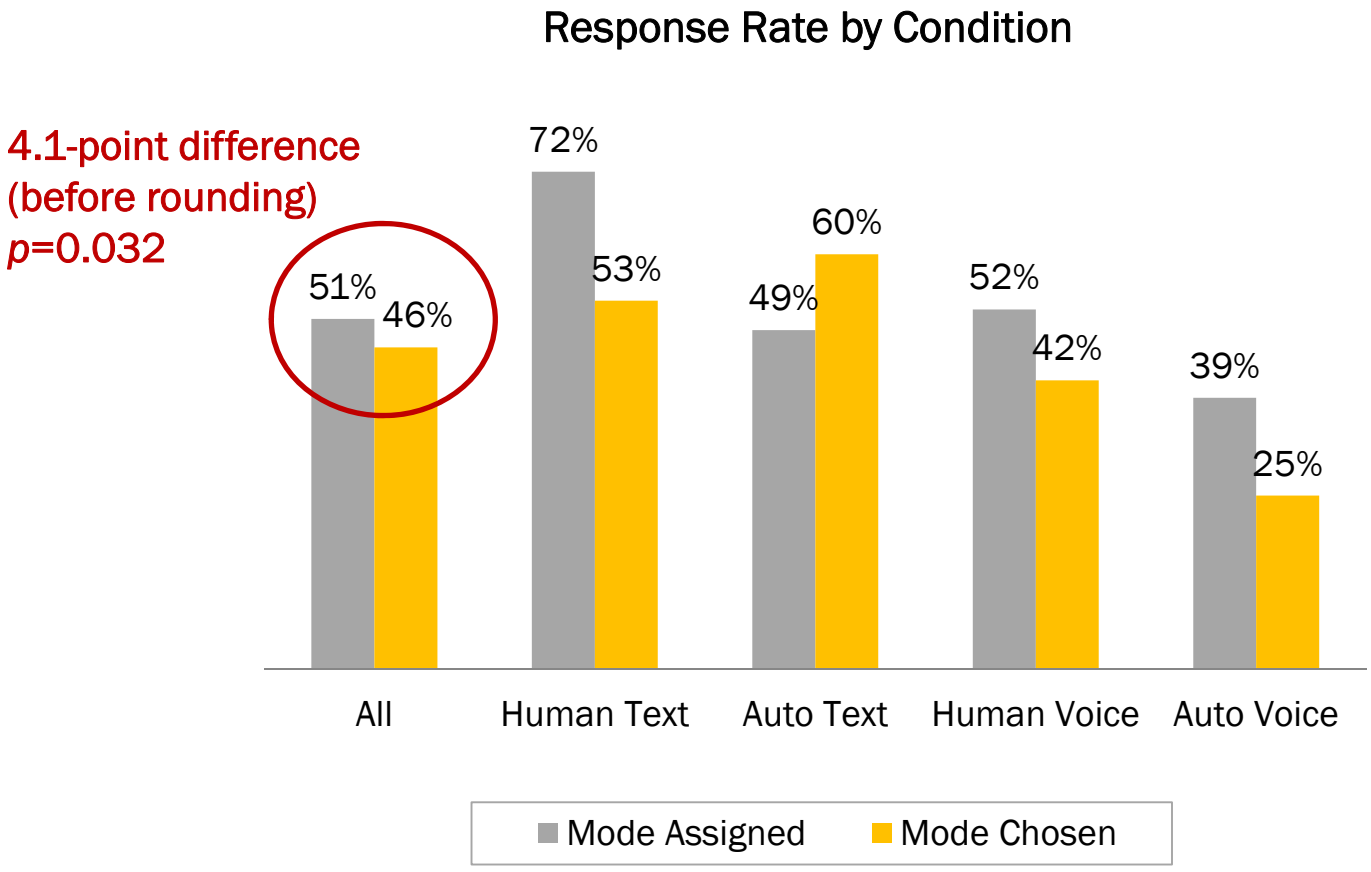
1) Texting leads to higher data quality

2) Mode choice leads to higher data quality

- Evidence for 1) is quite compelling
- Evidence for 2) is less compelling

Main Conclusion #2
Mode choice leads to higher data quality

- Offering mode choice reduced participation



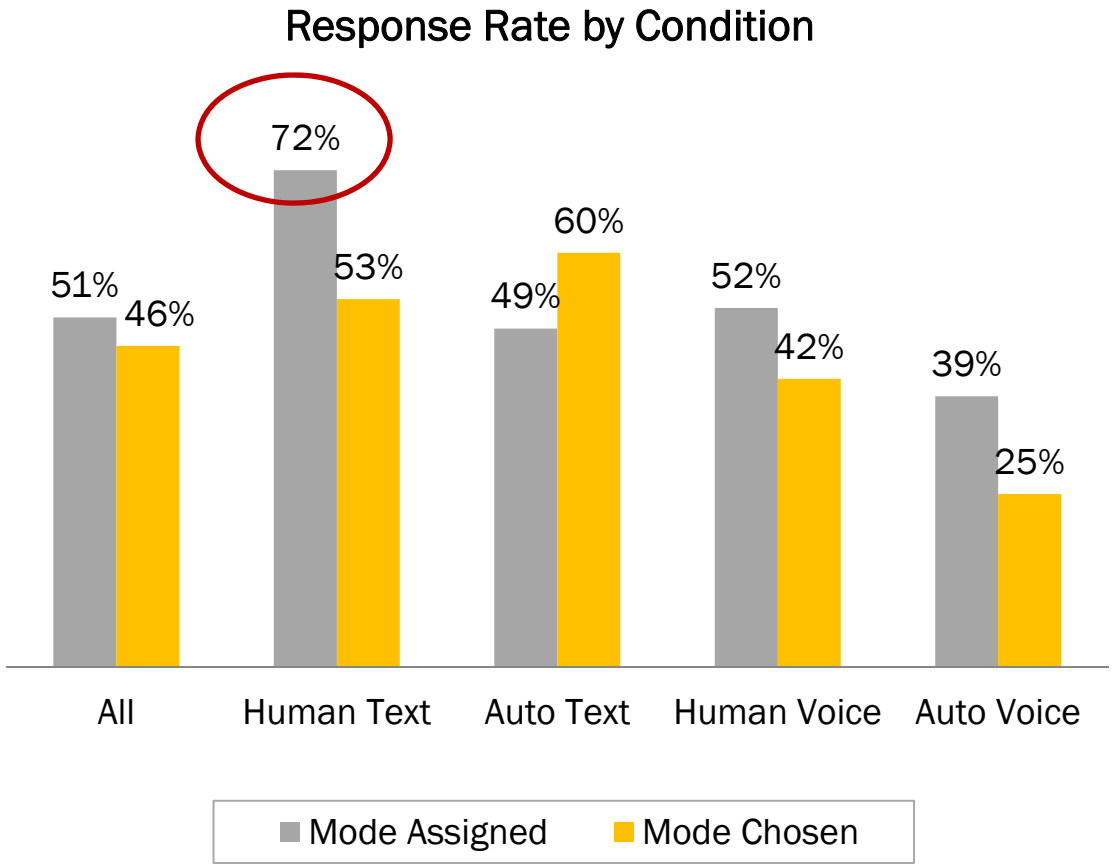
Conrad et al. (2015)

Main Conclusion #2
Mode choice leads to higher data quality

- Marginal evidence that mode choice could exacerbate over-representation of adults with higher levels of education

	Assigned	Choice	
Bachelors or more	54%	60%	p=0.056

Interesting Finding
"Human Text" excellent for participation



Conrad et al. (2015)

Interesting Finding
"Human Text" excellent for participation

- Social cost to breaking off?
- Preferred way to communicate?
- Automated systems make people feel devalued?

Why Tech Support Is (Purposely) Unbearable

By KATE MURPHY JULY 3, 2016

New York Times 7/3/2016

Generalizability

It is also unknown how our findings might generalize to a participant population, who unlike ours, are recruited in some way other than online advertisements offering relatively generous incentives to participate in a smartphone survey.

(Conrad et al. forthcoming, p. 26. emphasis added)

Where do we go from here?

1. Examine participation and response using design that avoids work-for-pay websites
   - People's behavior and expectations may differ when doing work for pay vs. complying with survey request
   - Avoid partial conditioning on cognitive skills
     - Satisficing shown to be worse among less educated
     - 41% of US adults but 7% of Rs are H.S. or less
   - Unlikely effects would disappear or reverse but the effect size may change in meaningful way

Where do we go from here?

2. Explore measurement properties of texting
   - ➢ Does autocorrect introduce error?

Where do we go from here?

