



Texting for Research: A Brief Guide to the Regulatory Environment and Operational Considerations

American Association of Public Opinion Research (AAPOR)

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Text messages, such as SMS messages, have become an increasingly important part of survey research methods in the United States. They offer the ability to collect survey data at a lower cost and greater speed than, for example, telephone calls, in-person visits, or mailed materials. Text messaging can also be effectively used in conjunction with other data collection modes.

However, restrictions on texting can sometimes pose significant barriers to its use, and there are many operational and technical details worth considering when using text messages for research purposes. This guide contains general information on government and industry rules on texting and an overview of other considerations, supported by a glossary of terms and an annotated bibliography linking to studies on texting for survey research.

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Rules on Texting

Texting rules can be established by both public and private sector organizations. Public sector organizations, such as legislatures, courts, and commissions, create laws and regulations. Private sector organizations, such as telecommunication companies, can also establish their own rules, either individually or through industry organizations. Rules set by the telecommunication industry can be **more stringent** than those mandated by law.

Consent is a key topic in texting rules. These rules generally suggest that, whenever feasible, before sending text messages, research teams should obtain express written consent from each potential text recipient and ensure that consent is specific to the type of texting planned. When it is not feasible to obtain express written consent prior to contacting each potential text recipient, study teams should seek both legal and operational advice. Sending text messages without prior consent might still be both legal and practically possible, but key details have been evolving recently and are likely to undergo further changes. Therefore, obtaining expert legal and operational advice is recommended before sending text messages without prior consent.

The following subsections do not constitute legal advice but serve to provide general information on the rules in place as of the publication date of this guidance document. Statements about what research teams “should” do are recommendations based on current understanding of how best to apply the rules.

Government Rules

Monitoring changes in government rules is strongly recommended. You should **consult a lawyer** to obtain advice about the current federal and state case law. Courts have heard and ruled on numerous cases regarding text messaging, and the case law on this topic is likely to continue evolving over time.

In the United States, various laws and governmental regulations govern text messaging, operating at both the federal and state levels. These laws and regulations can evolve through legislation, regulatory updates, and judicial decisions, underscoring the importance of staying informed about any changes.

When evaluating the compliance of an upcoming text messaging campaign, be sure to include the following in your considerations:

- TCPA - Telephone Consumer Protection Act 47 U.S.C. § 227 SEC. 227. [47 U.S.C. 227] Restrictions on the Use of Telephone Equipment.
<https://www.fcc.gov/sites/default/files/tcpa-rules.pdf>
 - The following is one key excerpt from the act:
“It shall be unlawful for any person within the United States—
(A) to make any call (other than a call made for emergency purposes or made with the prior express consent of the called party) using any automatic telephone dialing system or an artificial or prerecorded voice—
(iii) to any telephone number assigned to a paging service, cellular telephone service, specialized mobile radio service, or other radio common carrier service, or any service for which the called party is charged for the call;”

Interpretation of the TCPA has been the subject of several Federal Communications Commission (FCC) rules and many court cases.

- Federal Communications Commission (FCC) Rules:
 - Texts as a Kind of Call - “The Commission has confirmed that a text message sent using an autodialer is a ‘call’ subject to the TCPA.”¹
 - Texts and Autodialers - Aligning with the TCPA, FCC rules ban text messages sent to a mobile phone using an automatic telephone dialing system (autodialer) unless the recipient “previously gave consent to receive the message or the message is sent for emergency purposes.”² See the Glossary section of this document for a definition of “autodialer”.
 - Manual Texting Platforms— “Consumer and Governmental Affairs Bureau Issues Declaratory Ruling in P2P Alliance Petition for Clarification” (2020), 35 FCC Rcd 6526 (8).
<https://www.fcc.gov/document/cgb-issues-declaratory-ruling-p2p-alliance-petition>
 - The following is a key excerpt from the rule:
“...if a calling platform is not capable of originating a call or sending a text without a person actively and affirmatively manually dialing each one, that platform is not an autodialer and calls or texts made using it are not subject to the TCPA’s restrictions on calls and texts to wireless phones.”
 - Revocation of Consent – “Strengthening the Ability of Consumers to Stop Robocalls, A Rule by the Federal Communications Commission on 03/05/2024”.
<https://www.federalregister.gov/documents/2024/03/05/2024-04587/strengthening-the-ability-of-consumers-to-stop-robocalls>
 - For texts for which consent is required:
 - (1) Revocation of consent can be made in any reasonable manner;
 - (2) Callers and texters must honor do-not-call and consent revocation requests within a reasonable time not to exceed 10 business days of receipt;
 - (3) After revocation of consent, texters may only send a one-time text message confirming a consumer's request that no further text messages be sent.
 - Other Rules. To find other FCC rules related to text messages, use the search feature of the Federal Register: <https://www.federalregister.gov/documents/search>
- CAN-SPAM Act - Controlling the Assault of Non-Solicited Pornography and Marketing Act of 2003. 15 U.S.C §§ 7701-7713. <https://www.fcc.gov/general/can-spam>
 - The CAN-SPAM Act “establishes requirements for commercial messages.”³

¹ *Strengthening the Ability of Consumers To Stop Robocalls, A Rule by the Federal Communications Commission on 03/05/2024*: <https://www.federalregister.gov/documents/2024/03/05/2024-04587/strengthening-the-ability-of-consumers-to-stop-robocalls>. Also see: *In the Matter of Rules and Regulations Implementing the Telephone Consumer Protection Act of 1991: Report and Order. Adopted; June 26, 2003; Released: July 3, 2003*. CG Docket No. 02-278, page 101. <https://docs.fcc.gov/public/attachments/FCC-03-153A1.pdf>

² *FCC Consumer Guide: Stop Unwanted Robocalls and Texts*. Downloaded May 11, 2025. https://www.fcc.gov/sites/default/files/stop_unwanted_robocalls_and_texts.pdf

³ Federal Trade Commission, *CAN-SPAM Act: A Compliance Guide for Business*. Accessed May 11, 2025. <https://www.ftc.gov/business-guidance/resources/can-spam-act-compliance-guide-business>

- Although text messages sent solely for research purposes are not generally considered to be “commercial”, some research practitioners still consider the CAN-SPAM Act’s rules when creating their texting communication plans.
- National Do Not Call Registry (Federal Trade Commission) <https://www.donotcall.gov/>.
 - The National Do Not Call Registry’s provisions “do not cover calls from political organizations, charities, telephone surveyors, or companies with which a consumer has an existing business relationship.”⁴
 - However, promptly honoring requests to be removed from a survey’s texting list is good practice, is required by FCC rule for texts that required consent to send initially,⁵ and is currently required for all texts, under industry rules. For details on industry rules, please see the *Industry Rules* sub-section of this guide, below.
- State Laws. Over a dozen states have their own laws on texting. Some are more restrictive than the TCPA.
- Case Law. The following US Supreme Court opinion is one of the many opinions issued by courts:
 - *Facebook, Inc. v. Duguid et al.* (2021) focused interpreting the meaning of “automatic telephone dialing system” as it is used in the TCPA. https://www.supremecourt.gov/opinions/20pdf/19-511_p86b.pdf

Industry Rules

Telecommunications companies can block text messages from being delivered. They can block messages both pursuant to their individual rules and in accordance with guidelines adopted by other organizations, such as their primary trade association, the Cellular Telecommunications Industry Association (CTIA). Individual company’s rules evolve rapidly and are not accessible to the public, but the CTIA has set forth several “voluntary best practices” that telecommunications companies have been increasingly enforcing as hard rules:

Messaging Principles and Best Practices (May 2023): [230523-CTIA-Messaging-Principles-and-Best-Practices-FINAL.pdf](#)

Two key topics in the CTIA “best practices” rules focus on prior consent and revocation of consent:

- Prior Consent. CTIA’s current (2023) “best practices” state that all organizations, including nonprofit and/or research organizations, should **obtain consent** from each person before sending a text message to that person.

Unlike the TCPA, this prior consent “best practice” applies to texts regardless of whether a text is sent using an “automatic telephone dialing system,” and no exception is noted for manual dialing. Thus, when adopted and enforced strictly by telecommunications companies, the CTIA’s

⁴ Q&A for Telemarketers & Sellers About DNC Provisions in TSR | Federal Trade Commission (ftc.gov) Accessed May 11, 2025. <https://www.ftc.gov/business-guidance/resources/qa-telemarketers-sellers-about-dnc-provisions-tsr-0#callsandorgs>

⁵ *Strengthening the Ability of Consumers To Stop Robocalls, A Rule by the Federal Communications Commission on 03/05/2024*: <https://www.federalregister.gov/documents/2024/03/05/2024-04587/strengthening-the-ability-of-consumers-to-stop-robocalls>

prior-consent “best practice” is more **restrictive than the TCPA**—it requires prior consent even when the TCPA does not require prior consent.

Prior consent is not possible if a text message is the first method of contact. **Any research design that relies on sending text messages as a method of first contact cannot be successfully implemented** under current CTIA “best practices,” which telecommunications companies have increasingly been enforcing as strict rules.

