

Text-only survey notification? Lessons learned from the U.S. Census Bureau

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U.S. Census Bureau

AAPOR, Virtual - Prerecorded, May 14, 2021

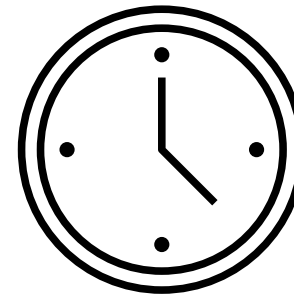
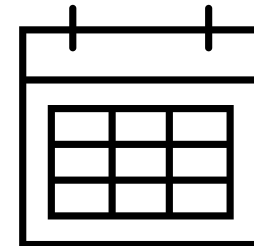
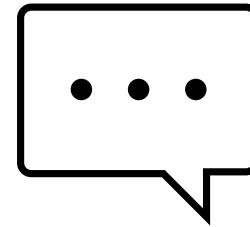
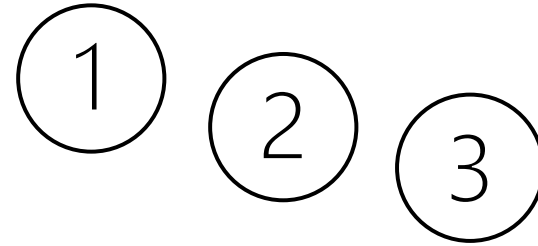
Motivation for text contact

- Problem
 - Wanted to measure satisfaction with the online 2020 Census and determine if there were any issues causing dissatisfaction
- Solution
 - Texting a link to a satisfaction survey appeared to be the fastest way to gather feedback
 - We had the phone number from the census and implied consent.
 - FCC ruled that the federal government is exempt from the Telephone Consumer Protection Act regarding cold-contact texts, but we allow the public to opt-out.

The screenshot shows the 2020 Census website interface. At the top, there is a navigation bar with the United States Census Bureau logo and the text "2020 Census". Below this is a progress indicator with three steps: "Address Verification", "Household Questions" (which is currently active and highlighted in blue), and "Demographic Q". The main content area contains a form titled "What is your name and telephone number?" with a sub-note: "We will only contact you if needed for official Census Bureau business." The form includes three input fields for "First Name", "Middle Name", and "Last Name (s)", and a "Telephone Number" field with a hyphenated format (□ - □ - □). At the bottom of the form, there is a language selection menu with options for ENGLISH, ESPAÑOL, 中文(简体), TIẾNG VIỆT, 한국어, РУССКИЙ, العربية, TAGALOG, and POLSKI. Two blue arrows point from the text in the solution section to the form fields: one points to the "What is your name and telephone number?" heading, and the other points to the "Telephone Number" input field.

Decisions to make

- How many texts?
- What should the texts say?
- What days should we send them?
- **What time should we send them?**