2. Explore measurement properties of texting

- Challenges with wording or formatting?

Phone and Web:

- *Please rate your overall satisfaction with each of the following ways of interacting with your bank using a five-point scale, where 5 means you are extremely satisfied and 1 means you are not at all satisfied. If you have not used this service, you may tell me that as well.*
  - Your most recent in-person visit to a bank branch to talk with a teller or someone else?

SMS

- From 1 (not at all satisfied) to 5(extremely satisfied) how satisfied are you with your most recent bank visit? Use 6 for Don't know/Use

(Marlar, McGeeney, Chattopadhyay 2014)

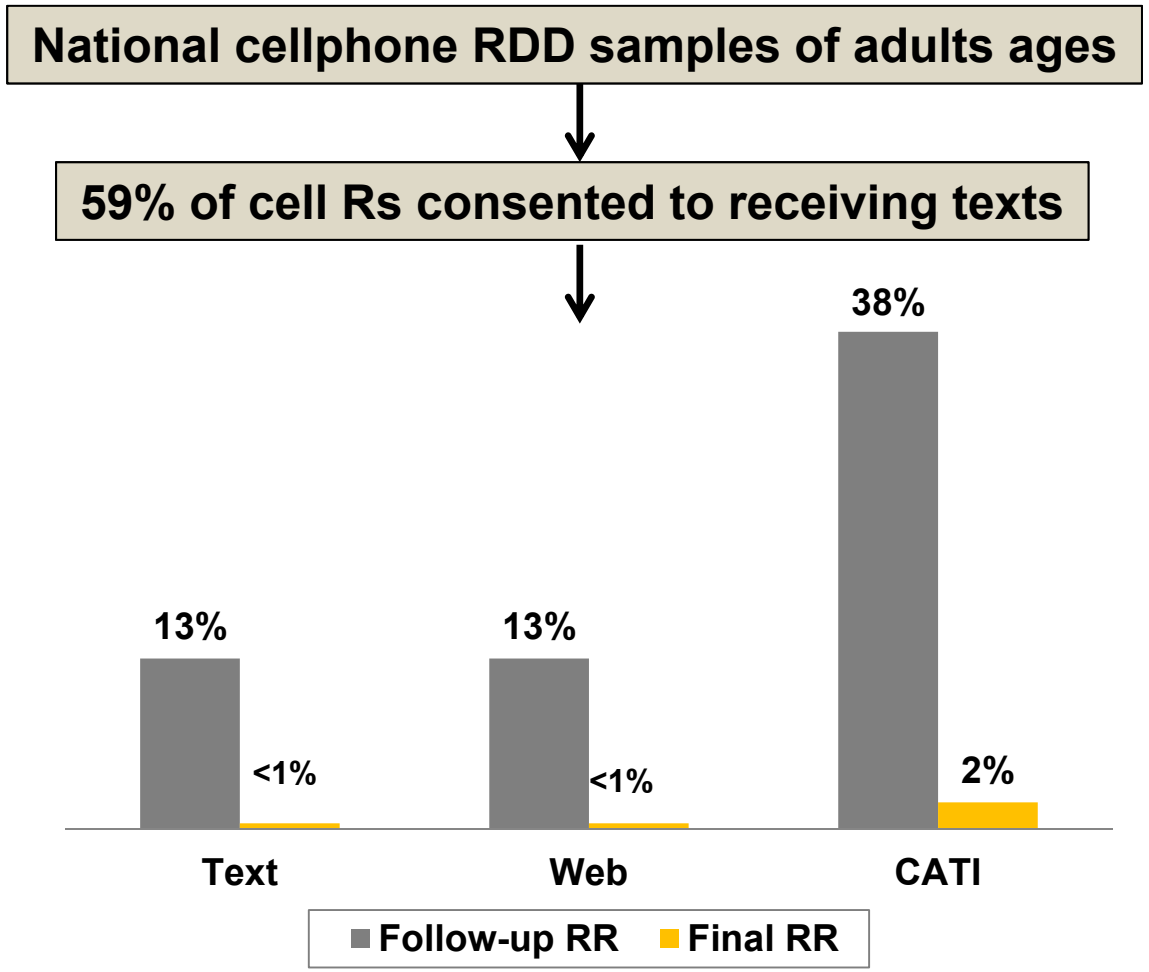
Where do we go from here?