For research designs where obtaining prior consent is possible and thus texting could be reliably allowed by telecommunications companies, **survey researchers should build clear and explicit documentation of consent into their communication protocols** and be prepared to share their documentation of consent as they comply with the CTIA’s texting “campaign” registration process.⁶

While AAPOR agrees in principle that a clean and respectful texting environment benefits us all, overly strict requirements to obtain prior consent can compromise best practices in reaching a representative sample. For more information on AAPOR’s position on this topic, please see the FCC comment, which is located here: <https://www.fcc.gov/ecfs/search/search-filings/filing/10502034945408>.⁷

- **Revocation of Consent.** CTIA’s current (2023) best practices say that all organizations, including nonprofit and/or research organizations, should **ensure that recipients “have the ability to revoke consent”**. Promptly honoring requests to stop sending text messages is essential.

Text messaging service providers often have automated systems that facilitate compliance with CTIA’s best practices for honoring opt-out requests. However, researchers should manually review incoming texts and ensure opt-out requests are being honored. The FCC’s March 2024 rule, entitled “Strengthening the Ability of Consumers to Stop Robocalls,” also addressed this topic.⁸

- To help facilitate revocation of consent, the CTIA (2023) asserts that texters should provide instructions for recipients to opt out of receiving further texts. See section 5.1.2.1 in the *Messaging Principles and Best Practices (May 2023)*⁹ for more details.
- Examples of commonly used instructions include:
 - To opt out, type STOP.
 - To end, type STOP.
 - STOP2end
 - Text STOP to quit.

⁶ Campaign Registry, *Introduction to TCR™*, Accessed May 11, 2025. <https://www.campaignregistry.com/resources/>

⁷ AAPOR (2023) *In the Matter of Targeting and Eliminating Unlawful Text Messages & Rules and Regulations Implementing the Telephone Consumer Protection Act of 1991: Comments of the American Association for Public Opinion Research*. CG Docket No. 21-402 & CG Docket No. 02-278, <https://www.fcc.gov/ecfs/search/search-filings/filing/10502034945408>.

⁸ Strengthening the Ability of Consumers to Stop Robocalls, A Rule by the Federal Communications Commission on 03/05/2024: <https://www.federalregister.gov/documents/2024/03/05/2024-04587/strengthening-the-ability-of-consumers-to-stop-robocalls>

⁹ CTIA (2023) *Messaging Principles and Best Practices (May 2023)*: <https://api.ctia.org/wp-content/uploads/2023/05/230523-CTIA-Messaging-Principles-and-Best-Practices-FINAL.pdf>

- Reply STOP to unsubscribe.

Operational and Technical Considerations

Text messaging, like any channel of communication or mode of data collection, can impact and be impacted by a variety of operational decisions. This section provides overviews of the following topics:

- Types of Texts - (SMS, RCS, and MMS)
- Originating Numbers - (Short Code, 10DLC, 800/ Toll Free)
- Potential Impacts to Message Deliverability Rates
- Other Response Rate Considerations

The use of text messages will vary by study purpose, sample type, and many other technical, operational, and methodological considerations—this is **not** an exhaustive list. The text messaging environment is labile, so each organization and project team may wish to validate operational and technical considerations before and during each implementation.

Types of Texts

There are many ways to send and receive text messages. Both iPhone and Android phone owners can use the following three methods without each recipient needing to install a separate texting app on their phone: SMS, RCS, and MMS.

- SMS (**S**hort **M**essage **S**ervice) – To be transmitted as an SMS, a text message may only include GSM and Unicode characters—it cannot contain media, such as images, videos, or emojis.
 - Costs vary by carrier, third-party texting platform provider, type of originating number (Short Code, 10 Digit Long Code (10-DLC) or toll-free number), and number of segments.
 - Message length and content.
 - i. Single-Segment Messages.
 1. When using the Short Message Service (SMS), costs are often billed per message “segment.” What counts as a segment depends on the characters you use.
 2. If you use only the basic characters compatible with GSM-7 encoding, wireless carriers will count a set of text as a single message segment if it is 160 characters or shorter, including spaces and carriage returns.
 - ii. Multi-Segment Messages.
 1. If a set of text exceeds the single-segment limit, wireless carriers’ transmittal systems will split the text into segments. Wireless carriers charge a fixed rate for each segment they create.
 2. The first split could occur immediately after character 153- and 7- characters worth of hidden data are added. These hidden data enable a recipient’s device to splice segments back together once received. For multi-segment messages, each segment contains seven characters

worth of hidden data, so no more than 153 visible characters appear in each segment.¹⁰

3. Most phones and networks support concatenation; however, not all do. Once split into segments, a set of text *might not* be spliced back together correctly when it reaches some people, so you may wish to consider the split and splice points carefully when composing multi-segment text messages. For example, if your message contains a link, consider arranging the content so the link does not span two segments but instead appears entirely within one segment.

iii. Counting Character Length.

1. Several free tools are available online. These tools can help you to count characters, see split-and-splice points, and plain text message content.
 2. The following are two examples:
 - a. <https://twilioodedev.github.io/message-segment-calculator/>
 - b. <https://freetools.textmagic.com/sms-length-calculator>
- **Security.** Neither SMS P2P (person-to-person) nor SMS A2P (application-to-person) messages are encrypted end-to-end. Researchers may wish to consider the limited security of SMS messaging when deciding which questions to ask via SMS versus in a secure web survey. While SMS may not be encrypted, using a secure SMS platform can help enhance security and ensure compliance with data protection laws.
 - **RCS (Rich Communication Services)** – RCS “is a communication protocol standard for instant messaging, primarily for mobile phones, developed and defined by the GSM Association (GSMA).”¹¹
 - **Message Length and Content.**
 - i. The length allowed for a single RCS message is generally much longer than for a single SMS message.
 - ii. **Content.** Per the GSMA, RCS modernizes “traditional SMS messaging by introducing features like group chats, file sharing, and read receipts. It aims to provide users with a more interactive and engaging messaging experience directly through their native messaging apps.”¹²
 - **Security.** Per the technical director of GSMA, as of September 2024, “The next major milestone is for the RCS Universal Profile to add important user protections such as interoperable end-to-end encryption.”¹³ However, until RCS messages are universally encrypted end-to-end encryption, researchers may wish to consider the limited security

¹⁰Twilio. *SMS Character Limit*. Accessed May 11, 2025. <https://www.twilio.com/docs/glossary/what-sms-character-limit>

¹¹ Wikipedia, *Rich Communication Services*, Accessed May 11, 2025.

https://en.wikipedia.org/wiki/Rich_Communication_Services

¹² GSMA, *Rich Communication Services*, Accessed May 11, 2025. <https://www.gsma.com/solutions-and-impact/technologies/networks/rcs/>.

¹³ GSMA, *Tuesday 17 September 2024: RCS Now in iOS: a New Chapter for Mobile Messaging*, Accessed May 11, 2025. <https://www.gsma.com/newsroom/article/rcs-now-in-ios-a-new-chapter-for-mobile-messaging/>.

of RCS messaging when deciding which questions should be asked over RCS versus in a secure web survey.

- **MMS (Multimedia Messaging Service)** – MMS “is a standardized way to send messages that include multimedia content...over cellular networks.”¹⁴
 - Costs per MMS message are usually higher than the cost per SMS message. The increased cost can be assessed against a higher expected delivery rate.
 - Message Length and Content.
 - i. The length allowed for a single MMS message varies by system and content, but is generally much longer than that allowed for SMS messages.
 - ii. Messages must contain a media component, but that can be a small, nearly invisible image if no visible image is desired.
 - Security. MMS messages are not encrypted end-to-end. Researchers may wish to consider the limited security of MMS messaging when deciding which questions to ask over MMS versus in a secure web survey.

Originating Numbers

Short Code – “A Common Short Code (Short Code) is a five- or six-digit number to and from which text messages can be sent from and to Consumers of all participating U.S. Wireless Providers.”¹⁵

- In the United States, “short codes are administered by the Common Short Code Administration (CSCA), an LLC governed by CTIA, the wireless trade association, on behalf of U.S. wireless carriers. CTIA’s partner, iconectiv, supports technical aspects of the registry.”¹⁶
- Short codes cannot be purchased, only leased.
- Per The Short Code Registry, short codes are “easy to remember, have open rates above 90%, enjoy a high degree of consumer trust, and have very high deliverability relative to other messaging platforms.”¹⁷
- You can find more information about short codes on the Frequently Asked Questions page of the Short Code Registry: <https://www.usshortcodes.com/learn-more/faq>

10DLC (10-digit long code) – When people use the term “10DLC” in North America, they are generally referring to a kind of 10-digit long code that’s been registered with telephone carriers. The registration process involves documentation of intended uses. If actual uses align with the uses approved in the

¹⁴ Wikipedia, *Multimedia Messaging Service*, Accessed May 11, 2025.

https://en.wikipedia.org/wiki/Multimedia_Messaging_Service

¹⁵ CTIA (2023) *Short Code Monitoring Program Handbook Version 1.9 Effective Date, August 2, 2023*. <https://api.ctia.org/wp-content/uploads/2024/01/CTIA-Short-Code-Monitoring-Handbook-v1.9-FINAL.pdf>

¹⁶ Short Code Registry, *What is a short code?* Accessed May 11, 2025. <https://www.usshortcodes.com/about-short-codes/short-codes-101>

¹⁷ The Short Code Registry, *What is a short code?* Accessed May 11, 2025. <https://www.usshortcodes.com/about-short-codes/short-codes-101>

registration process, 10DLC's can allow high volume of application-to-person (A2P) business text messaging.

