



United States  
Department of  
Agriculture



National  
Agricultural  
Statistics  
Service

# **“May I email you a survey reminder?” A Thematic Analysis of Respondent Viewpoints of Emailed Survey Reminders**

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RDD Research Report Number  
RDD-24-03

May 2023

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“May I email you a survey reminder?”

## A Thematic Analysis of Respondent Viewpoints of Emailed Survey Reminders

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Adopting survey reminder emails to increase respondent engagement and participation is a relatively new component to agricultural establishment surveys. As part of National Agricultural Statistical Service’s (NASS) data collection modernization efforts, NASS is working on improving its communications by incorporating electronic options, such as email, to provide survey reminders and notifications with links that will facilitate easier access to NASS web surveys. Current research on reminders focused on emails as survey reminders often examines the effect of multiple reminders on response rates but have yet to examine respondents’ viewpoints on receiving email reminders. To address this research gap, the National Agricultural Statistics Service conducted semi-structured interviews with 24 respondents who participated in the Census of Agriculture web test. This study utilized thematic analysis on interview data acquired, to develop themes surrounding the respondent viewpoints and experience with email survey reminders. We found four key concepts that impact whether a respondent is open to receiving an emailed survey reminder: (i) Trying to connect, (ii) My farm is my business, (iii) I know what y’all want, and (iv) It’s just convenient. Understanding respondents’ experiences and interactions with electronics communications like email inform NASS on how to improve its program and process for sending out survey reminders via email. We discuss the implications of respondents’ use of electronic communications for emailing survey prenotifications, reminders, and completion.

### **I. INTRODUCTION**

Email reminders have become an integral part of everyday life. You may receive a reminder for a medical appointment, work meetings or scheduling personal appointments. Reminders are an effective way to motivate the receiver to complete a task. In establishment surveys, we often look for new ways to communicate with respondents to increase participation rates, especially in web surveys. Email reminders specifically offer one way to efficiently contact farm and agricultural establishments that are likely to have other priorities. In the case of farm and agricultural establishments, respondents are accustomed to receiving National Agricultural Statistics Service (NASS) surveys in the mail but may not be in a place to fill out the questionnaire. The use of email communications could potentially circumvent this problem by both reminding respondents about the survey project and providing a direct link to the

questionnaire form. Given the rise in electronic communications use in survey projects (Cook et al 2016), we chose to study the ways respondents utilize these technologies (or not) and their stated reasons for doing so.

The literature informs us that the contextual differences may be a key factor in whether and how survey participants respond, which in turn compels survey administrators to think strategically about their contact modes. For example, a study comparing respondents in two different countries found that mailed reminders performed well on a general practitioner physician survey (1999). Building on this study was another (Porter and Whitcomb 2007) comparing paper mailings and email contacts where researchers found the former slightly outperformed the latter. These findings cast some doubt on the use of email reminders for surveys, but it is important to note that the use of electronic communications has intensified in the years since the publication of those studies.

Bosnjak et. Al. (2008) tested whether prenotification emails combined with texting would improve response rates compared to Short Message Service (SMS) and no prenotification. They found that the email prenotification did not improve the response rate significantly compared to no prenotification. They also compared email survey invitations and text invitations, finding that the former yielded better response rates because using the URL on desktop or laptop was relatively more accessible than a mobile device. However, it is unclear whether improved accessibility through electronic communications could have contributed to greater incidences of respondents closing out of the survey before completing all question items. The impacts of moving toward surveying using electronic communication technology raises other questions about the unintended consequences of these newer contact strategies.

In recent years, mobile and web-based technologies have been deployed as a core surveying technology making these forms of communications more ubiquitous. Goritz and Crutzen (2012) found that email reminders in web-based data collection increased response rates in online panel surveys. Similarly, Millar and Dillman, (2011) designed an experiment with internet users they believed to be “highly Web literate” arguing in favor of using multiple modes of contact with mail followed by email. Their reasoning was predicated on the belief that “augmenting multiple postal contacts” with email reminders capitalizes on the advantages of both. These studies illustrate the effectiveness of electronic communication with survey respondents, which is increasingly common in survey data collection. However, it remains to be seen whether this will also be the case for NASS surveys.

This paper presents research findings from farmer interviews to understand what role email reminders could play in improving NASS’s survey procedures. The study’s aim is to improve NASS’s contact strategies and explore how farming populations use electronic communications, such as email. How these populations use email as a part of their farming operations and general business communications are explored for the purpose of informing future NASS survey projects and processes.