2. Explore measurement properties of texting
   - Will actual respondents put up with more than 32 questions?

Where do we go from here?

3. Research comparing text to Web surveys
4. Assess trade-offs factoring in consent
   - Does the increased risk of nonresponse bias swamp the reduction in measurements error?

Gallup Web vs Text vs CATI (Marlar, McGeeney, Chattopadhyay 2014)



Note: Length was also tested. Results are for the shorter (5Q) questionnaire conditions.

Gallup Web vs Text vs CATI
(Marlar, McGeeney, Chattopadhyay 2014)

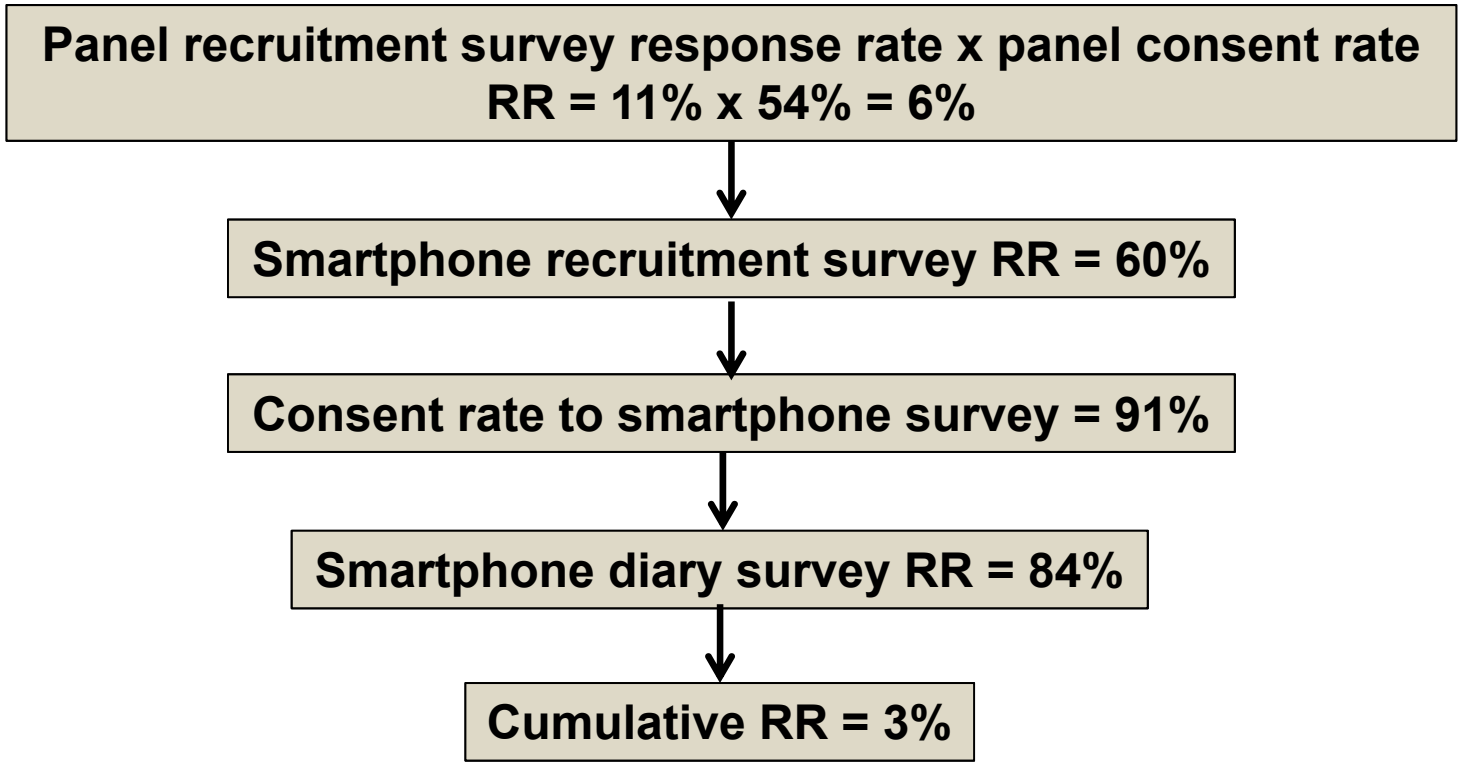
Measurement Error

- Found less straightlining in text than Web or CATI, in short QUE condition
  (43% in text, 47% in Web, 48% in CATI, p<.005)