- As of May 2025, 10DLC's were generally much less expensive to procure than Short Codes. Allowable message volumes over time (velocities) are variable, dependent on the registered campaign type and the assigned trust score of the sending organization.
- Lead times for procurement can be as little as seven days if the company is pre-vetted. However, exacting proof of recipient opt-in is usually required.
- There are two ways to register a 10DLC: (1) The Campaign Registry (TCR) or (2) Campaign Verify, for Political Campaign Texting only.
 - **The Campaign Registry (TCR)** – The Campaign Registry™ registers both the Brand (the company or entity who is sending the text messages) and Campaigns (the specific texting effort).¹⁸
 - Unlike toll-free numbers, 10DLCs can include any US area code.
 - **Campaign Verify** – Campaign Verify™ is a non-partisan, nonprofit service for U.S. political campaigns, parties, and PACs to validate their identity.¹⁹
- One advantage of 10DLCs compared to Short Codes:
 - Originating numbers can be those already owned by an organization, allowing alignment with printed material and pre-existing outbound telephone caller ID numbers to be uniform.

800 or Toll-Free - "Toll free numbers are telephone numbers with distinct three-digit codes that can be dialed from landlines with no charge to the person placing the call. Such numbers allow callers to reach businesses and individuals out of the area without being charged a long-distance fee for the call."²⁰

- When a toll-free number is "text enabled," texts can be sent from and received through it. As of May 2025, the registration process offered for text-enabled toll-free numbers was not as fully developed as for 10DLC.

Potential Impacts to Message Delivery Rates

While this is an always-evolving ecosystem, below are some factors that you may want to consider in the design phase of any texting effort. Anecdotal experience across multiple studies indicates that following these guidelines can sometimes increase the chances that your messages will be delivered, not blocked. Thus, you may want to consider doing each of the following:

1. Hyperlinks
 - a. Avoiding vanity hyperlinks from high-volume, cross-organizational link-shortener services such as TinyURL and bit.ly. Custom short links hosted under your own organization's domain might trigger less blocking of your traffic.

¹⁸ Campaign Registry, *Home*, Accessed May 11, 2025. <https://www.campaignregistry.com/>

¹⁹ Campaign Verify, Accessed May 11, 2025. <https://www.campaignverify.org/>

²⁰ Federal Communications Commission (FCC), *What Is a Toll-Free Number and How Does it Work?* Accessed May 11, 2025. <https://www.fcc.gov/consumers/guides/what-toll-free-number-and-how-does-it-work>

- b. Using HTTPS (Hypertext Transfer Protocol Secure) protocol in your hyperlinks, not HTTP (Hypertext Transfer Protocol).
- c. For messages that contain a website link, putting the link at the end of the message, where many phones will show a preview of the link, including an image preview (favicon) loaded from the site.

2. Message Content

- a. Omitting dollar signs and other mentions of money in messages about surveys or messages sent for campaigns registered under “Polling and voting.”
- b. In your texts, stating who is sending the text and on behalf of whom. Avoid language that a potential respondent might think is sugging (selling under the guise of research).
- c. Choosing wording so that segment severance points are between words (not in the middle of a word) when sending a multi-segment SMS message. Also consider wording the segments so they can be delivered in any order and still make sense.
- d. On notification screens and message preview lists, many users will only see the first part of the most recent message sent. You may want to include key identifying information in those previewed lines.
- e. If you know the name of the person to whom you are sending each message and identifying the message recipient would not create unwarranted privacy or security risks, you may want to customize each message to politely use the name of the intended recipient, as you would with other notification and primary approach letters.

3. Volume

- a. Be aware of the deliverability and potential carrier blocking based on the number of messages sent per hour and day. Consider varying message content within a campaign to avoid triggering carrier blocking in larger, higher-volume campaigns (e.g., every 2,000 messages per hour).

Other Response Rate Considerations

Use the AAPOR standards <https://aapor.org/standards-and-ethics/standard-definitions/> to define and report response rates for texting.

As with any data collection effort, response rates, yield rates, and overall project costs will vary depending on several design factors and method choices. Some factors to consider when utilizing texting are:

- 1) method of conducting the text survey (in-line texting vs. text-to-web),
- 2) target population characteristics,
- 3) sample source/type,
- 4) sample status such as fresh/undialed, all dialed, some dialed/some fresh,
- 5) opted in versus unsolicited versus non-response follow-up from another contact method,

- 6) whether using shortcodes versus full numbers and/or whole numbers with the area code of population being surveyed,
- 7) length of survey,
- 8) when and how survey length is conveyed,
- 9) day of week and time of day sent, or frequency of text messages,
- 10) sequence within other modes of contact for omni channel and multimodal efforts.

The above is not an exhaustive list but is derived from experience with a variety of texting use cases. Such factors will impact cooperation and return on effort differently for different data collection efforts.

Glossary

Key Organizations

- **CTIA** - Cellular Telecommunications and Internet Association. The CTIA represents the U.S. wireless communications industry. Per their website, “As the voice of America’s wireless industry, CTIA: Advocates for legislative and regulatory policies at federal, state, and local levels that foster the continued innovation, investment and increasing economic impact of America’s wireless industry. CTIA is active on a wide range of issues, including spectrum policy, wireless infrastructure, and the Internet of Things, among others.”²¹
- **FCC** – Federal Communications Commission. “The Federal Communications Commission regulates interstate and international communications by radio, television, wire, satellite, and cable in all 50 states, the District of Columbia, and U.S. territories. An independent U.S. government agency overseen by Congress, the Commission is the federal agency responsible for implementing and enforcing America’s communications law and regulations.”²²
- **FTC** – Federal Trade Commission. The mission of the FTC is “protecting the public from deceptive or unfair business practices and unfair methods of competition through law enforcement, advocacy, research, and education.”²³
- **TCPA** – Telephone Consumer Protection Act 47 U.S.C. § 227 SEC. 227. [47 U.S.C. 227] Restrictions on the Use of Telephone Equipment. <https://www.fcc.gov/sites/default/files/tcpa-rules.pdf>

Basic Terms

- **Aggregator**: These are entities that sit between texting applications and the carriers to organize and transmit text message traffic. Examples include Twilio, Telnyx, Bandwidth, and Signalwire, among others.
- **Autodialer** - This term is often used to refer to an “automatic telephone dialing system.” Per the Telephone Consumer Protection Act of 1991, “The term “automatic telephone dialing system” means equipment which has the capacity— (A) to store or produce telephone numbers to be called, using a random or sequential number generator; and (B) to dial such numbers.”²⁴ Interpreting this definition has been the subject of several court cases. In 2021, the Supreme Court weighed in on this definition in *Facebook, Inc. v. Duguid et al.*²⁵ Consult legal counsel to understand how the most current court interpretations apply to your texting work.
- **RDD** – Random Digit Dial: These phone lists are randomly generated using scientific methods to select working blocks (NPA)NXX-11XX or thousand blocks (NPA)NXX-1XXX in area codes and prefixes that intersect the geography to be surveyed. The last two or three digits are randomly generated after selecting the blocks of 100 or 1000 from which to generate a sample.

²¹ CTIA, *Our Mission*, accessed May 11, 2025: <https://www.ctia.org/about-ctia/our-mission>

²² FCC, *About the FCC | Federal Communications Commission*. Accessed May 11, 2025. <https://www.fcc.gov/about/overview>

²³ FTC, *About the FTC*. Accessed May 11, 2025. <https://www.ftc.gov/>

²⁴ Telephone Consumer Protection Act 47 U.S.C. § 227 SEC. 227. [47 U.S.C. 227] RESTRICTIONS ON THE USE OF TELEPHONE EQUIPMENT <https://www.fcc.gov/sites/default/files/tcpa-rules.pdf>

²⁵ *Facebook, Inc. v. Duguid*, 592 U.S. 395 (2021). https://www.supremecourt.gov/opinions/20pdf/19-511_p86b.pdf

- **Robotexts** – Robotexts are “text messages sent to a mobile phone using an autodialer”.²⁶

Types of Text-Enabled Surveys

- **Text-to-web** – Surveys in which a text message is used to distribute a link to a web survey platform, where the survey is then self-administered.
- **In-line text** – A text message survey that is conducted entirely back and forth over text messages rather than simply using text messages to recruit respondents for a survey completed by another means.
- **Live-interviewer** – An in-line text survey where a human interviewer codes responses and sends follow-up questions.