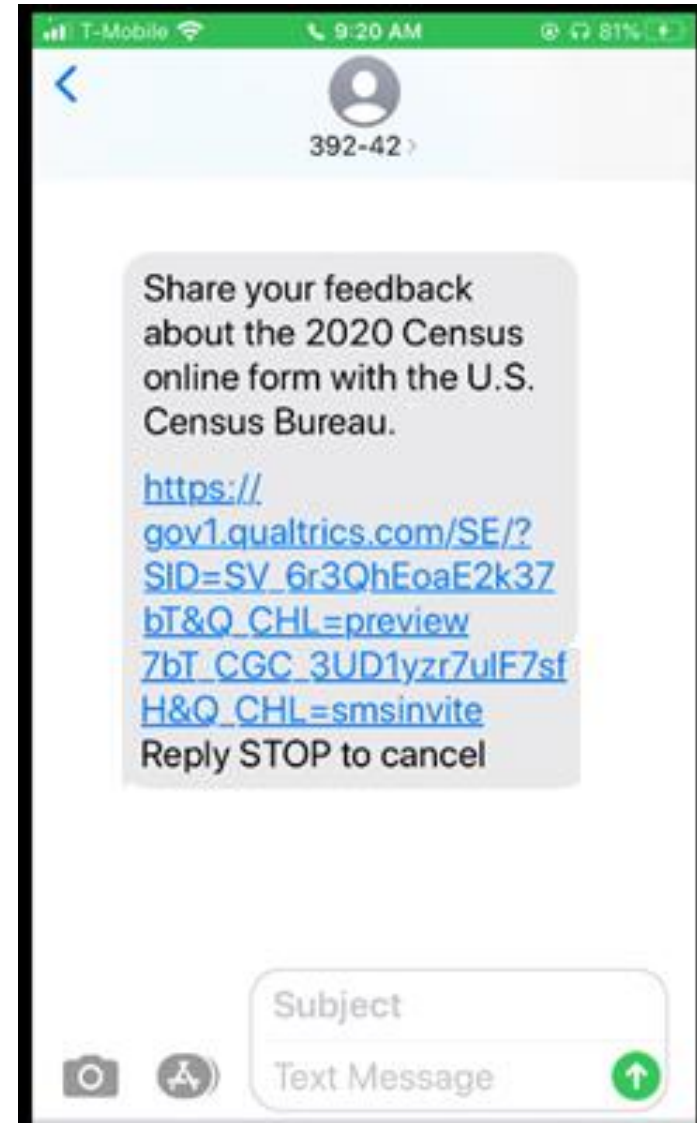
Literature on text as a contact method

- Text message as contact method for a web survey – include the web survey link in the message
 - Quicker response time but no overall boost in response rates
 - McGeeney & Yan (2016)
 - Time of day and day of week had no effect on response rate
 - Andreadis (2020)
 - Reminder texts encouraged respondents who were halfway done to finish their survey
 - Langenderfer-Magruder & Wilke (2020)

Our Data Collection & Experiment

Contact Design

- Sent text to sample of respondents who completed the 2020 Census online
 - Up to 3 texts
 - Included link to 3-minute voluntary satisfaction survey in Qualtrics
 - Sent texts during the week
 - No weekends and no holidays



Sample Design

- Nationwide
 - Total of 153,000 phone numbers contacted
- 4 waves of sample
 - August - November
- Time lag
 - 1 month or more between census completion and text contact for satisfaction survey
- Online survey open
 - 11-days for each wave



Research Design

- Time-of-day text conditions
 - ½ sample received all texts at 12 noon
 - ½ sample received all texts at 6 pm
- Text time was by state time zone



Research Questions

- Does one time generate a higher response?
- Are the characteristics of respondents who answer the 12-noon text different from those who answer the 6 pm text?



Analysis

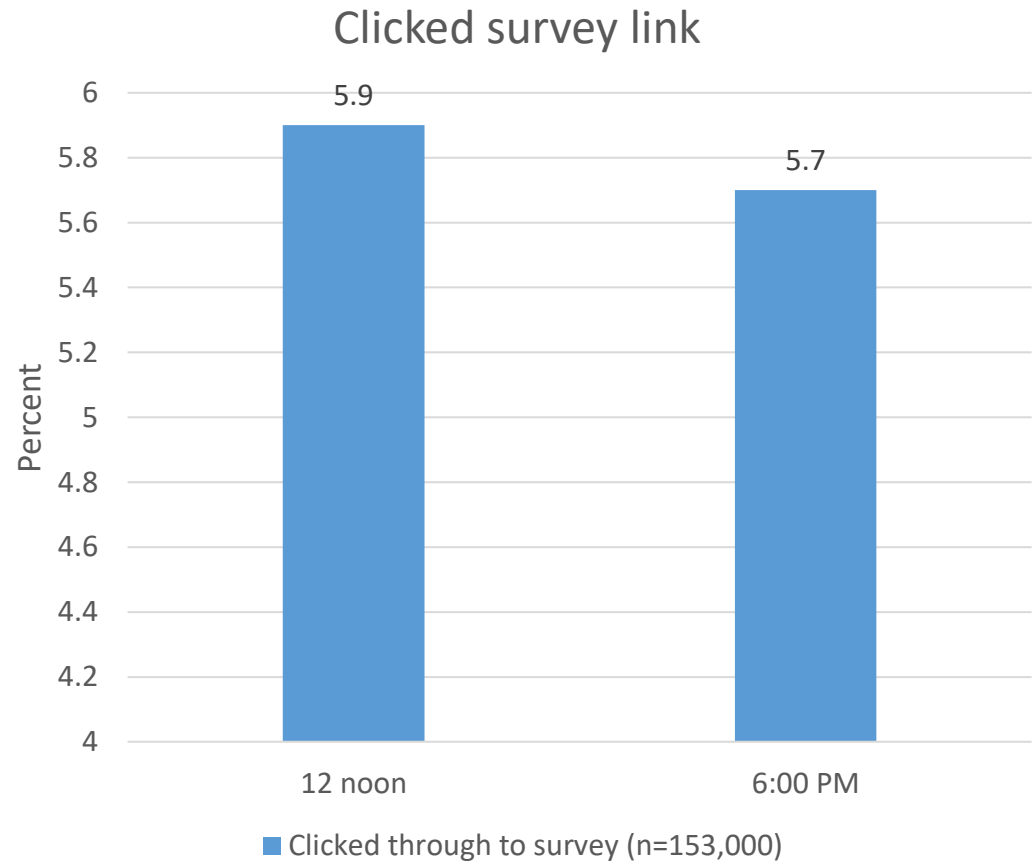
- Chi-square comparisons
 - Response rate comparison by text “time-of-day” condition
 - Clicked survey link – “click through”
 - Answered first question
 - Completed survey
 - Respondent characteristic comparison by text condition
 - Answer to main question in the satisfaction survey
 - Respondent characteristics
 - How they answered the 2020 Census

