

Can we have a moment of your time?

Respondent mode preferences between short paper, web,
and two-way SMS surveys

Maura Spiegelman, National Center for Education Statistics
Allison Zotti, U.S. Census Bureau

American Association for Public Opinion Research (AAPOR) Annual Conference
May 11, 2023

Background

- As the popularity of SMS text messaging increases, survey researchers have used texts to send **reminders, links** to web surveys, and to **administer surveys**
- Research on two-way SMS surveys often focuses on specialized populations or circumstances, so can be difficult to generalize across surveys
- In general, research has found
 - Respondents complete SMS surveys quickly after receiving invitations (Cooke et al. 2003, Hoe and Grunwald 2015, Johnson 2016)
 - Elapsed time to complete may be longer than other modes, but not necessarily problematic to respondents (Schober et al. 2015, Brenner et al. 2022)
 - Breakoffs may be higher (Lau et al. 2019, Brenner et al. 2022) or lower (Schober et al. 2015) than other modes depending on circumstances such as population and survey length
- We focused on the performance of SMS surveys in a multimodal data collection

Principal Follow-up Survey

The National Center for Education Statistics is interested in Principal attrition and mobility. Please answer the following two questions about this school's Principal last year.

1. Which of the following best describes the current occupational status of last year's Principal?
☛ Mark (X) only one box.

☛ If this school had more than one Principal last year, think of the one who was Principal on October 1, 2020.
☛ If this school did not have a Principal last year (2020-21 school year), mark (X) here and return the form.

Still working as Principal of this school

20 Still working as Principal of this school

Still working as a Principal, but not at this school

24 Working as a Principal, but in a different public school ↗

Is the principal's new school in the same District as this school?

21 Yes
22 No
23 Don't know

25 Working as a Principal, but in a private school

Still working in a K-12 school, but not as a Principal

26 Working in this school, but not as Principal
27 Working in a different public school, but not as Principal
28 Working in a private school, but not as Principal

Still working in K-12 Education, but not in a K-12 school

29 Working in a District or Administrative Office as a Superintendent, Assistant Superintendent, or other higher-level Administrator
30 Working in a District or Administrative Office, in a position other than that of Superintendent, Assistant Superintendent, or other higher-level Administrator
31 Working at a job associated with K-12 education, but not directly associated with any schools or school system

Working at a job outside of K-12 Education

32 Working at a job outside of K-12 education

Other

33 Retired – not working outside the home
34 On leave (e.g., maternity/paternity, military, disability, sabbatical)
35 Deceased
36 Other - please specify →

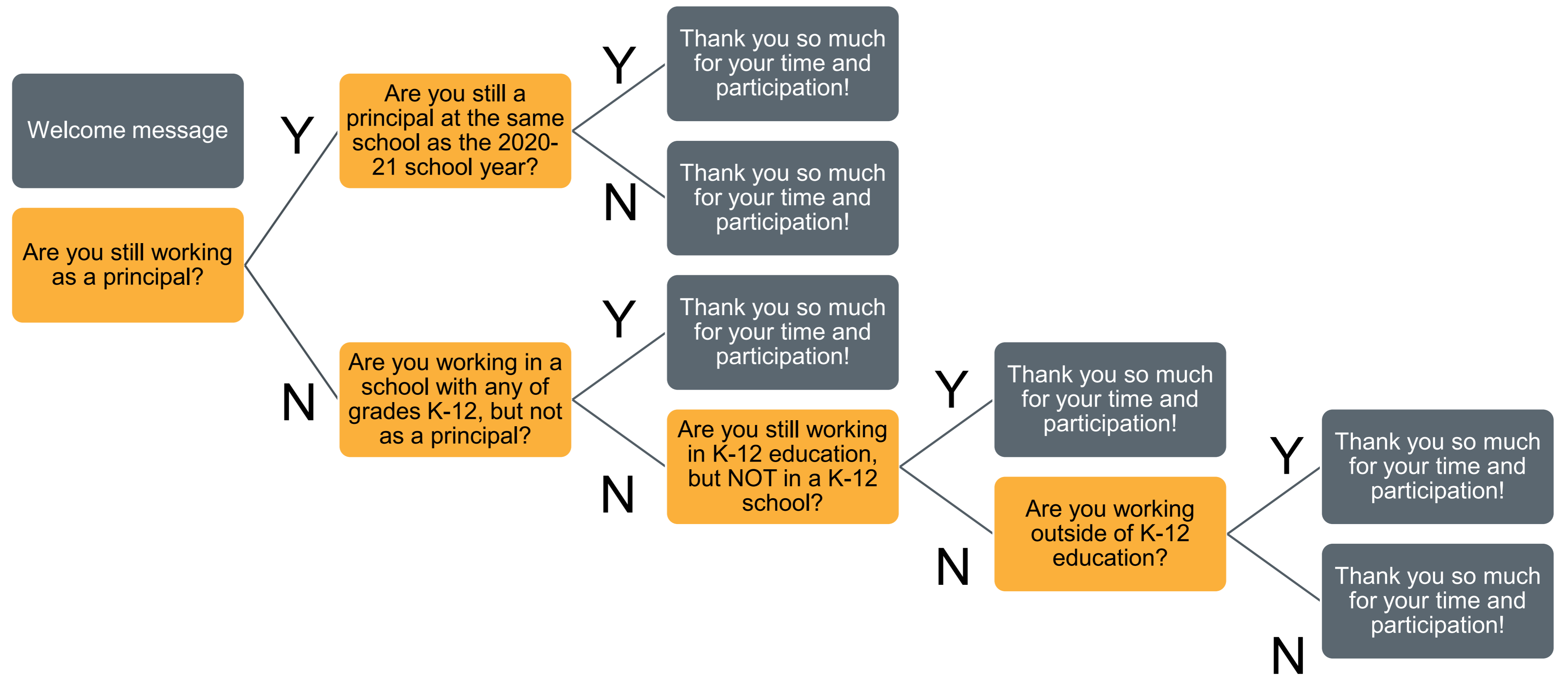
- (Very!) short survey on current job
- Administered to principals who completed the National Teacher and Principal Survey (NTPS) in the previous school year
- Respondents asked to provide home mailing address, e-mail address, and cellphone number in the baseline survey, as well as affirmative consent to receive follow-up communication by text message
 - About half of the principals provided a cellphone number, and about half of those principals consented to receive text messages
 - Consenters and non-consenters differed demographically. For example, non-White or Hispanic principals were MORE likely to provide cellphone numbers and MORE likely to consent to receive text messages (Spiegelman and Zotti 2021)

