Annual Integrated Economic Survey Pilot: Phase II Preliminary Findings and Recommendations

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Say hi and thank Heidi.

Today we are rolling out the findings and recommendations from Phase II of the AIES Pilot. There's a lot to cover, so please hold your questions until the end of my prepared remarks, and then we will have time for further conversation. Let's jump right in…

AIES Pilot Overview

Phase I: "The 78" Pilot 2022

- Goal: Understand response processes and further instrument refining
- Qualtrics instrument, 78 companies

Phase II: Response Spreadsheet Pilot 2023

- Goal: Induce independent response
- Response spreadsheet, about 900 companies

Phase III: Dress Rehearsal

- Goal: Troubleshooting and infrastructure building
- Centurion instrument, about 8,000 companies

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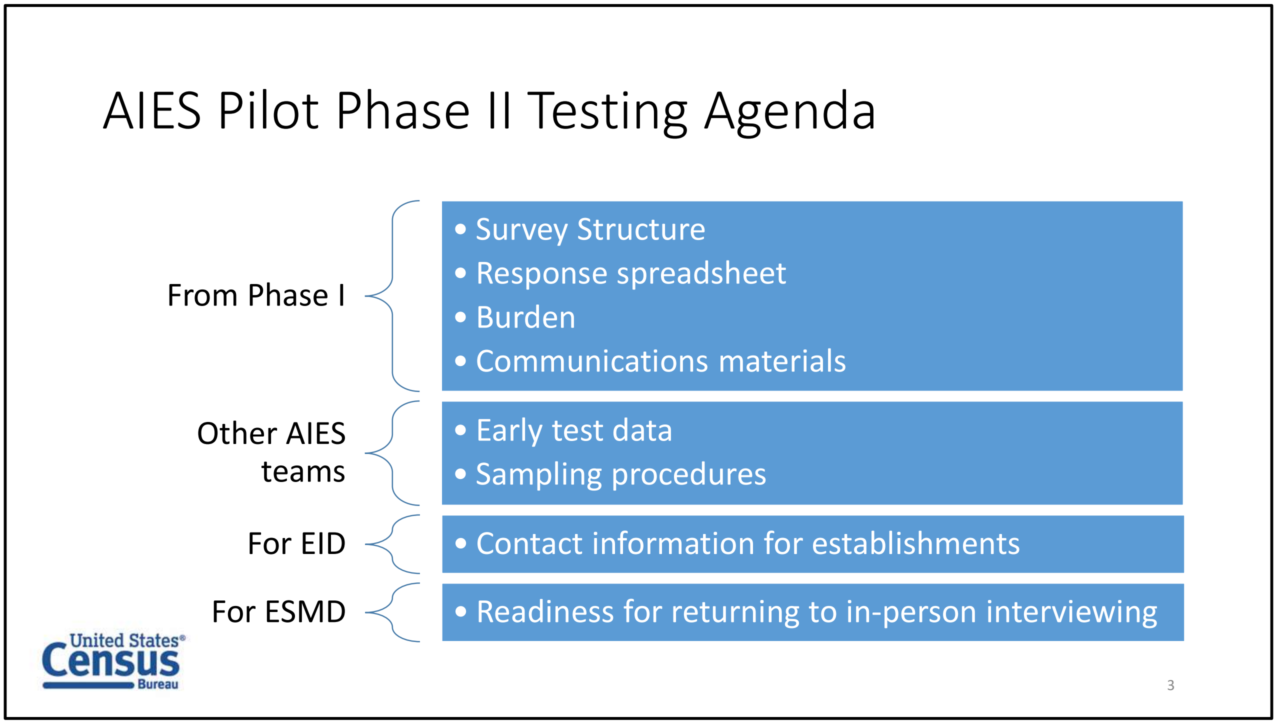
Today we are talking about the findings and recommendations for Phase II of the AIES Pilot. Phase I was last year and was 78 total companies. Phase III is also known as the "Dress Rehearsal," is scheduled for the late summer, and is about 8,000 companies. Today, we are only looking at Phase II of the Pilot, which we conducted in the early spring of this year.