Findings

Does one time generate a higher response?

Clicked survey link

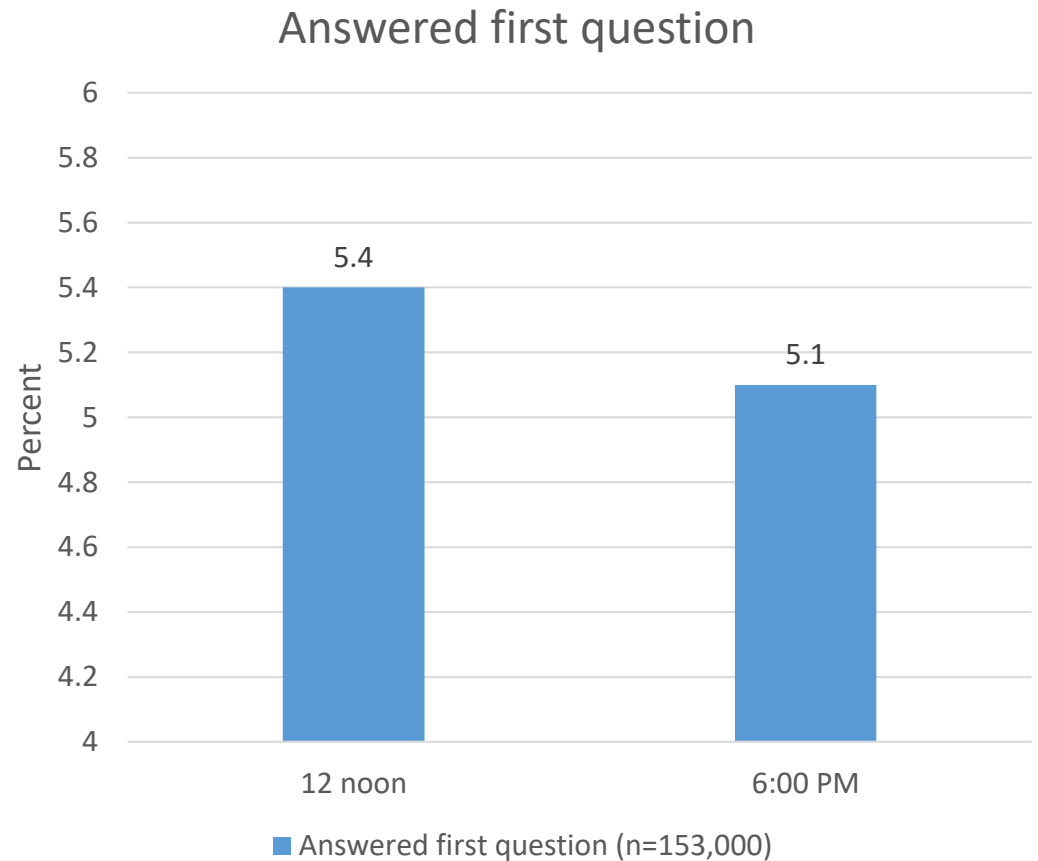
- 12 noon text had significantly more click-through responses than 6 pm text
- $\chi^2(1)=4.4$; $p=.04$



Does one time generate a higher response?