## **II. METHODS**

### **Participants**

For this study, a subsample of respondents to the 2021 Census Web Test was selected. An email reminder was sent to the selected operations with an embedded link to the Census web survey for easier access. At the end of the web test, a brief questionnaire was included to gather feedback from respondents on the email reminder. Of the 97 respondents contacted, 24 agreed to an interview.

### **Procedure**

We adopted a descriptive qualitative design using semi-structured interviews. Semi-structured interviews allow participants to provide in-depth information around semi-structured interview questions (Corbin 2008). Semi-structured interviews use some structured questions within the interview, but also provide the respondent the opportunity for additional probes that can provide us with additional unexpected information (Corbin 2008).

Semi-structured, telephone interviews were performed with 24 participants. The structured portion of the interview gathered information on the daily experiences of farmers and their use of emails as well as how much they are connected to technological devices. Participants were informed in the beginning of the interview that the intent was to have a better understanding of their experience with receiving an email survey reminder. Additional probe questions were provided to participants who provided additional details or experiences that required follow-up (see Table 1 for the questions asked during the interviews).

## **III. DATA ANALYSIS**

To address the research gap that examines farmers' viewpoints on receiving email survey reminders, an inductive thematic analysis approach was used. This data-driven approach allowed the relationships among farmers, email use, and NASS products to be examined. The data were analyzed using thematic analysis in the phases as described by Braun and Clarke. (Clarke et al 2020) The interviews were transcribed and validated by two methodologists who interviewed the participating farmers. The data analysis used inductive coding to develop the themes from the patterns of data (Daly, Kellehear, & Gliksman, 1997). The interviewers read the interview transcripts and separately developed codes that were later 'grouped' into themes. After a review of the set of themes, the themes were then consolidated from 8 themes to 4 broad themes that represent the farmers email experiences. Cohen's kappa was 0.89, which indicated there was a good inter-rater reliability (McHugh, 2012)/ For this study, direct quotes were used to document and illustrate the themes where appropriate. The analysis was conducted used the software NVIVO version 10 (QSR International, Melbourne, Australia).

## IV. RESULTS

Farmers responses were analytically coded into four broad themes: (1) Trying to Connect describes farmers use of electronic communications in daily business activities (2) My Farm is My Business is an exploration of how business practices can change over time (3) I Know What Y'all Want explores farmers emotional perspectives of NASS products (4) It's Just Convenient illustrates how farmers want to participate in the survey process.

### **Theme 1: Trying to connect.**

Understanding the process of how and how often, farmers communicate electronically for their business is the theme of *trying to connect*. Farmers discussed how they use email, text, both, or neither to communicate when conducting business with clients or other companies. In general, farmers used email to communicate how business activities like farm production planning or the purchase of product for the business would take place. The farmers provided examples of how they used electronic communication as a daily process, such as "I interact with the elevator, all electronic receipts. I watch the crops reports and you know follow grain prices through the internet." Although email was the most popular choice of electronic communication, several farmers used other types of electronic communication, such as faxes or texting. Farmers who favored texting did use this form of communication as a business function either to communicate with staff or with buyers. The farmers that used texting to communicate would combine texting and appearing in person or texting and calling. One farmer expressed they did not like using any form of electronic communication: "I'm not big on computers." Instead, he sends paper forms or other correspondence types in the mail. Some farmers expressed the use of technological devices throughout the day, such as smartphone, laptop, or desktop computer. Often, those who use smartphones would use them for reading emails and making calls, but not necessarily for writing emails. Farmers expressed using desktop computers or laptops would often include these devices when explaining how they use or access emails.

When asked how they think of themselves as email users, the farmers would describe themselves as an email organizer, deleter of email, or a frequent reader of emails. An email organizer email user is one who receives an email and has developed a process to address the email received. Farmers who could be placed into a deleter of email group do not read emails or process any emails received. They generally describe frustration with receiving a lot of emails that are either marketing or what they would consider "junk" emails. A frequent reader of email user is a farmer who will read every email received and decide whether the email is worth keeping. The difference between a reader of emails and an email organizer is that the reader does not have a detailed process, such as filtering and filing emails into organized folders.

### **Theme 2: My farm is my business.**

The theme *my farm is my business* explores the farmers choice to use selected electronic communications and how the daily use of that technology can influence their preference to email reminders. Farmers described how the evolving use of digital technologies has led to increased

communicating with mobile short messaging service (SMS) and email. No singular electronic communication was endorsed by all farmers. If farmers described daily use of technology, it often influenced their preference to email reminders. This reflects the diversity of experiences, needs and objectives within the farming community. Farmers described the choice to receive reminders that aligned with their daily business processes. The way farmers talked about their preference of survey reminders either by mail or email also revealed a range of preferences from insignificant to extremely helpful. Farmers generally preferred either paper, email, or both as a survey reminder. When asked whether email reminders were helpful, farmers responded positively and negatively. With respect to the former, farmers remarked on the relative ease and convenience of electronic communications. Specifically, one stated “I get them, and I will follow up... and those (emails) have a link on there and [the] site pops up and it’s pretty handy.” Alternatively, some farmers expressed viewing email technology as being particularly difficult with another noting how they “never know who the message is coming from.” Still another farmer appeared resigned to the increasing use of electronic communications even if they ultimately viewed receiving email survey reminders as helpful.