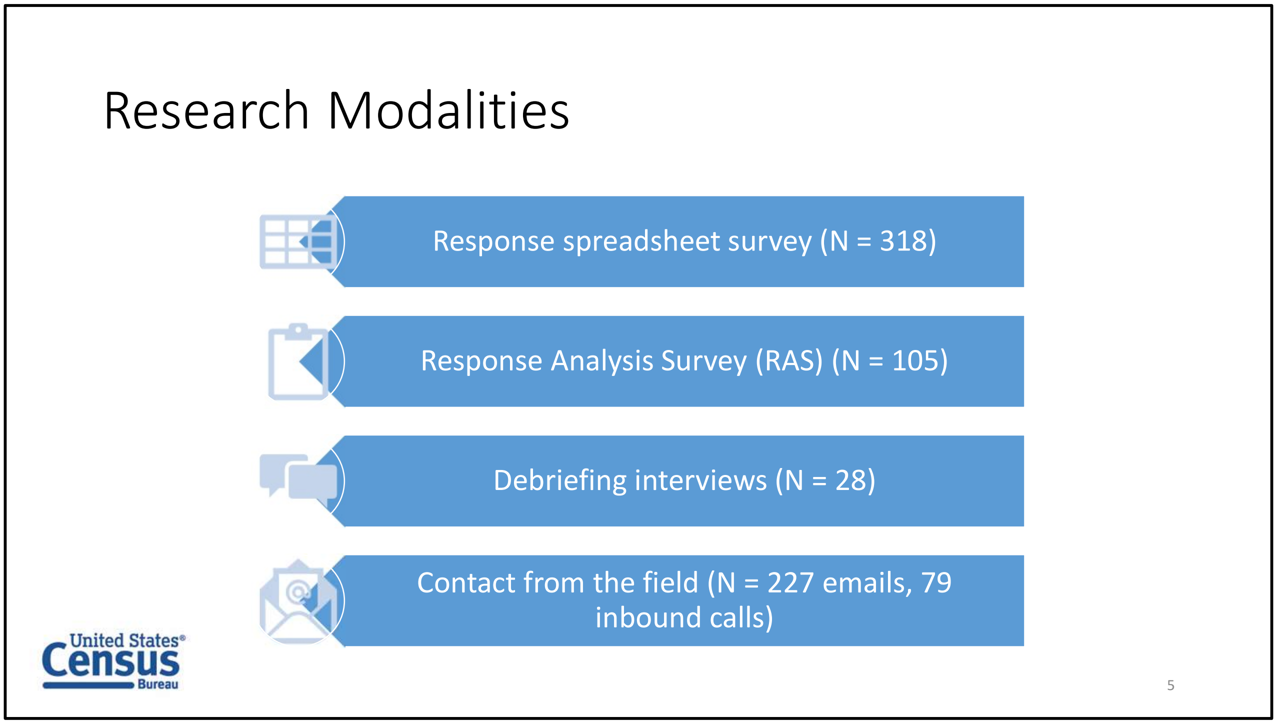


The Phase II Pilot is specifically designed to answer questions left from Phase I of the Pilot. But we also used the Pilot to test other emerging aspects of AIES like providing test data and refining sampling procedures. We also had two additional research questions embedded in the design: one for EID looking at establishment-level contact information, and one for ESMD looking at readiness for return to in-person interviewing. The presentation today will only be covering the questions left over from Phase I.

Phase I Finding	Phase II Goal
Most companies responded by page-by-page method at the company-level, and most companies responded by uploadable spreadsheet at the establishment and industry levels.	• Get feedback on the new structure – 3 step response process
Summing to the total works for some – but not all – companies, and that sum needs to be included as a check when asking for sub-company data.	
Duplication of content caused by multiple response units in one survey.	Test key elements of the spreadsheet design: • Holistic unit listing • Units summing to reduce burden • Color coding content
Respondents want content organized by topic, and a direct and clear submission process.	
Respondents like respond-by-spreadsheet, but it must take a holistic approach to the company.	
Reports on the amount of time to complete relative to the current annual surveys are mixed.	Gain additional information about response burden
We will continue to have unit errors in the integrated survey, but we can mitigate with flexibility and clear communication.	Develop respondent communications