Answered first question

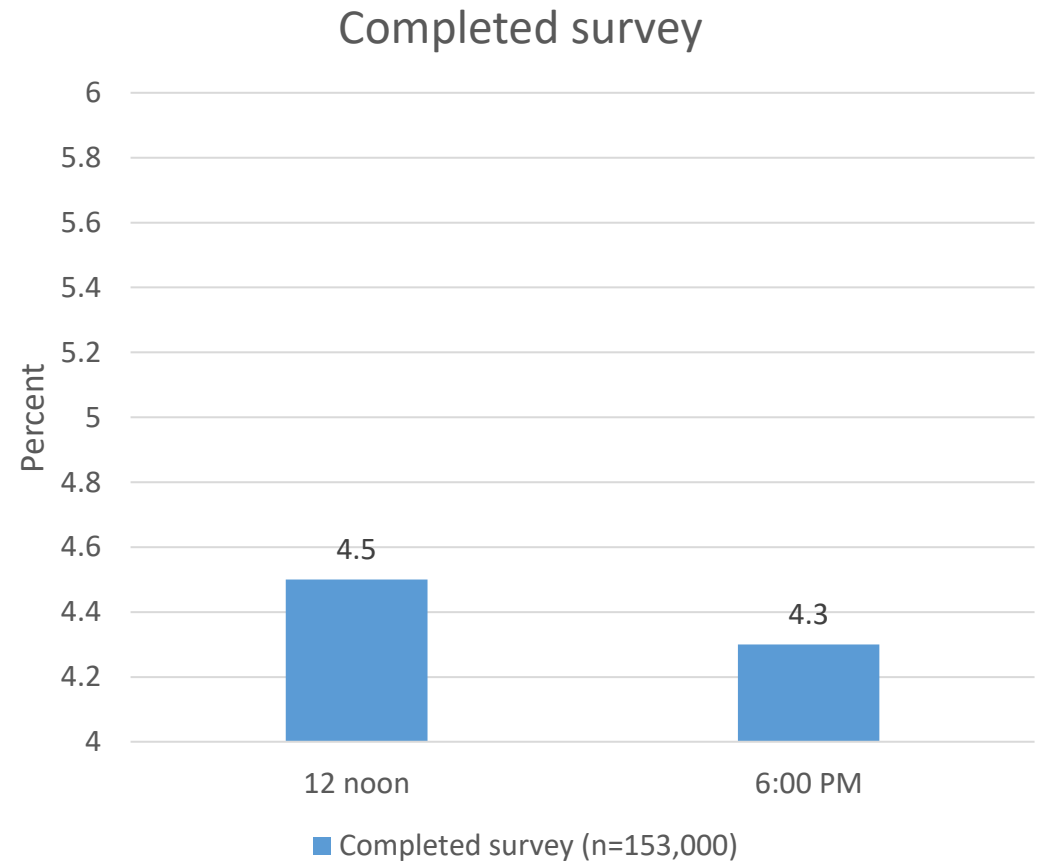
- 12 noon text had significantly more answers to the first question than 6 pm text
- $\chi^2(1)=5.7; p=.02$



Does one time generate a higher response?

Completed entire survey

- 12 noon text had marginally more survey completions than 6 pm text
- $\chi^2(1)=3.6; p=.06$



Do respondent characteristics differ by text time?

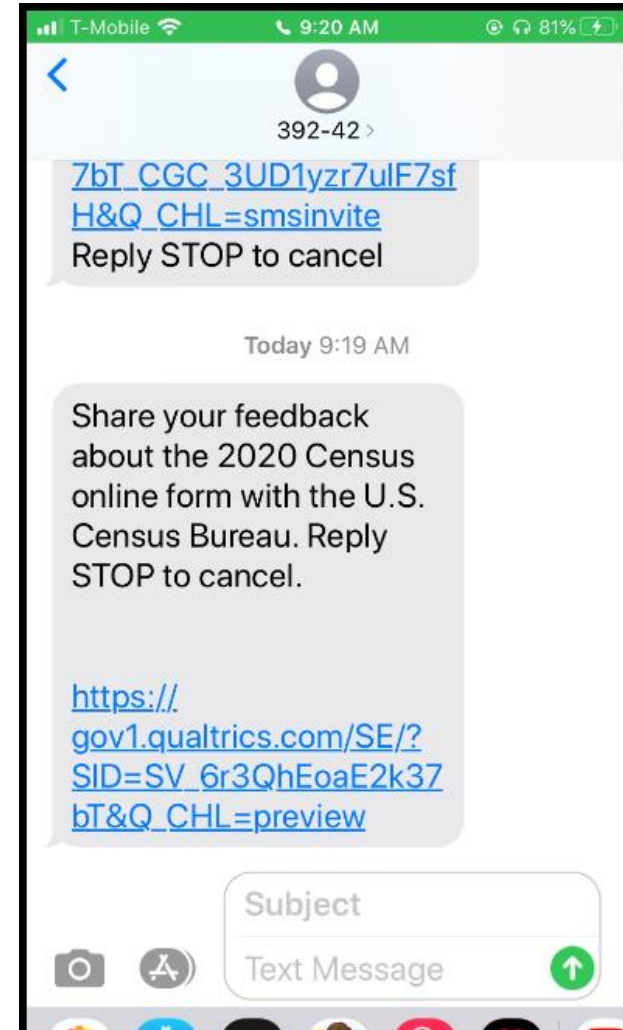
Completed first question (n=7,664)