Types of Texters

- **Consumer** – Per the CTIA, “A *Consumer* is an individual person who subscribes to specific wireless messaging services or messaging applications. **Consumers do not include agents, representatives, or any other individuals acting on behalf of Non-Consumers, including businesses, organizations, political campaigns, or entities that send messages to Consumers.**”²⁷
- **Non-Consumer** – Per the CTIA, “A *Non-Consumer* is a business, organization, or entity that uses messaging to communicate with Consumers. **Examples include but are not limited to, large-to-small businesses, financial institutions, schools, medical practices, customer service entities, non-profit organizations, and political campaigns. Non-Consumers also include agents, representatives, or any other individuals acting on behalf of Non-Consumers.**”²⁸

Ways of Texting

- **A2P** – Application-to-Person Texting - Texting done by a business, organization, or similar entity, usually from a computer or system, either individually or by batch, where those texts are sent to a person’s device.
- **P2P** – Person-to-Person Texting – Texting is typically done by an individual sending messages to another individual.
 - Some people use “P2P” to refer to any texting where each message is individually, manually initiated by a human being. The following FCC rule addresses the topic of manual texting and the degree to which manual texting affects the applicability of the TCPA: “Consumer and Governmental Affairs Bureau Issues Declaratory Ruling in P2P

²⁶ FCC Consumer Guide: Stop Unwanted Robocalls and Texts. Accessed May 11, 2025.

https://www.fcc.gov/sites/default/files/stop_unwanted_robotexts.pdf

Also see: *In the Matter of Rules and Regulations Implementing the Telephone Consumer Protection Act of 1991: Report and Order. Adopted; June 26, 2003; Released: July 3, 2003.* CG Docket No. 02-278, page 101.

<https://docs.fcc.gov/public/attachments/FCC-03-153A1.pdf>

²⁷ CTIA (2023) Messaging Principles and Best Practices (May 2023): <https://api.ctia.org/wp-content/uploads/2023/05/230523-CTIA-Messaging-Principles-and-Best-Practices-FINAL.pdf>

²⁸ CTIA (2023) Messaging Principles and Best Practices (May 2023): <https://api.ctia.org/wp-content/uploads/2023/05/230523-CTIA-Messaging-Principles-and-Best-Practices-FINAL.pdf>

Alliance Petition for Clarification” (2020), 35 FCC Rcd 6526 (8).

<https://www.fcc.gov/document/cgb-issues-declaratory-ruling-p2p-alliance-petition>

- The wireless industry’s leading trade group’s “Messaging Principles and Best Practices (May 2023)” no longer lists “P2P” as a separate category of texting. Even the prior (2019) version of that best practices document only labeled “Consumer” texting as P2P and stated, “Consumers do **not** include agents of businesses, organizations, or entities that send messages to Consumers.”²⁹ [emphasis added]

Types of Texts

- **GSM and Unicode characters** – “In mobile telephony, GSM 03.38 or 3GPP 23.038 is a character encoding used in GSM networks for SMS (Short Message Service), CB (Cell Broadcast) and USSD (Unstructured Supplementary Service Data). The 3GPP TS 23.038 standard (originally GSM recommendation 03.38) defines GSM 7-bit default alphabet which is mandatory for GSM handsets and network elements, but the character set is suitable only for English and several Western-European languages.”³⁰
- **SMS – Short Message/Messaging Service** – SMS is “a text messaging service component of most telephone, Internet and mobile device systems. It uses standardized communication protocols that let mobile devices exchange short text messages, typically transmitted over cellular networks.”³¹ Only GSM and Unicode characters are allowed; no other media types are permitted.
- **MMS – Multimedia Messaging Service** – MMS is “a standard way to send messages that include multimedia content to and from a mobile phone over a cellular network.”³²
- **RCS – Rich Communication Services** – RCS “is a communication protocol standard for instant messaging, primarily for mobile phones, developed and defined by the GSM Association (GSMA). It aims to be a replacement of SMS and MMS on cellular networks with more modern features including high resolution image and video support, typing indicators, file sharing, and improved group chat functionality.”³³

Phone Number Types

- **Short Code** – A phone number with fewer than the usual number of digits. In the United States, shortcodes usually contain five or six digits and “are administered by the Common Short Code Administration (CSCA), an LLC governed by CTIA, the wireless trade association, on behalf of U.S. wireless carriers.”³⁴

²⁹ CTIA (2019) Messaging Principles and Best Practices (July 2019): <https://api.ctia.org/wp-content/uploads/2019/07/190719-CTIA-Messaging-Principles-and-Best-Practices-FINAL.pdf>

³⁰ Wikipedia, *GSM 03.38*. Accessed May 11, 2025. https://en.wikipedia.org/wiki/GSM_03.38

³¹ Wikipedia, *SMS*. Accessed May 11, 2025. <https://en.wikipedia.org/wiki/SMS>

³² Wikipedia, *Multimedia Messaging Service*, Accessed May 11, 2025.

https://en.wikipedia.org/wiki/Multimedia_Messaging_Service

³³ Wikipedia, *Rich Communication Services*, Accessed May 11, 2025.

https://en.wikipedia.org/wiki/Rich_Communication_Services

³⁴ Short Code Registry, *What is a short code?* Accessed May 11, 2025. <https://www.usshortcodes.com/about-short-codes/short-codes-101>

- **10DLC** – Stands for 10-digit long code. When people use the term “10DLC” in North America, they are generally referring to a type of 10-digit long code that has been registered with telephone carriers. The registration process involves documentation of intended uses. If actual uses align with the uses approved in the registration process, 10DLC’s can allow high volume of application-to-person (A2P) business text messaging.
- **800 or Toll-Free** – “Toll free numbers are telephone numbers with distinct three-digit codes that can be dialed from landlines with no charge to the person placing the call. Such numbers allow callers to reach businesses and individuals out of the area without being charged a long-distance fee for the call.”³⁵ When a toll-free number is “text enabled”, texts can be sent from and received through it. As of May 2025, the registration process offered for text-enabled toll-free numbers was not as fully developed as for 10DLC.

³⁵ What Is a Toll-Free Number and How Does it Work? <https://www.fcc.gov/consumers/guides/what-toll-free-number-and-how-does-it-work>

Annotated Bibliography

This section describes past research on texting for survey research that has either been published or presented at an AAPOR or similar conference. This is an incomplete document, and by the very nature of such research, only describes texting done at the time the research was conducted. Because this is a rapidly changing landscape, this should not be viewed as conclusive, forward-looking advice. However, these studies may be helpful to researchers looking for considerations to evaluate when planning to use text messages in a survey.

This section is divided into two sections. The studies listed in section D1, “Practices for Texting,” focus on studies on text-based survey methods specifically, while the studies listed in D2, “Comparing Texting to Other Modes,” describe mode-comparison research, whether that is, a comparison of response rates, characteristics of resulting samples, or substantive results. Citations and their associated abstracts are provided below, alphabetically by first author.

D1. Practices for Texting

- Andreadis, Ioannis. 2020. Text Message (SMS) Pre-notifications, Invitations and Reminders for Web Surveys.” *Survey Methods*. <https://surveyinsights.org/?p=13551>.

Abstract: This paper presents the findings derived from a mobile-friendly web survey, during which all invitations and reminders were sent as text messages via short message service (SMS) to the mobile telephones of the target group. The web survey under study was conducted for the National Theatre of Northern Greece (NTNG), the largest theatrical organization of Greece. The list of mobile phone numbers was provided by the organization and the aim of the survey was to collect data from people who have attended events organized by NTNG. The paper examines the impact of various design study features such as pre-notifications, time and day of SMS delivery, lag between invitations and reminders on survey response. It is demonstrated that SMS pre-notifications can significantly improve response rates. The paper suggests that when the mobile phone numbers of the target group are available, it is feasible to conduct a large-scale web survey using SMS as the only contact mode.

- Bucher, Hannah and Matthias Sand. 2022. “Exploring The Feasibility Of Recruiting Respondents And Collecting Web Data Via Smartphone: A Case Study Of Text-To-Web Recruitment For a General Population Survey In Germany”. *Journal of Survey Statistics and Methodology*. 10(4): 886-897. <https://doi.org/10.1093/jssam/smab006>

Abstract: The widespread usage of smartphones, as well as their technical features, offers many opportunities for survey research. As a result, the importance and popularity of smartphone surveys is steadily increasing. To explore the feasibility of a new text-to-web approach for surveying people directly via their smartphones, we conducted a case study in Germany in which we recruited respondents from a mobile random digit dialing sample via text messages that included a link to a web survey. We show that, although this survey approach is feasible, it is hampered by a number of issues, namely a high loss of numbers at the invitation stage, and a high rate of implicit refusals on the landing page of the survey.

- Christian, Leah Milani, Hanyu Sun, Zoe Slowinski, Christopher Hansen, and Martha McRoy. 2024. "When to Text? How the Timing of Text Message Contacts in Mixed-Mode Surveys Impacts Response" *Journal of Survey Statistics and Methodology*. 12(3): 674-696. .
<https://doi.org/10.1093/jssam/smae014>

Abstract: Using multiple modes of contact has been found to increase survey participation over a single contact mode. Text messaging has emerged as a new mode to contact survey participants in mixed-mode survey designs, especially for surveys that include web and/or phone data collection. However, it is unclear how to best combine text messages with mailings and other outreach contacts to improve response rates and data quality. To explore the effectiveness of using text messaging as a contact mode, we conducted a full factorial experiment that varies the sequencing of text messages with mailing contacts (early versus late reminder) and the time text messages were sent (morning versus afternoon). The experiment was implemented in a follow-up wave of a mixed-mode nationally representative longitudinal survey with two sample groups (Cooperative versus Other Respondents). For Cooperative Respondents, text reminders seemed to be effective at increasing completion rates, with the early text reminder being somewhat more effective than the late text reminder, at least early in the field period. For Other Respondents, text invitations were effective at improving the completion rate, but effects diminished quickly once the invitation letter was sent. Additionally, the early text reminder appears to be more effective than the late text reminder at increasing completion rates for Other Respondents. The sequencing of text messages did not affect data quality across sample groups or substantially impact nonresponse. The time of day the text messages were sent did not affect any of the outcome measures examined.