Nonresponse Error

- SMS and Web survey Rs were more highly educated than the CATI group (*p*=.004)

Case Study:
Pew Smartphone Diary Study (McGeeney 2015)

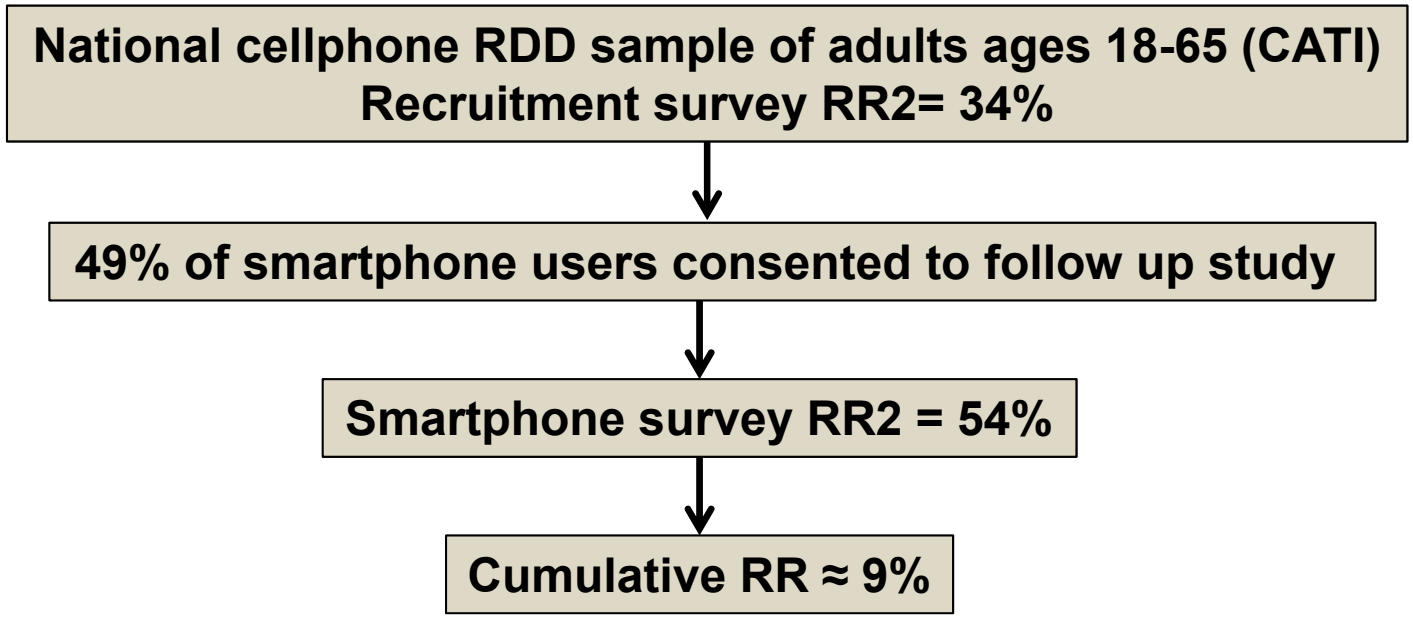


Non-consent and non-response penalty

	Cellphone users	Cellphone users consenting to receiving texts	Smartphone users completing ATP smartphone survey
College grad	41	51	61
Non-college grad	59	49	39
White	64	72	74
Black	11	10	9
Hispanic	14	10	9

(McGeeney 2015, McGeeney and Yan 2016)

Case Study:
NATS Smartphone Study (Hu et al. 2014)



- Hispanics and non-whites significantly under-represented in smartphone sample

Final Thoughts

- Fred, Michael and colleagues have done the field a great service with this work
- Exciting to think we could improve both data quality and the respondent experience!
- Mounting evidence that texting may offer good measurement properties
- Much more research needed on formatting and length trade-offs, relative to Web response

Final Thoughts

- The field (not necessarily Fred and Michael) seems interested in smartphone surveys via text or Web as standalone design. There the risk of nonresponse bias is very concerning.
- Strongest argument for text response is in context of a panel where consent comes after trust is well established or, perhaps, in high response rate survey where non-consenters can response by other means

Thank you

Courtney Kennedy

ckennedy@pewresearch.org