- No difference in distribution of answers to overall satisfaction question
 - $\chi^2(4)=3.8; p=.4$
- No difference in these respondent characteristics
 - Device used to answer the census $\chi^2(1)=.2; p=.7$
 - Breakoff in 2020 Census $\chi^2(1)=.03; p=.9$
 - Used a Census ID $\chi^2(1)=.2; p=.6$
 - When they answered the census $\chi^2(4)=3.9; p=.4$

Surprise Finding

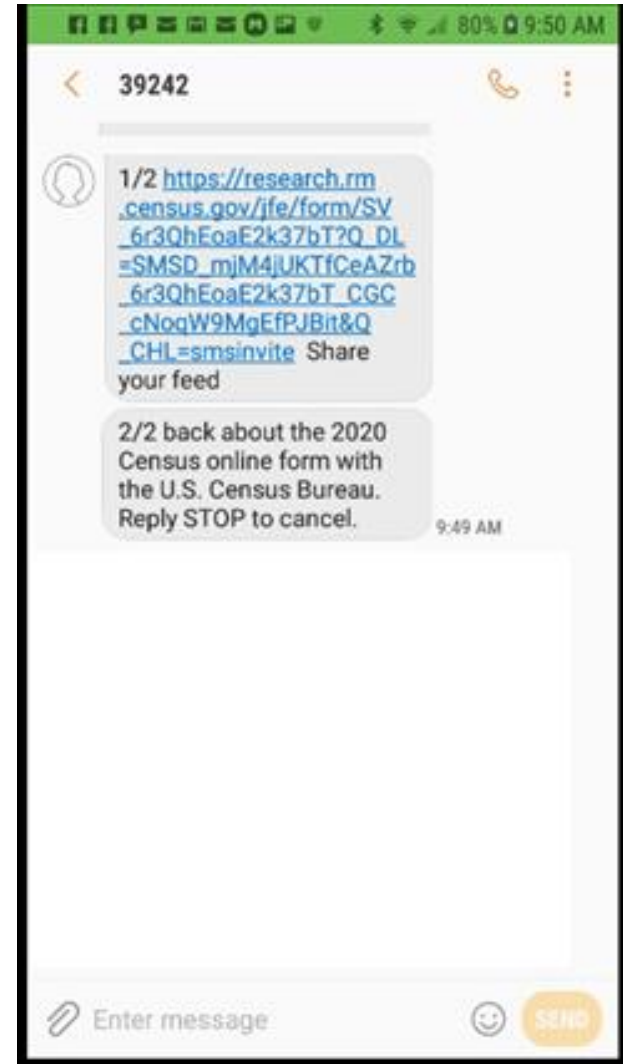
Beware of splitting the URL in your text

- Personalized URL was long – no way to shorten it
- During pre-testing we uncovered that pay-as-you-go phones split the long URL in half – making it unusable