- Collins, Kevin, Alex Dawahare, and Dan Castleman. 2022. "Response Rates and Representativeness in Two Different Types of Text Message Surveys." Presented at the Annual Meeting of the American Association for Public Opinion Research (AAPOR), Chicago, IL.

Abstract: In a series of experiments, we compare live-interviewer text message surveys, in which the interview occurs entirely through the text message interface, and text-to-web surveys, which use text messages to provide links to a web survey interface. We find that for sufficiently short surveys, live interviewer text message surveys offer higher response rates and lower costs. Experiment 3 randomizes length as well as mode, and finds that for surveys longer than 30 questions in length, the greater efficiency of self-interviewing online offsets the effects of hesitancy to click a link from an unknown sender, and above this length, the response rates of text-to-web and the resulting costs outperform live-interviewer text surveys. We also evaluate respondent's stated preferences, finding that in all experiments majorities say they prefer to take the survey over text message than at a link. Finally, we evaluate the representativeness and accuracy of resulting samples, finding inconsistent results across studies.

- Collins, Kevin and Nathaniel Lubin. 2021. "Building Towards Best Practices for Questionnaire Design in Text Messaging Surveys." Presented at the Annual Meeting of the American Association for Public Opinion Research (AAPOR), Virtual Meeting.

Abstract: This research examines two questions about the best way to communicate with respondents in text message surveys. First, how best to communicate about length? In a meta-analysis of 2.6 million attempts over 46 experiments, we test the effect of being specific or vague about survey length, and how this effect varies with (non-randomly assigned) survey length. Unsurprisingly, being specific about survey length helps participation and completion rates when the survey is short, but hurts when it is long. The meta-regression shows that the break-even point is at about 10-12 questions, depending on which outcome is examined. In a separate experiment, we vary both length specificity and whether or not a “signposting” message several questions before the end of the survey improves completion rates. We find that such signposting does improve completion and reduce drop-off, but only when the length was not earlier specified. Together, these indicate that respondents are interested in taking shorter surveys, and information that the survey is short, or alternatively, is almost complete can improve completion rates.

In a separate set of studies, we examine the question about how to communicate about respondent’s names. The text message mode of communication is semi-anonymous, and respondents may show an aversion to being identified by name in a manner that produces higher drop-off and lower completion rates. We find that requiring respondents to confirm their name, and disqualifying those respondents who do not, does improve subsequent match rates to the gender and year of birth associated with the record on the voter file. However, the refusal rates are non-trivial. We experimentally evaluate several different approaches to improving name confirmation rates, and find that in some studies providing a reason why we are asking to confirm their name seems to help, but there are no significant differences across reasons provided. We also find that alternative specifications of the name (e.g. first initial and last name, or first name and last initial) do not improve identity confirmation rates.

- Collins, Kevin, Alex Dawahare, and Nathaniel Lubin. 2024. "Best Practices for Text-to-Web Surveys: How Long To Stay in the Field." Presented at the International Field Directors & Technology Conference (IFD&TC), Cleveland, OH.

Abstract: A growing number of survey researchers are turning to multiple modes of contact including text messages control costs. However, as text-to-web surveys are a relatively novel technology, the best practices for this research are still being developed, and many basic operational questions are still being answered, including the number times an individual respondent should be contacted, the length of time to keep the survey in field (given the asynchronous nature of text message communication), and how to best account for the fact that landlines cannot be texted.

We conducted an experimental, registration-based-sample survey using text-to-web, live phone, and IVR surveys before the 2023 Kentucky statewide elections. We randomly assigned some potential respondents to two rounds of text-to-web or IVR attempts in period 1, then live calls in period 2 to live calls to records in strata with unfilled quotas. Other potential respondents were assigned to be attempted twice with live calls, then texts or IVRs to complete quotas in period 2.

With this experimental design, we address several different research questions, for each looking for differences in both costs and also quality (conceptualized several different ways, including response rates, demographic composition, predictive accuracy and substantive responses, and response quality metrics like straightlining. First, what is the implication of a second round of text invitations for cost and quality? And how does the implications of a second round of text invitations differ from multiple attempts with established telephone methods? Second, how does the length of the field period affect the cost and quality of text message surveys? We find that multiple attempts to raise the cost of the average cost per interview, but produce a more representative sample and more accurate estimates because low-participation respondent types are more likely to respond on the second attempt. Conversely, the people who respond after a day of initial contact are less likely to be low-participation types. However, we find that while including them makes the sample less representative of the target population, it does increase accuracy and lower costs.

- Collins, Samantha, Autumn Houser, Silpa Sevakula, Thomas Brassell, and Randy ZuWallack. 2023. "Administering Reminder Call Back Text Messages: Do Text Reminders work, or are we left on read?" Presented at the Annual Meeting of the American Association for Public Opinion Research (AAPOR), Philadelphia, PA.

Abstract: Callback appointments are a common occurrence in telephone surveys when the sampled respondent is unavailable or requests another time to participate. In the general population, text message reminders have shown promise in helping people meet scheduled medical appointments (Talonen, Aistrich, & Borodulin, 2014; Gurol-Urganci et al., 2013 and FJ Schwebel, ME Larimer, 2018). When applied to survey research, appointment reminders may increase the likelihood of keeping the original appointment, benefit response rates and increase efficiencies of call back attempts.

The Behavioral Risk Factor Surveillance System (BRFSS) is an annual Computer Assisted Telephone Interviewing (CATI) survey administered by the Centers for Disease Control and Prevention and all 50 states, as well as the District of Columbia and several U.S. territories. Using the call history for 20 states and 1 U.S. territory, we examined the effectiveness of the text message intervention using two metrics: a) the completion rate and b) the efficiencies gained on call back attempts with and without a reminder text message.

To examine the impact of the reminder text messages we analyzed the completion rate for 3 groups: 1) call backs made on the same day as the original contact, 2) call backs made on a different day with a reminder text message being sent and 3) call backs made on a different day without a reminder text message being sent. Further, we reviewed the efficiency of the call back attempts with and without a reminder text message being sent.

Our analysis determined that calling a respondent back in the same day yields a higher completion rate. We also found that calling back on a different day without sending text reminders results in the lowest completion rate. Call backs made on a different day with a reminder text message increases the completion rate. The efficiency of our call back attempts

increased with the text reminders, specifically for gaining completes on the first call back attempt. The reminder text messages were also beneficial in gaining completes towards the end of the call attempt protocol.

- Dahl, Molly, Elise Morocco, Larissa Rodriguez, and Christina E. Dancz. 2021. "Acceptability of Text Messaging and Disparities in Mobile Health Access in Women's Health Care: A Survey Study". *TELEMEDICINE and e-HEALTH*. 27(8). DOI: 10.1089/tmj.2020.0516

Abstract: Objective: Few studies in women's health care have utilized text messaging as a data collection tool. Our aims were to (1) determine the willingness of Obstetrics and Gynecology (Ob/Gyn) patients to participate in text message surveys, (2) determine the patient- preferred mode of survey distribution, (3) compare preferences between a low-resource and university population, and (4) review the practical aspects of implementing text message surveys.

Methods: Paper surveys were distributed to Ob/Gyn clinic patients at two academic centers. English and Spanish speakers were included. Questions assessed sociodemographic data, survey preferences, and text messaging preferences. Appropriate tests were used to look for associations between demographics and survey preferences.

Results: One hundred eighty-two participants completed the survey. Respondents were seen at either a university (42%) or a safety net (58%) clinic. Most owned a mobile phone (94%), used text messaging everyday (88%), and had an unlimited data plan (83%). Of the respondents willing to participate in a survey, text messaging was the preferred survey method (70%), followed by phone (14%) and mobile applications (8%). Fifty-six percent of respondents were willing to participate in a daily text message survey. There were no associations between socioeconomic status and survey preferences or willingness to participate in text message surveys. Survey preference was associated with age ($p < 0.01$). Respondents of all age groups preferred text message surveys; however, those aged 31–60 years were most likely to prefer text messaging (odds ratio: 8.3, confidence interval: 2.6–29.8).

Conclusions: Most Ob/Gyn patients are willing and able to participate in text message surveys, and text messaging is the most preferred survey method across sociodemographic categories.

- Hoe, Nina DePena, and Heidi E Grunwald. 2015. "The Role of Automated SMS Text Messaging in Survey Research." *Survey Practice* 8(6). <https://doi.org/10.29115/SP-2015-0027>.