Experimental design

- Principals who consented to receive texts were randomly assigned to:
 - **Paper only:** Mailed paper questionnaire, e-mailed reminder to complete paper questionnaire
 - **Paper + Web:** E-mailed direct link to complete web survey, mailed paper questionnaire
 - **Paper + SMS:** Texted survey questions for direct response by text, mailed paper questionnaire, e-mailed reminder to complete paper questionnaire
- About 200 principals per treatment group
- Telephone follow-up for nonresponding principals to complete survey over the phone

Hello, you are receiving this message since you completed the National Teacher and Principal Survey last school year for the U.S. Department of Education and the Census Bureau. We need your help. You may receive up to 2 contacts via text in the next 2 months. Visit [nces.ed.gov/surveys/ntps](https://nces.ed.gov/surveys/ntp) for more information. Reply STOP to cancel. Message rates may apply.

Are you still working as a principal? Reply "1" for YES or "2" for NO. Call 1-866-325-4957 for help or learn more about this survey at nces.ed.gov/surveys/ntps.



Data collection

	Paper Only	Paper + Web	Paper + SMS
3/16/22		Web survey invite	SMS survey invite
3/17/22	Paper survey	Paper survey	Paper survey
3/22/22	E-mail reminder		E-mail reminder
3/29/22		Web survey invite	SMS survey invite
3/31/22	Paper survey	Paper survey	Paper survey
4/5/22	E-mail reminder		E-mail reminder
4/20/22 to 5/17/22	Telephone follow-up		

Research questions

For principals who consent to receive text messages:

- Will survey mode augmentation increase response rates?
 - Does this differ for web surveys and SMS surveys?
- Will survey mode augmentation decrease time-to-respond?
 - Does this differ for web surveys and SMS surveys?
- How do respondents interact with text messages?