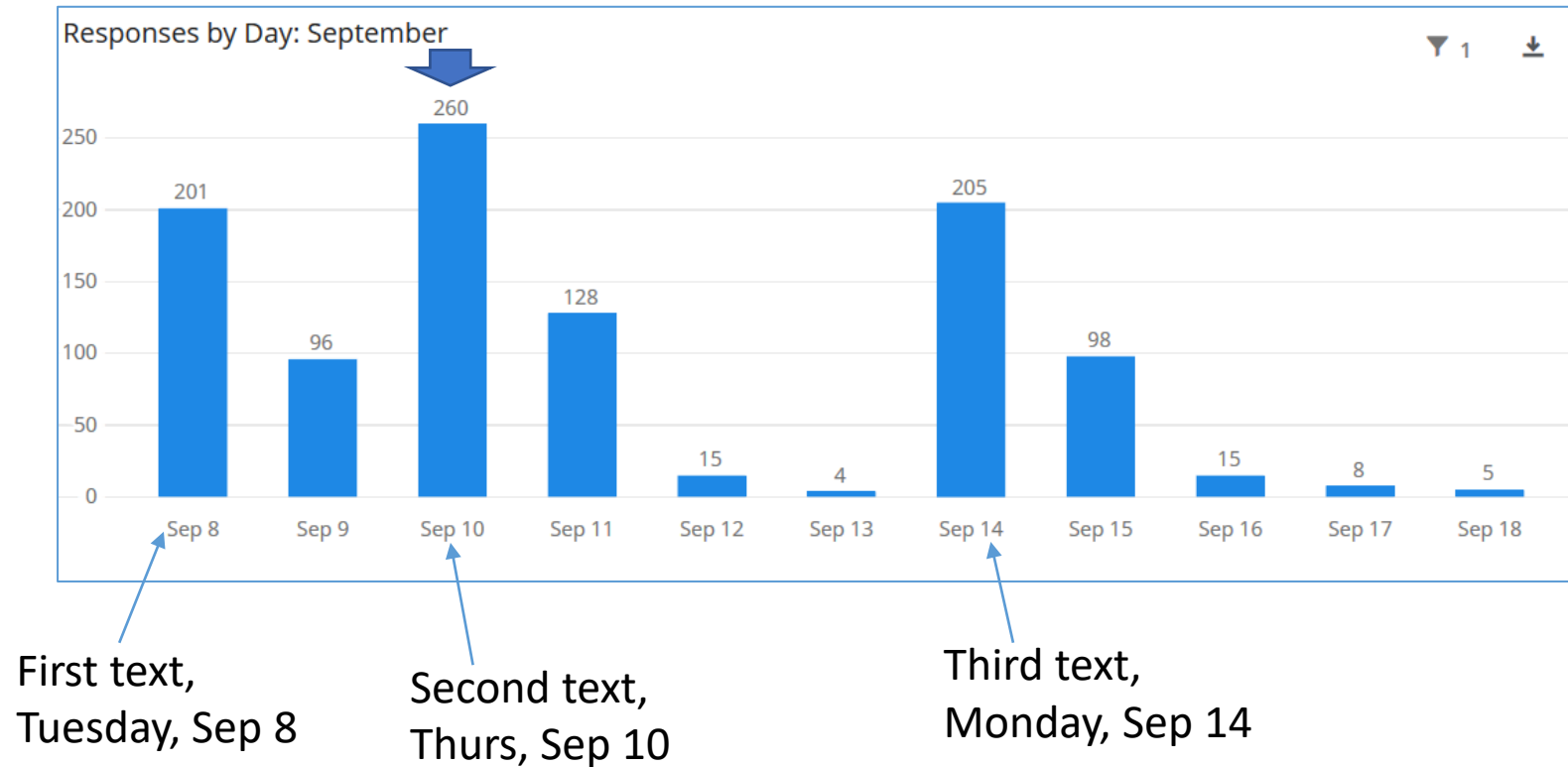
Solution was to put URL-first in 2nd text sent

- 1st text
 - Share your feedback about the 2020 Census online form with the U.S. Census Bureau here: [URL-LINK](#) Reply STOP to cancel
- 2nd text
 - [URL-LINK REMINDER](#): Census Bureau needs your help to understand how the 2020 Census online form worked for you. Reply STOP to cancel
- 3rd text
 - Last chance: Share your experience with the 2020 Census online form. [URL-LINK](#) Reply STOP to cancel