Abstract: Speaking to a need for innovative methods in data collection, this study demonstrates the utilization of web-based, automated SMS text messages in survey research in an attempt to cost-effectively reach more diverse samples of citizens, through their cell phones. The Textizen™ web-based SMS text message platform allows for the large-scale administration of short, text-based surveys. Of particular interest to survey researchers, some traditionally harder-to-reach populations, such as low-income and minority populations, have been quick to adopt mobile phone technologies, and use text-messaging services a higher rate than others. This study describes a recent test of SMS text messages as a "primary" mode of data collection – both in recruiting participants, and administering a survey in a regional context. A sample of 1,000

mobile subscribers was contacted via a “cold text” asking them to participate in a 5-question survey regarding their opinion on a local park; a raffle of 10 iPads was offered as incentive. Non-respondents received follow-up phone calls to determine their reason(s) for not responding, such as a non-working number, the inability to receive text messages, non-interest in text-message survey participation, or invasion of privacy. Significant empirical results include the rate of text message non-receipt, rate of text message receipt, frequency of reported barriers to responding (reasons for not responding), and demographics of respondents. Findings provide rich insight into the use for automated text messages in survey research in general, and have implications for particular local and global markets where the number of mobile subscribers and text message usage is high. This study can inform future experiments aimed to increase both response rates and cost effectiveness, as well as access traditionally harder to reach populations.

- Lau, Charles Q, Herschel Sanders, and Ansie Lombaard. 2019. “Questionnaire design in short message service (SMS) surveys.” *Field Methods*, 31(3): 214-229.
<https://doi.org/10.1177/1525822X19862506>

Abstract: Short message service (SMS or text messaging) surveys can collect data quickly and inexpensively. However, SMS surveys have space constraints that pose difficulties to questionnaire designers: Questions can only be 160 characters or less, surveys must be short, and many respondents use phones with small screens. In this article, we compare SMS and benchmark face-to-face surveys across four African countries to address three common questions in SMS questionnaire design. First, are multiple response questions feasible? Second, is it necessary to randomize response option order? Third, should “don’t know” response options be included? Our results provide practical guidance about how to improve data quality with this emerging mode of data collection.

- McDonald, Brian. "Using SMS Messaging to Explore Recruitment, Survey Response, and Ancillary Data Collection Options." Presented at the International Field Directors & Technology (IFDTC) conference, Austin, TX, May 2016.

Abstract: The opportunities new technologies provide for innovative data collection and threats to validity posed by lower response rates to traditional survey data collection methods encourage survey researchers to test new modes of survey administration. This paper examines data collected from a pilot study using SMS messaging to explore recruitment and survey response. This project tested the feasibility and the relative promise of a SMS text survey platform utilizing texting to supplement telephone survey recruitment and response. The paper further explores the demographics of the original cell phone sample, recruits for the pilot and those that actually responded. Data for this project comes from a non-probability sample using cell phone as the recruitment method. Participants were recruited after completion of a random digit dial telephone survey and supplied consent to send the survey via SMS text.

- McDonald, Brian. "A Closer Look at an SMS Survey: Recruitment, Length, Response, and Cost." Presented at the International Field Directors & Technology (IFDTC) conference, New Orleans, LA, May 2017.

Abstract: Short message survey (SMS) emerged as a new technology in survey administration but its usefulness is limited by the TCPA requirement to obtain consent before sending a text message to a prospective respondent. This project examines data collected from a "text survey" to test SMS survey length and survey response. Data also explores potential differences in recruiting methods; participants were recruited either by providing verbal consent from cold-calling a RDD list of North Carolina cell phones numbers or after completion of a cellphone sample telephone survey. This data also will provide additional insight into the demographics of text survey participants, cost of recruitment and the representativeness of the sample.

- McDonald, Brian, and Martin J. Kifer. "Using SMS in Mobile Data Collection: Recruitment, Cost & Response." Presented at the American Association for Public Opinion Research (AAPOR) conference, Denver, CO, May 2018.

Abstract: Data collected from original text message surveys conducted during 2016 and 2017 during which participants either gave verbal consent after being cold-called on cell phones or after completing a telephone survey, provided a baseline for a tolerable questionnaire length for a SMS-based survey and an above-average response rate from a panel of recruits. Also provided insight into the cost and time to complete a SMS survey and panel demographics. The application of SMS as a substitute or supplement to traditional survey data collection methods continues to be limited by the Telephone Consumer Protection Act of 1991 requirement to obtain consent from participants before sending them text messages. This paper explores ways to use SMS as a mixed-method approach to supplement telephone surveys. The research also provided an understanding of recruiting participants as well as other methodological considerations for administering such surveys.

- Muldavin, Brenna and Burton Levine, Naomi Freedner, Stephanie Eckman, Joe Murphy, Carol Pierannunzi, William Garvin, and Machell Town. 2022. "Using Text Messages to Invite Web Survey Participation." Presented at the Annual Meeting of the American Association for Public Opinion Research (AAPOR), Chicago, IL.

Abstract: Due to the well-known problems with telephone and mail surveys, we tested the delivery of web survey invitations via text messages. As part of a pilot study for the Behavioral Risk Factor Surveillance System (BRFSS) in November and December of 2021, we sent text messages to more than 330,000 cell phone numbers, inviting the recipient to complete a brief health survey online. Each invitation included a link to the web survey. We manipulated the text message content in a series of experiments. The presentation will compare response rates, representativeness, and cost per completed interview between experimental groups to identify which text messages were most effective. It will also discuss the substantial logistical difficulties we encountered in sending a high volume of text messages. In addition to asking health questions, the web survey also asked survey participants how comfortable they were clicking on the link that led them to the survey. The answers to these questions provided insight into the reasons that some text messages performed better than others. Our results will guide use of text

messages to deliver web survey invitations.

- Nazariadli, Shahab, Duarte Morais, Bruno Ferreira, and John Bass. 2016. "Methodological considerations for SMS surveys." (Report No. P1TLab 2016-001). DOI: 10.13140/RG.2.2.20759.57768

Abstract: As methods of communication proliferate, researchers are continuously exploring means to collect data from informants in ways that best fit their methodologies, populations and budgets. Conducting surveys through SMS has emerged as an alternative to more traditional paper-based and phone surveys because of the ubiquitous use of mobile phones, even among low-resource populations. In this document we describe previous uses of the SMS platform to conduct survey research, and we discuss important methodological considerations when using this medium. The purpose of this working paper is to encourage critical consideration of pros and cons of SMS surveying, and to inform the development of a web platform that might enable researchers to fully capitalize on the advantages of SMS while mitigating its most salient shortcomings.

D2. Comparing Texting to Other Modes

- Barros Amorim, Anita, Danielle Coombs, Bethan Richards, Chris G Maher, Gustavo C Machado. 2021. "Text Messaging and Web-Based Survey System to Recruit Patients With Low Back Pain and Collect Outcomes in the Emergency Department: Observational Study." *JMIR mHealth and uHealth*. 9(3).

Abstract: Background: Low back pain (LBP) is a frequent reason for emergency department (ED) presentations, with a global prevalence of 4.4%. Despite being common, the number of clinical trials investigating LBP in the ED is low. Recruitment of patients in EDs can be challenging because of the fast-paced and demanding ED environment.

Objective: The aim of this study is to describe the recruitment and response rates using an SMS text messaging and web-based survey system supplemented by telephone calls to recruit patients with LBP and collect health outcomes in the ED.

Methods: An automated SMS text messaging system was integrated into Research Electronic Data Capture and used to collect patient-reported outcomes for an implementation trial in Sydney, Australia. We invited patients with nonserious LBP who presented to participating EDs at 1, 2, and 4 weeks after ED discharge. Patients who did not respond to the initial SMS text message invitation were sent a reminder SMS text message or contacted via telephone. The recruitment rate was measured as the proportion of patients who agreed to participate, and the response rate was measured as the proportion of participants completing the follow-up surveys at weeks 2 and 4. Regression analyses were used to explore factors associated with response rates.

Results: In total, 807 patients with nonserious LBP were invited to participate and 425 (53.0%)

agreed to participate. The week 1 survey was completed by 51.5% (416/807) of participants. At week 2, the response rate was 86.5% (360/416), and at week 4, it was 84.4% (351/416). Overall, 60% of the surveys were completed via SMS text messaging and on the web and 40% were completed via telephone. Younger participants and those from less socioeconomically disadvantaged areas were more likely to respond to the survey via the SMS text messaging and web-based system.

Conclusions: Using an SMS text messaging and web-based survey system supplemented by telephone calls is a viable method for recruiting patients with LBP and collecting health outcomes in the ED. This hybrid system could potentially reduce the costs of using traditional recruitment and data collection methods (e.g., face-to-face, telephone calls only).

- Brenner, Philip S., J. Lee Hargraves, and Carol Cosenza. 2022. "Testing a Planned Missing Design to Reduce Respondent Burden in Web and SMS Administrations of the CAHPS Clinician and Group Survey (CG-CAHPS)." *Journal of Official Statistics*, 38(4): 963-986.