Most farmers stated that signing up for an email reminder to complete a survey would be a positive action, when it is available to them. They relayed receiving an email reminder would be helpful for instances where a paper reminder may have been overlooked due to a period of intense farming activity and could simply be resolved by opening an email and following the prompts. Other farmers said they would sign up for email reminders but there would not be a direct impact on the process of completing a questionnaire or ease of use. The farmers who would not be directly impacted by signing up or receiving an email reminder most often would use paper questionnaire and preferred paper or neither form of reminders.

Several farmers who stated they preferred completing a questionnaire using web response would also sign up for email reminders. One of the farmers who affirmed they would sign up for reminders stated “it’s just another way to remind me.” Others said it was convenient to receive a questionnaire that can be completed immediately. Two farmers did prefer to complete paper questionnaires but for different reasons. One farmer preferred a paper questionnaire because he can focus more on the information. He stated, “what if I make a mistake?” when referring to the web response and relayed that he felt it was difficult to fix mistakes made during web response. The other farmer chooses to use a paper questionnaire because he finds the paper reminder and questionnaire easier to use. He said “well, I get busy and I need something to remind me that I can physically put something, and it doesn’t get lost in the shuffle. Something physically there helps me and my memory to do whatever survey.” The farmer was asked if he could sign up for email reminders and he said “probably not. Like I said, I get so much clutter in the email, and I get fed up with it and remove all of them, so they won’t pile up.” One farmer did state they used a paper questionnaire to complete the web response. Unlike the other farmers who were interviewed he uses the paper questionnaire received by mail to aid web response.

### **Theme 3: I know what y’all want.**

The theme *I know what y’all want* captures the positive and negative attitude farmers exhibit specifically with respect to being contacted by NASS either by email, text, mail, or phone. Throughout the course of a year, a farmer may receive requests to complete a questionnaire

related to a commodity they produce, store, or sell to market. Their experiences receiving and completing those questionnaires were coded “NASS user experience” in instances where farmers described actions, they took upon receiving any NASS communication. In these accounts, farmers described negative and positive experiences with using NASS survey requests, but most experiences relayed how they felt the process of receiving reminders was disjointed. In most situations described, farmers will first receive a paper reminder and then a phone call requesting them to complete the questionnaire.

A few respondents made negative comments about NASS survey requests in general. One lamented the lack of time, and another described their dislike for questionnaire content that was not specific enough for them to answer. This mismatch between the operation and questionnaire content was echoed by another respondent who viewed questions about “rentals and the like” as not applicable to their family farm operation. With respect to reminders, one respondent remembered receiving the email without the code and suggested a way to mitigate to improve the convenience of email communications for survey completion. Farmers often conveyed frustration after filling out a questionnaire and still receiving a follow-up contact on the questionnaire they already submitted (often by mail). In reference to why they fill out questionnaires, one farmer stated, “I know if I don’t complete them in the mail, then I will start getting phone calls.” Another farmer said “...mail about doing the survey and I get phone calls and then I get another piece of mail. I’m also (starting) refusing to take them if they keep adding to them.” Overall, the experience with completing the questionnaire becomes a negative experience with a NASS product because of the quick turnaround of follow-up calls to the farmer. Only one farmer felt follow-up calls were a positive experience and stated it was “because I would forget to fill them out.”

Conversely, some farmers found reminders helpful, web forms convenient, and questionnaires straightforward. This suggests that, if farmers felt less burdened or overwhelmed by NASS communications, then their overall experience receiving survey questionnaires might be improved. For example, one farmer did have issues with the link embedded in the emailed survey reminder and called for assistance. He relayed the help desk was able to assist him with his issue and he was able to complete the survey. The farmer did mention that it was beneficial to have a help desk number to assist with any technical issues he experienced. The embedded link requiring a code appeared to be the most recalled content from the email reminder that respondents noticed and could be a source for reducing unnecessary contacts with producers. Still, a few respondents stated that having a physical reminder, either in the form of the questionnaire or a reminder, was helpful so the survey “doesn’t get lost in the shuffle” or neglected on account of being “too busy.”