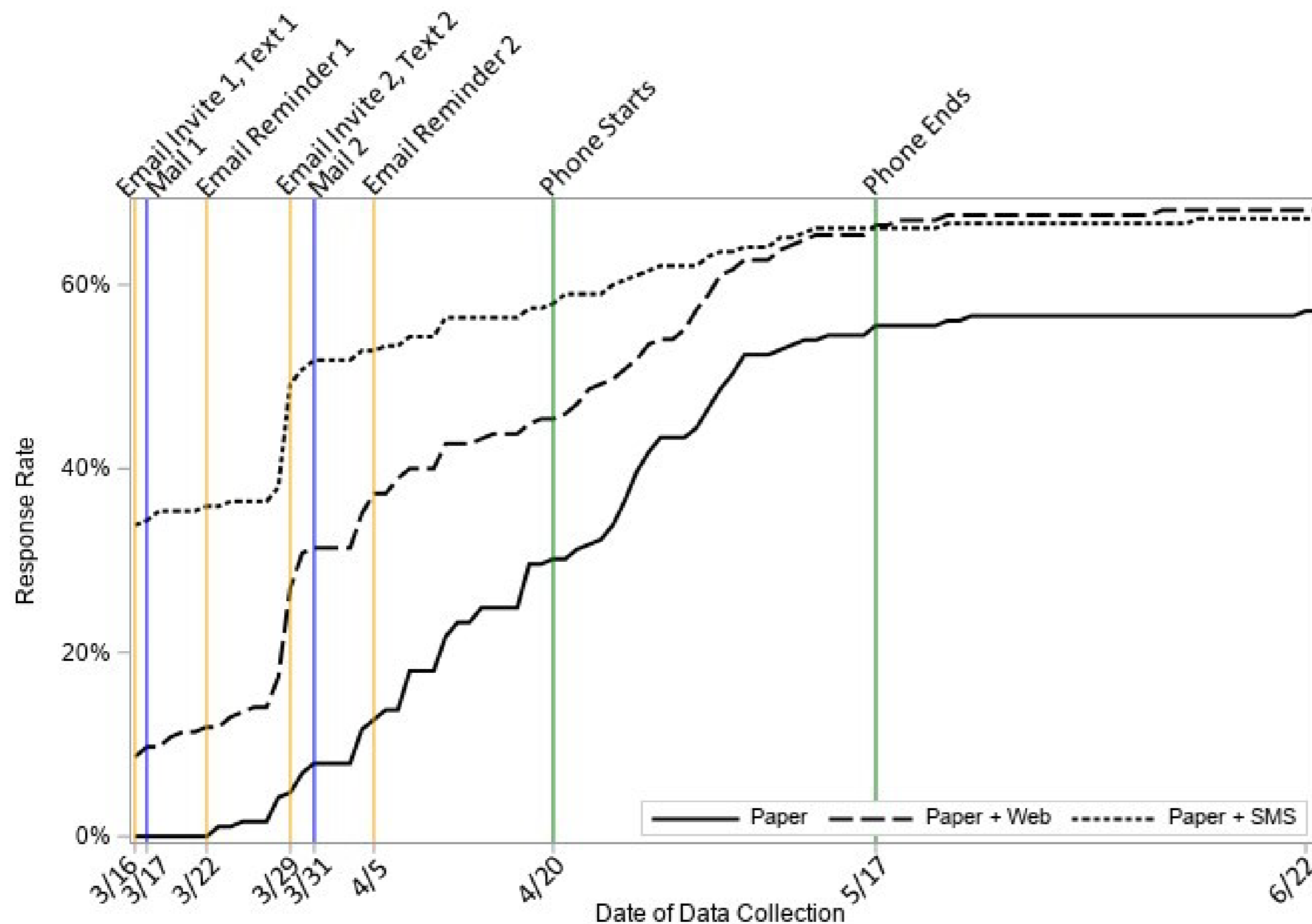
Response rates by experimental group and mode

	Paper Only	Paper + Web	Paper + SMS
Web	n/a	25.95	n/a
SMS	n/a	n/a	47.18
Paper	38.10	22.70*	14.87*
All self-administered	38.10	48.65*	62.05*^
Phone	19.05	20.00	5.13*^
Total	57.14	68.65*	67.18*