<https://ideas.repec.org/a/vrs/offsta/v38y2022i4p963-986n6.html>

Abstract: The authors using a nonprobability panel tested if randomly assigning respondents to answer only a subset of questions will shorten the survey duration and reduce respondent burden. The control group received a 25-item survey while the treatment group received a shorter version that contained 15-item. The data collection modes were email invitation to a web survey, SMS invitation to a web survey, and SMS invitation to an SMS survey. They found that the shortened version reduced survey duration and breakoffs without impacting estimates for respondents who completed the web survey. The results were not clear for respondents who completed the SMS survey. The shorter SMS survey reduced breakoffs but did not reduce the survey duration. The authors also found a mode of invitation effect. Respondents who were willing and able to receive a SMS invitation were substantially different from respondents who were not willing or able to receive a SMS invitation.

- Cabrera-Álvarez, Pablo, and Peter Lynn. 2024. "Text Messages to Facilitate the Transition to Web-First Sequential Mixed-Mode Designs in Longitudinal Surveys." *Journal of Survey Statistics and Methodology*, <https://academic.oup.com/jssam/advance-article/doi/10.1093/jssam/smae003/7631795?rss=1>

Abstract: This article is concerned with the transition of a longitudinal survey from a single-mode design to a web-first mixed-mode design and the role that text messages to sample members can play in smoothing that transition. We present the results of an experiment that investigates the effects of augmenting the contact strategy of letters and emails with text messages, inviting the sample members to complete a web questionnaire and reminding them of the invite. The experiment was conducted in a subsample of Understanding Society, a household panel survey in the United Kingdom, in the wave that transitioned from a CAPI-only design to a sequential design combining web and CATI. In the experiment, a quarter of the sample received letters and emails, while the rest received between one and three text messages with a personalized link to

the questionnaire. We examine the effect of the text messages on response rates, both at the web phase of a sequential design and at the end of the fieldwork after a CATI follow-up phase, and explore various mechanisms that might drive the increase in response rates. We also look at the effects on the device used to complete the survey and field efforts needed at the CATI stage. The findings indicate that text messages did not help to significantly increase response rates overall, although some subgroups benefited from them, such as panel members who had not provided an email or postal address before. Likewise, the text messages increased web completion among younger panel members and those with an irregular response pattern. We only found a slight and nonsignificant effect on smartphone use and no effect on the web household response rate, a proxy for fieldwork efforts.

- Collins, Kevin and Nathaniel Lubin. "Live-Interviewer SMS Polling: Evaluating Text Message Surveys for Pre-Election Polling." 2019. Presented at the Annual Meeting of the Association for Public Opinion Research (AAPOR), Denver, CO.

Abstract: Compared accuracy of text-only surveys to New York Times / Siena College polls in 20 congressional districts with overlapping fielding. Found text messages to have only 0.3 pp higher mean average error compared to New York Times / Siena College polling, and to have higher response rates overall and within every comparable demographic category except for the oldest age cohort.

- Eleonora Dal Grande, Catherine Ruth Chittleborough, Stefano Campostrini, Maureen Dollard, Anne Winifred Taylor. 2016. "Pre-Survey Text Messages (SMS) Improve Participation Rate in an Australian Mobile Telephone Survey: An Experimental Study." *PLoS ONE*, 11(2).
<https://doi.org/10.1371/journal.pone.0150231>

Abstract: Mobile telephone numbers are increasingly being included in household surveys samples. As approach letters cannot be sent because many do not have address details, alternatives approaches have been considered. This study assesses the effectiveness of sending a short message service (SMS) to a random sample of mobile telephone numbers to increase response rates. A simple random sample of 9000 Australian mobile telephone numbers: 4500 were randomly assigned to be sent a pre-notification SMS, and the remaining 4500 did not have a SMS sent. Adults aged 18 years and over, and currently in paid employment, were eligible to participate. American Association for Public Opinion Research formulas were used to calculated response cooperation and refusal rates. Response and cooperation rate were higher for the SMS groups (12.4% and 28.6% respectively) than the group with no SMS (7.7% and 16.0%). Refusal rates were lower for the SMS group (27.3%) than the group with no SMS (35.9%). When asked, 85.8% of the pre-notification group indicated they remembered receiving a SMS about the study. Sending a pre-notification SMS is effective in improving participation in population-based surveys. Response rates were increased by 60% and cooperation rates by 79%.

- Kirtland, Karen, William Garvin, Ting Yan, Michelle Cavazos, Marcus Berzofsky, Naomi Freedner, Brenna Muldavin, Burton Levine, Sonya Gamble, and Machell Town. 2023. "Outcomes of

Population Surveillance Data Collection Pilots and the Behavioral Risk Factor Surveillance System: What Happens in Texas." *Survey Practice* 16 (1). <https://doi.org/10.29115/SP-2023-0013>.

Abstract: Declining response rates and rising costs have prompted the search for alternatives to traditional random-digit dialing (RDD) interviews. In 2021, three Behavioral Risk Factor Surveillance System (BRFSS) pilots were conducted in Texas: data collection using an RDD short message service (RDD SMS) text-messaging push-to-web pilot, an address-based push-to-web pilot, and an internet panel pilot. We used data from the three pilots and from the concurrent Texas BRFSS Computer Assisted Telephone Interview (CATI). We compared unweighted data from these four sources to demographic information from the American Community Survey (ACS) for Texas, comparing respondents' health information across the protocols as well as cost and response rates. Non-Hispanic White adults and college graduates disproportionately responded in all survey protocols. Comparing costs across protocols was difficult due to the differences in methods and overhead, but some cost comparisons could be made. The cost per complete for BRFSS/CATI ranged from \$75 to \$100, compared with costs per complete for address-based sampling (\$31 to \$39), RDD SMS (\$12 to \$20), and internet panel (approximately \$25). There were notable differences among survey protocols and the ACS in age, race/ethnicity, education, and marital status. We found minimal differences in respondents' answers to heart disease-related questions; however, responses to flu vaccination questions differed by protocol. Comparable responses were encouraging. Properly weighted web-based data collection may help use data collected by new protocols as a supplement to future BRFSS efforts.

- Mavletova, Aigul, and Mick P. Couper. 2014. "Mobile Web Survey Design: Scrolling versus Paging, SMS versus Email Invitations." *Journal of Survey Statistics and Methodology*, 2(4): 498–518. <https://doi.org/10.1093/jssam/smu015>.

Abstract: There is some evidence that questionnaire design (scrolling or paging) and invitation mode (SMS or e-mail) have an impact on response rates in web surveys completed on personal computers (PCs). This paper examines whether these findings can be generalized to mobile web surveys. First, we explore the effect of scrolling versus paging design on the breakoff rate, item nonresponse, and completion time in mobile web surveys. Second, we investigate which type of invitation and reminder mode (SMS or e-mail) is more effective in terms of producing higher participation rates and maximizing the percentage of respondents who complete the survey via a mobile device rather than a PC. The paper summarizes the results of an experiment conducted among members of a volunteer online access panel in Russia, who were asked to complete the survey using a mobile device. We find that the scrolling design leads to significantly faster completion times, lower (though not significantly lower) breakoff rates, fewer technical problems, and higher subjective ratings of the questionnaire. We also find that SMS invitations are more effective than e-mail invitations in mobile web surveys.

- McDonald, Brian, and Martin J. Kifer. 2019. "SMS as a Substitute or Supplement to Traditional Survey Data Collection Methods." Presented at the American Association for Public Opinion Research (AAPOR) conference, Toronto, Canada, May 2019.

Abstract: Data from original text message surveys to help understand methodological considerations for using SMS as a mixed-method approach to supplement other modes of data collection. A panel of respondents recruited and consented to receive texts via the telephone (cellphone and landline; landlines provided a cellphone number to text). Using Qualtrics as the SMS survey delivery method, randomly selected respondents received the entire survey via SMS or received a link to an online version of the survey. Data will help explore mode effects using the two data collection methods. The survey was designed to gather additional information such as open-ended responses and length spent on each question.

- Schober, Michael F., Frederick G. Conrad, Christopher Antoun, Patrick Ehlen, Stefanie Fail, Andrew L. Hupp, Michael Johnston, Lucas Vickers, H. Yanna Yan, and Chan Zhang. 2015. "Precision and Disclosure in Text and Voice Interviews on Smartphones." *PLoS ONE*, 10(6). <https://doi.org/10.1371/journal.pone.0128337>

Abstract: As people increasingly communicate via asynchronous non-spoken modes on mobile devices, particularly text messaging (e.g., SMS), longstanding assumptions and practices of social measurement via telephone survey interviewing are being challenged. In the study reported here, 634 people who had agreed to participate in an interview on their iPhone were randomly assigned to answer 32 questions from US social surveys via text messaging or speech, administered either by a human interviewer or by an automated interviewing system. 10 interviewers from the University of Michigan Survey Research Center administered voice and text interviews; automated systems launched parallel text and voice interviews at the same time as the human interviews were launched. The key question was how the interview mode affected the quality of the response data, in particular the precision of numerical answers (how many were not rounded), variation in answers to multiple questions with the same response scale (differentiation), and disclosure of socially undesirable information. Texting led to higher quality data—fewer rounded numerical answers, more differentiated answers to a battery of questions, and more disclosure of sensitive information—than voice interviews, both with human and automated interviewers. Text respondents also reported a strong preference for future interviews by text. The findings suggest that people interviewed on mobile devices at a time and place that is convenient for them, even when they are multitasking, can give more trustworthy and accurate answers than those in more traditional spoken interviews. The findings also suggest that answers from text interviews, when aggregated across a sample, can tell a different story about a population than answers from voice interviews, potentially altering the policy implications from a survey.