URL-First Texts generated a bump in response

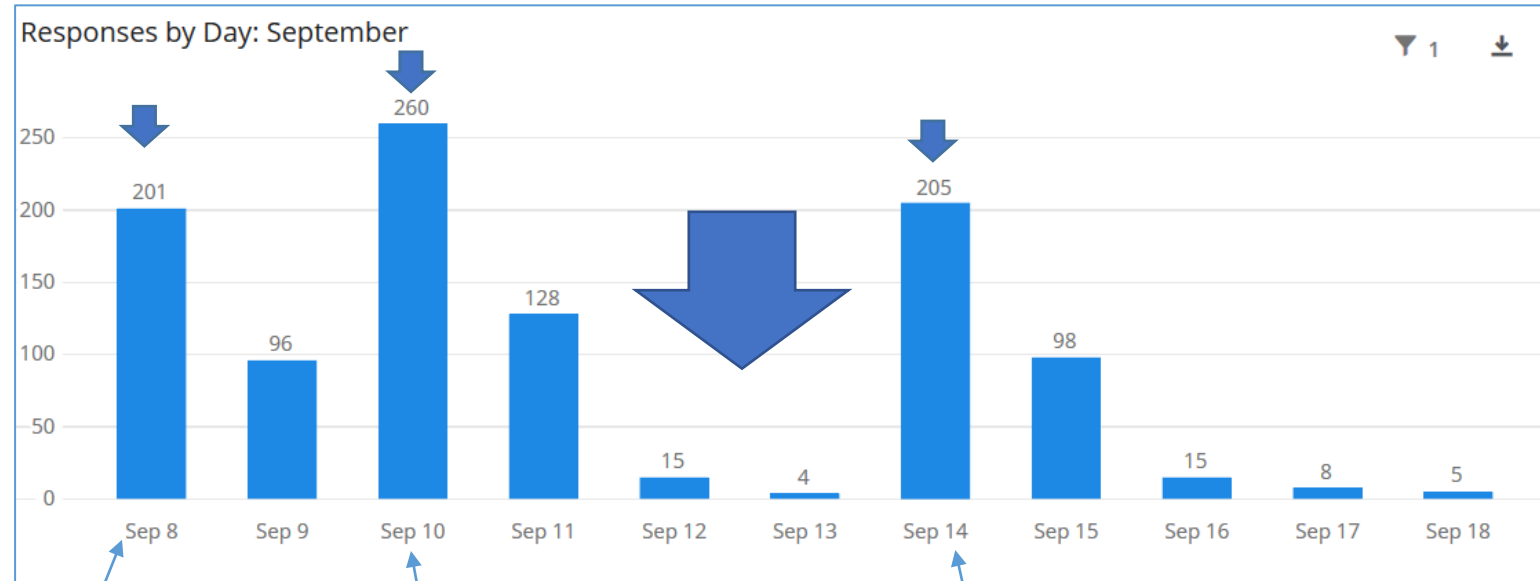
- 2nd text with URL-first generated a bump in responses
- Pattern was consistent across all waves
 - Only 2nd wave shown



Not so surprising

Online response pattern with text contact is like pattern with mail-based contact

- Low response rate over the weekend
 - Same patterns as mail-based contact
- Response spike when text is delivered followed by quick decline
 - Same patterns as mail-based contact
- Pattern was consistent across all waves
 - Only 2nd wave shown



First text,
Tuesday, Sep 8

Second text,
Thurs, Sep 10

Third text,
Monday, Sep 14

Other findings

- Contact device is the response device
 - 93% of the respondents answered the 2020 Census User Satisfaction Survey on a phone
- 15.5% texted back “STOP” which means they “opted out” of the survey
 - 12 noon=16%; 6 pm=15.1%
 - Slightly higher for texts sent around 12 noon
 - $\chi^2(1)=20.9; p<.01$

Considerations & Summary

Texting considerations

- Having location allowed us to send text at the “correct” time
 - Time zones vary in some states so could have been off an hour
- Unique phone number for each respondent with implied consent
 - Consider how a survey participant can opt-in to future text contacts
- Even with opt-in and FCC ruling, service providers appear hesitant to allow large scale texting
 - In wave 1, some texts were delayed by service provider
 - (Did not affect our response rate finding.)

Summary

- Text-only contact generated between 5.1% - 5.4% response
- Although small, daytime text at 12 noon generated slightly more responses than 6 pm text
- 12 noon texts generated slightly more opting out too
- Answers to the survey did not differ between those who responded with 12 noon text and those who responded with 6 pm text
- Respondent characteristics did not differ either between the 2 text times
- Over 90% answered the survey on a phone
- Online reporting pattern mirrors that of mail-based contacts
- URL first worked well as the 2nd text sent

Thank you

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Acknowledgements: Frank McPhillips & team, Sarah Konya, Kristen Hearn, Ahmed Abdulkarim Al Attar, Joanne Pascale, Jenny Childs, Paul Beatty, Qualtrics Team