This table has the findings from the Phase I Pilot, and the Phase II goal that comes from the finding. I'm not going to rehash the findings from Phase I. Rather, we included this table to demonstrate how the Phase II Pilot research goals were developed coming out of the Phase I findings. The first goal was to test a survey structure where respondents provide data at the company level page-by-page, and at the establishment and industry level by spreadsheet. Unfortunately, we could not test this structure in the pilot, but look forward to upcoming opportunities to test this new structure in the future.

Instead, we turn our attention to the remaining three topics for today. The first is testing the performance of the response spreadsheet. The second is to learn more about burden. The third is to develop respondent communications.



On screen now are the research modalities that we used for Phase II. This includes a response spreadsheet survey with all of the integrated content, a Response Analysis Survey of respondents focused on burden, debriefing interviews, and cataloguing all respondent interactions. These are the same methods we used in Phase I of the Pilot, too.

You’ll see results from these efforts all through this presentation.

Instrument

Respondent portal

- ID and password
- FAQs and instructions
- Download spreadsheet
- Upload spreadsheet

Bespoke response spreadsheet

- Tabs:
  - Overview
  - Company
  - Survey
  - Add Locations
  - Products*
  - Instructions
- Customized listings

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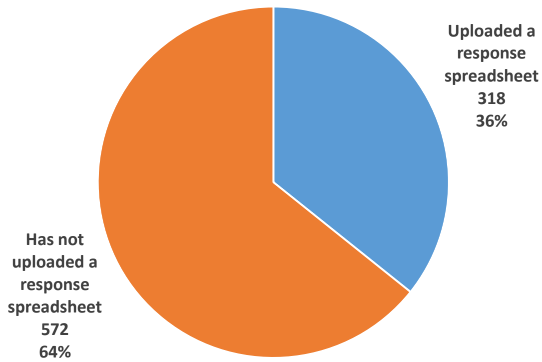
Because of timing and resource constraints, the instrument for the Pilot was a response spreadsheet. Respondents logged into a basic portal using an ID and password that we sent by mail and email. There were FAQs and instructions they could access, but mostly the portal was for downloading the response spreadsheet and then uploading it back to us when they were done. Each company had a customized 'bespoke' response spreadsheet that included an overview tab, a tab for reporting at the company level, one for the establishment and industry level, a tab for adding additional locations, a tab for products, but only if it is a manufacturing company, and a tab with additional question by question instructions. These spreadsheets featured customized establishment and industry listings.

Pilot Phase II Respondents

Response Status as of 04/17/2023



Of uploaded spreadsheets as of 04/17/2023 (N = 318)		
	N	**Percent**
Single Unit	108	34.0%
Multi Unit	210	66.0
SU not supported	108	34.0
MU not supported	85	26.7
FSAM or EC Am	29	9.1
Not FSAM or EC AM, but still supported	96	30.1
Manufacturing	25	7.9
Non-manufacturing	293	92.1

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In total, we had 890 units that received the full pilot research protocol. We launched on February 22, 2023. We are still getting pilot response, but our cut-off day for this presentation is April 17, 2023. As of April 17, 2023, a respondent uploaded an Excel file for 318 units in our study, representing 36 percent of those who remained in the study. Of those that uploaded a file, 34 percent are single units and 66 percent are multi units. In terms of support status, 39 percent of uploaded spreadsheets came from those companies assigned response support, either as an EC or full service account manager or as other response support. And, 25 of the uploaded spreadsheets came from companies we flagged as having at least one establishment classified in a six digit NAICS code in the manufacturing sector.

I just want to pause here and note that we use a cut off date for this presentation of April 17, but we have continued to collect data after that date. In fact, as of August 11 – this past Friday – we had received 503 uploaded spreadsheets, representing a 58 percent response rate. However, for the remainder of this presentation, we will consider only the 318 response spreadsheets uploaded on or before April 17.