*Significantly different from Paper Only with $p < 0.05$

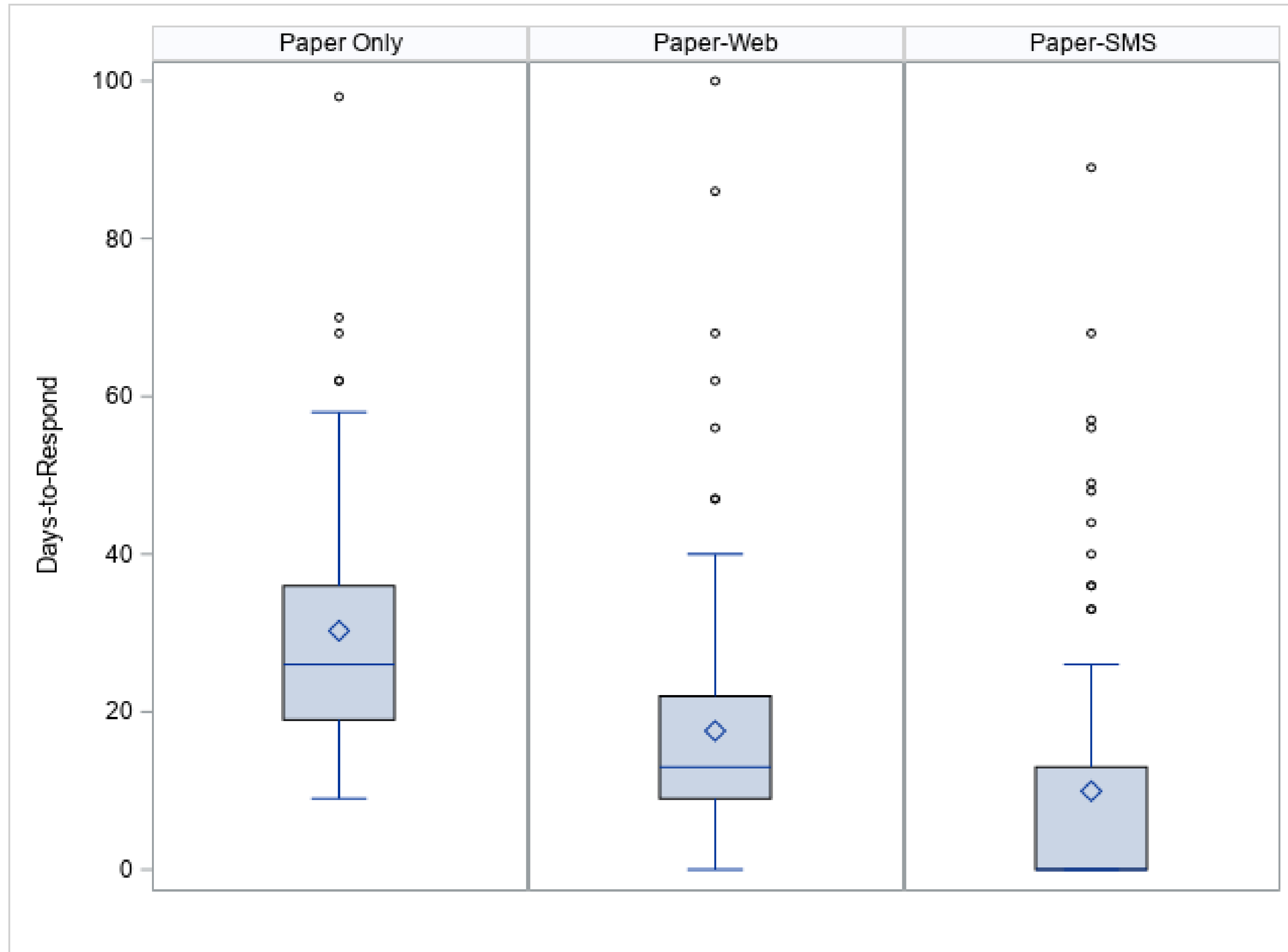
^ Significantly different than Paper + Web with $p < 0.05$

Cumulative response rates by experimental group



- Paper + SMS response rates **started higher** and **remained higher** than other modes throughout self-administered collection period
- Paper + Web **started higher** and **remained higher** than Paper Only throughout the self-administered collection period
- Telephone operations closed the gap between Paper + SMS and Paper + Web final response rates

Days to complete a self-administered questionnaire by experimental group



26 median days for Paper Only

13 median days for Paper + Web

0 median days for Paper + SMS

SMS communication

- Text surveys were completed very quickly
 - On day 0 of data collection, the response rate for the Paper + SMS group was 34%
 - Among those who completed the survey by SMS, about 1/3 did so within 5 minutes of receiving the introductory text message
 - An additional 40% of SMS respondents completed the survey within 1 hour of the introductory text message
- Relatively few text recipients opted out of future messages
 - About 8% replied STOP to end text communication
 - Nearly all of those individuals went on to complete the survey by mail or phone

Summary

Supplementing paper questionnaires with SMS surveys:

- Significantly increased response rates for self-completed surveys compared to Paper Only or Paper + Web
- Collected responses VERY quickly (0 median days to respond)

Supplementing paper questionnaires with e-mailed links to web surveys:

- Significantly increased response rates for self-completed surveys compared to Paper Only (but lower than Paper + SMS)
- Median response time faster than Paper Only, but slower than Paper + SMS
- After telephone follow-up, final response rates similar to Paper + SMS

Future research

- Other populations
- Consent to receive text messages
- Optimal data collection strategy
 - Timing
 - Number and types of contacts
 - Questionnaire length

maura.spiegelman@ed.gov
allison.zotti@census.gov

<https://nces.ed.gov/surveys/ntps/>