- Pennay, Darren, Benjamin Phillips, Dina Neiger, Andrew Ward, Sam Slamowicz, and Anna Lethborg. 2024. "Results from the 2022 Australian Comparative Study of Survey Methods (ACSSM)." *CSRM & SRC Methods Paper* No. 1/2024.

Abstract: Many studies comparing the accuracy of survey estimates generated from probability-samples and non-probability samples have been undertaken over the last 15 years. This study (the Australian Comparative Study of Survey Methods – ACSSM) is one of only a few to build upon a previous study, thereby enabling not only point-in-time comparisons of the relative

accuracy of estimates generated from probability and non-probability sample surveys, but also the relativity of these comparisons over time.

The ACSSM compares the results from eight parallel surveys of the residential Australian adult population. The survey methods used are (1) computer-assisted telephone interviewing (CATI) with persons contactable via randomly generated mobile phone numbers, (2) mixed-mode (computer-assisted web interviewing [CAWI] and CATI) interviews via a probability-based online panel, (3) video-assisted live interviewing (VALI) via a probability-based online panel, (4) using SMS push-to-web to obtain questionnaires from a random sample of mobile phone numbers, and (5–8) four samples provided by four non-probability online panels.

We find that non-probability online panel surveys are cheaper, quicker, and generally less accurate, but sometimes only slightly so, than the probability-based alternatives. Within the limitations of this comparative analysis, there is also evidence that the accuracy gap in favour of probability-based sample surveys over non-probability online panel surveys may have narrowed in recent years.

The results generated from probability-based sample surveys are less variable than those obtained when the same questionnaire is administered to members of non-probability online panels. This lower variability, along with the increased methodological disclosure generally associated with probability-based sample surveys, provides survey researchers with grounds to be more confident in the results generated from probability-based sample surveys than those generated from non-probability online panels. We also find, although more equivocally than previous studies, that weighting is more effective in reducing bias for probability-based sample surveys than surveys conducted on non-probability online panels, for which weighting sometimes increases bias.

A pertinent issue remains for those choosing to fund non-probability sample surveys in that, for any given survey, or any given items within a survey, researchers have a less solid basis from which to affirm the accuracy and generalisability of their results than if the same questionnaire is administered to a probability-based sample. Nor can they be as confident as to whether they should use weighted or unweighted data.

It still does seem to be the case that if one wishes to generalise from a sample to the inferential population, that probability-based sample surveys of the general population allow one to do so with more confidence than do non-probability online panel surveys. The cost one is prepared to pay for this increased accuracy and increased confidence is the dilemma, with survey researchers – including academic survey researchers – turning increasingly to the use of far cheaper non-probability online panels.

We conclude with a plea for transparency, especially about the recruiting and sampling practices used by non-probability panel providers. Greater transparency can only enhance the credibility of non-probability panels overall and may lead to new methodological insights which further improve the accuracy of the estimates generated from such panels. If this occurs, survey

researchers may have more reason for confidence in the survey estimates generated from non-probability online panels.

- Phillips, Benjamin and Shane Compton. 2019. "Text messages and reminder calls in student and alumni web surveys". *CSRM & SRC METHODS PAPER*, No. 4/2019

Abstract: The impact of text messages (SMS) and reminder calls on response to web surveys was experimentally tested using a crossed design on two surveys in the Quality Indicators for Learning and Teaching suite of studies for the Australian Government Department of Education: the May 2018 Graduate Outcomes Survey and the 2018 Student Experience Survey. SMS and telephone reminders were associated with increased probability of response for both surveys. Telephone reminders were more effective than SMS on a per-contact basis. However, taking into account the higher cost of a reminder call than a reminder SMS, sending an SMS reminder was more cost-effective. This research adds to the limited literature on the effectiveness of reminder calls and SMS for surveys.

- Spiegelman, Maura, Allison Zotti, and Julia Merlin. 2024. "Supplementing a Paper Questionnaire with Web and Two-Way Short Message Service (SMS) Surveys." *Journal of Survey Statistics and Methodology*. <https://doi.org/10.1093/jssam/smae006>

Abstract: When deciding which modes to offer, researchers consider cost, known respondent contact information, and potential mode effects. For a short survey on employment, we evaluate the effect of adding one of two new electronic data collection modes to a mailed questionnaire. We sent a survey to principals who previously responded to the National Center for Education Statistics' (NCES) National Teacher and Principal Survey (NTPS) asking about their current job status. This questionnaire, known as the Principal Follow-up Survey (PFS), has typically been administered as a short paper form that is mailed to NTPS respondents. In 2022, the PFS introduced two new modes of completion, and principals were randomly assigned to receive: (i) a paper form only; (ii) a paper form, as well as emails with a direct link to complete a web survey; or (iii) a paper form, as well as invitations by text message to complete an automated two-way short message service text survey by responding to texted "yes/no" questions. This article compares overall response rates and time-to-response by mode to determine respondent preferences for completing short surveys. Adding either electronic mode significantly increased response rates and decreased the number of days in which completed surveys were received, compared to offering only a paper questionnaire. Although email and text messages are both forms of electronic communication that may be accessible on a smartphone, the added text message survey resulted in higher response rates than the added web survey. This suggests that respondents interact differently with emails and text messages they receive and that offering an option to complete a survey by text message can increase the speed and efficiency of data collection for short surveys.

- Soszynski, Michael, and Ryan Bliss. 2023. "Demographic and Measurement Differences between Text-to-Web and Phone Survey Respondents." *Survey Practice*, 16(1). <https://doi.org/10.29115/SP-2023-0012>.

Abstract: This paper builds on existing literature on survey mode effects. We explore the relationship between administration mode and demographics as well as measurement issues. Participants in a low-income home weatherization program were assigned to either a phone call or text-to-web survey administration group. Our findings appear to be consistent with previous research regarding both non-observation and observation effects to varying extents. In terms of non-observation mode effects, we found that text-to-web and phone group survey respondents had similar demographic and home characteristics. The two survey methods yielded similar response rates and minimal statistically significant differences between respondents' reported background characteristics. We found a larger portion of phone respondents chose "Prefer not to say" for some demographic questions and generally indicated higher satisfaction than text-to-web respondents.

- West, Brady T., Dirgha Ghimire, and William G. Axinn. 2015. "Evaluating a Modular Design Approach to Collecting Survey Data Using Text Messages." *Survey Research Methods*, 9(2): 111-123. <https://ojs.ub.uni-konstanz.de/srm/article/view/6135>

Abstract: This article presents analyses of data from a pilot study in Nepal that was designed to provide an initial examination of the errors and costs associated with an innovative methodology for survey data collection. We embedded a randomized experiment within a long-standing panel survey, collecting data on a small number of items with varying sensitivity from a probability sample of 450 young Nepalese adults. Survey items ranged from simple demographics to indicators of substance abuse and mental health problems. Sampled adults were randomly assigned to one of three different modes of data collection: 1) a standard one-time telephone interview, 2) a "single sitting" back-and-forth interview with an interviewer using text messaging, and 3) an interview using text messages within a modular design framework (which generally involves breaking the survey response task into distinct parts over a short period of time). Respondents in the modular group were asked to respond (via text message exchanges with an interviewer) to only one question on a given day, rather than complete the entire survey. Both bivariate and multivariate analyses demonstrate that the two text messaging modes increased the probability of disclosing sensitive information relative to the telephone mode, and that respondents in the modular design group, while responding less frequently, found the survey to be significantly easier. Further, those who responded in the modular group were not unique in terms of available covariates, suggesting that the reduced item response rates only introduced limited nonresponse bias. Future research should consider enhancing this methodology, applying it with other modes of data collection (e.g., web surveys), and continuously evaluating its effectiveness from a total survey error perspective.

Additional Resources

This guide was prepared by members of an AAPOR ad hoc subcommittee that was assembled to investigate and address concerns about barriers to text messaging for research purposes. We contacted the CTIA and advocated on behalf of AAPOR. We also wrote and submitted a formal FCC comment about text messaging.³⁶ Then, we prepared this document to share what we learned along the way.

Members of the ad hoc subcommittee on texting currently include Neha Sahgal (Pew Research Center, subcommittee leader), Jennifer Benz (NORC), Kevin Collins (Survey 160), James Dayton (ICF), Ned English (NORC), Kate Hobson (NORC), Jennifer Hunter-Childs (US Census Bureau), Cameron McPhee (SSRS), Brenna Muldavin (RTI International), Angelique Uglow (ReconMR), and Andy Weiss (Mathematica).

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³⁶ AAPOR (2023) *In the Matter of Targeting and Eliminating Unlawful Text Messages & Rules and Regulations Implementing the Telephone Consumer Protection Act of 1991: Comments of the American Association for Public Opinion Research*. CG Docket No. 21-402 & CG Docket No. 02-278, <https://www.fcc.gov/ecfs/search/search-filings/filing/10502034945408>.