Methodological Limitations

Instrument Limitations	Analytic Limitations	Field Limitations
• No response portal • Limited content checks; easily circumnavigated • Approximation of production	• Data frozen as of April 17, 2023 • No processing systems in place • Instrument performance focus	• Crowded survey landscape – ran concurrent with EC and other surveys

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Let me pause here and lay out some of the methodological limitations to consider as we move toward findings and recommendations.

We note some instrument limitations that impact our findings. The first is that the pilot was fielded without using the typical respondent portal – that meant that functionality found in that portal like secure messaging, extension requests, and delegation, were not available to pilot respondents. We have no way of knowing how that may have impacted response patterns and behaviors. Similarly, while the response spreadsheet had some content checks built in, these checks were easily circumnavigated by respondents. We have evidence of respondents ‘unlocking’ the spreadsheet and entering data wherever they pleased. This leads to the most important instrument limitation – the response spreadsheet is an approximation of what the production instrument could look like – because of that, we have no way of knowing the performance of the actual production instrument. Instead, the pilot is designed to test features that might or might not support response; these features can then be included where appropriate and feasible into the final instrument design.

We also acknowledge that we have some analytical limitations. Note that the data for this presentation were frozen as of April 17, 2023. Since then, responses have continued to come in – those later responders are not included in these analyses, and may represent types of companies that are systematically different than those that met the research deadline. At the same time, it is important to remember that the Pilot Phase II instrument was a spreadsheet that respondents downloaded, filled out, and then uploaded back into a simple portal. As such, the response data for this presentation have not gone through the usual processing systems that we use to clean our data in production. In fact, as we found anomalies in submission – like multiple submissions for a single company, or file naming convention changes in submissions – we had a team handle these data on a case-by-case basis, independent of any of our internal systems. We also want to note that the analyses presented today are focused on instrument performance. This limits the scope of what we will talk about today.

Finally, it is important to note that the AIES Pilot Phase II was run concurrently with the 2022 Economic Census, our flagship collection. We cannot overstate the impact that the Economic Census had on the survey landscape – respondents mentioned the EC in all aspects of the data we collected.

Test key elements of the spreadsheet design

Holistic unit listing
Units summing to reduce burden
Color-coded content

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Ok, now we will turn our attention to some of the new elements of the response spreadsheet to see how these changes performed. Specifically, Pilot used a holistic unit listing – all establishments in one list regardless of classification. We also included automatic summations throughout the response spreadsheet to minimize burden. And, we built in that color-coding to denote applicability and optionality at the unit level within the spreadsheet.

Holistic Listing Approach

Percentage of Completed Key Pilot Variables* Across All Modules by Phase of Collection		
Percentage complete	**Phase I (N = 78)**	**Phase II (N = 318)**
None	20.5%	3.4%
1 – 24.9	5.1	0.3
25 – 49.9	12.8	3.1
50 – 74.9	19.2	29.5
75 – 99.9	35.9	16.0
All	6.4	47.6

*Total payroll, total employment, first quarter employment, and total revenue.

- "I think overall, when I was done, I said yeah, this is going to work. **It's all in one place**." – Debrief
- "The fewer times you have to gather this information, **the better**." – Debrief

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First up, let's talk about the holistic listing approach in the pilot. Remember that our response spreadsheet represents one instrument collecting data at the company, establishment, and location level regardless of classification, and that this is a major change from the first phase.

We have some evidence that the holistic unit listing is improving response. On screen now is a comparison of the proportion of reported data for Phases I and II. To get these categories, I looked at four key variables – total payroll, total employment, first quarter employment, and total revenue – reported at the company level and at the establishment level. These are the four key variables we looked at in Phase I. If a respondent provided data for all four of these variables at both the company level and for all listed establishments, that company is said to have reported 100 percent, or all, of these variables. In Phase 1, 6.4 percent of all responding companies gave us data for all establishments and the company. For Phase II, when we introduced the holistic unit listing into one instrument, we saw that figure jump to 47.6 percent of respondents providing data for all four variables for the company and across all listed establishments.