#### **Theme 4: It’s just convenient.**

Theme 4, *It’s just convenient*, illustrates the reasoning behind farmers’ use of electronic technologies to communicate with NASS. Additionally, business communications with fellow producer cooperative members, banking institutions, and the local “elevator” were all named as reasons for using electronic communications by some farmers. Other farmers explained that the

email reminders would be yet another way of ensuring they filled out the questionnaire, although two specifically mentioned that they could not rely on mail service in their current locations. Although some farmers viewed “reminders” of both kinds as helpful, it is important to note farmers reiterated this when asked why they would sign up for email reminders. Many respondents noted not being in a position to fill out the survey when they receive reminders with one stating “most of the time it sits on the table because I got done doing a phone survey and I get tired of doing them [surveys].” Another, remarked “blind as a bat on the tractor... I usually do the answering on the desktop in the office.” The convenient logistics of completing survey forms online through email reminder is among the primary reasons found for communicating through electronic technology among farmers.

## V. DISCUSSION

In this article we analyzed the role that electronic communication plays in their farm operation along with their willingness, ability, and general experience using it to complete NASS surveys. Our findings indicate that farmers experience NASS’s electronic communications differently because their use of electronic technologies vary widely with some favoring them and others not so much. Increased use of electronic communications over time may shift farmer preference for electronic communications when compared with postal mailings; however, care should be taken not to interpret changes in farmer communication preference as embracing the technologies required to implement them. The design, frequency, and content all factor into whether farmers choose to respond, and their familiarity with electronic media in other aspects of their farm business is likely to shape their attitudes regarding those factors. For instance, many in this study viewed the email reminders with embedded survey links as convenient and helpful rather than burdensome and time-consuming. If NASS can continue making changes such as these then it stands to reason that respondents will receive electronic communications contacts more favorably than implementing communication strategies that respondents view as time-consuming and annoying.

The themes above illustrate that farm business convenience is a keyway to ensure attempts to connect with farmers on survey projects are positive experiences for respondents. Theme one, *trying to connect*, gives a better sense of the complex nature of connecting with farmers as they move between electronic and paper mailing to complete survey forms. Theme two, *my farm is my business*, echoed much of theme one’s emphasis on connectivity but delved further into how the task of filling out and submitting survey forms intermixed with other business communications. Theme three, *I know what y’all want*, revealed farmers familiarity with NASS surveys and a general feeling of disapproval with communications. Theme four, *it’s just convenient*, showed convenience as a primary reason for using electronic communications to report surveys. Taken together, it appears as though the effectiveness and impact of electronic communications resemble past inquiries into the topic. In other words, farmers and ranchers are not very different from other surveyed populations.

Other issues for consideration include exploring further the frequency and timing of reminder contacts as well as studying how respondents process communications content. These two issues



came up in some of the interviews with respondents, but they were outside the scope of this study. Whereas this study observed farmer perceptions, preferences, and experiences with email reminders, these issues require researchers to look at contact rates and to observe how email recipients cognitively process emailed information. Such studies could help reduce survey costs and improve response rates.

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## **INTERVIEW QUESTIONS**

### **Section 1 – Communication Technology (All)**

Does your operation use communication technology like emails to conduct business? Describe to me how your operation uses emails on a daily basis.

What type of internet service do you use? (If respondent uses or mentions high speed internet probe to find out why)

Do you mind telling me what email service do you use most often?

On a normal day what device(s) do you use to access emails?

### **Section 2 – General (All)**

How do you typically receive survey reminders from NASS?

How are these reminders helpful or not to you? (Probe to see if reminder mode matches survey response mode – is this also how you fill out your survey?)

Why is (stated preferred mode) your preferred way to receive reminders? Why not (the alternative)?

How come? What device do you use to access emails?

[Confirm that they in opened or didn't open email, and then proceed to appropriate probes] - Did you open the survey reminder email? Why?

#### **\*\*\*Section 2 – Opened**

Did you have any problems opening the email when you received it? Is the device you used to open it the same as the one you noticed receiving it (Did you notice it on your phone but open it on your computer)?

Do you remember anything particular about the email that you found interesting?

Do you remember seeing any links in the email that you received? If so, did you click on the link? Why or why not?

If you received an email survey reminder, describe to me your steps afterward.

#### **\*\*\*Section 3 – Didn't Open**

Do you remember ever receiving an email from NASS reminding you to complete [Census Web Test]? How come? Is this typical? Explain

If you received the email, did it help remind you to fill out the survey? How?

### **Section 4 – Close Out (All)**

Would you sign up for email survey reminders if you were given the option? If yes, why? If no, why?

How do you generally complete NASS surveys? What is your preferred mode? (paper, web, phone, etc.)

Is there anything else you want to share about your email experience?