Respondents indicated that having everything in one place was a benefit of the design;

in the first quote, the respondent notes that “it’s all in one place.” In the second, the respondent notes that “the fewer times you have to gather this information, the better”, again endorsing the streamlining of this instrument.

Finding #1: Holistic listing approach requires instrument flexibility.

- **Units don't always align:**

  "[I'm] trying to complete [the] survey by location, but as we have a single shared corporate office, a lot of our expenses (computer services, advertising, professional fees, software, data processing, G&A, etc.) **are not allocated on a location level but recorded as a corporate-wide expense**. Survey is asking for expense per location which is not possible..." – Email

- **Lists can be overwhelming:**

  "There was a ton of duplicates [in our establishment list], **350 lines for 50 locations**. Home office locations, we still filled out because they're legit from HR standpoint. Manufacturing questions didn't apply for those." - Debrief

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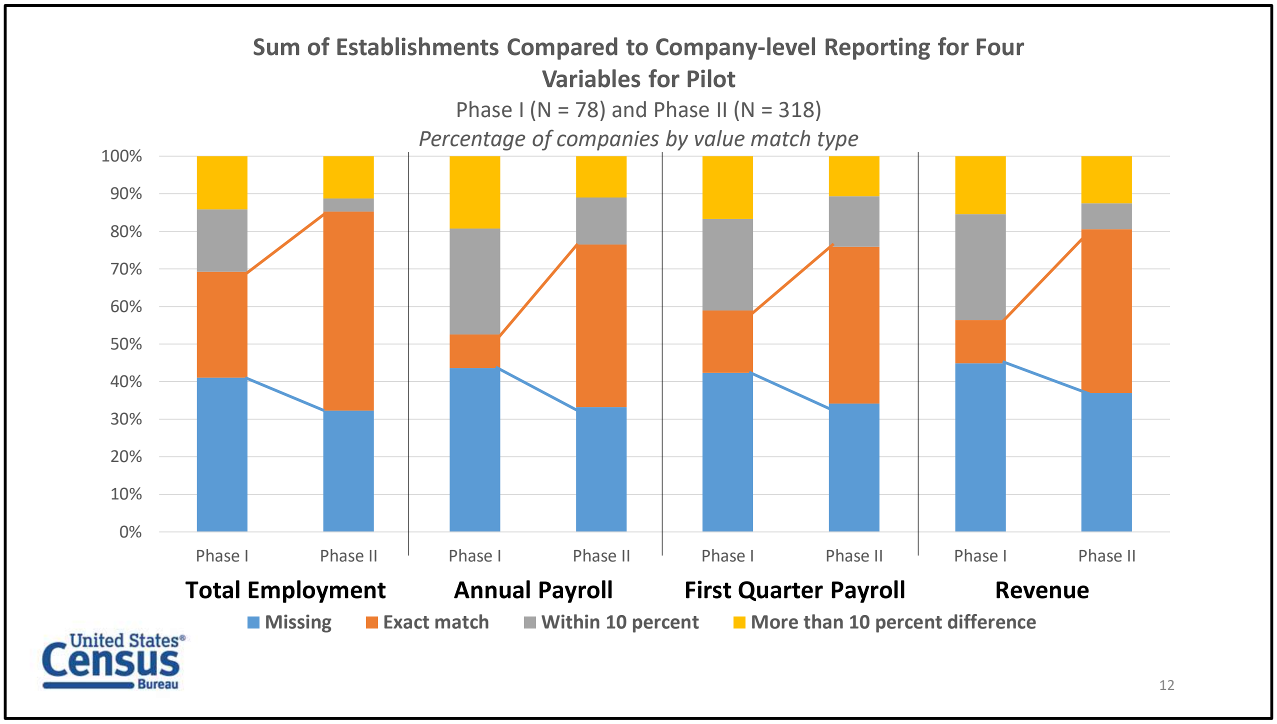
We note that units don't always align as expected however – in the first quote on screen, the respondent is pointing out that while we are asking questions by location or by industry, some of the data we are requesting "are not allocated on a location level but recorded as a corporate-wide expense," suggesting that respondents simply cannot provide the data at the granularity we are requesting.

At the same time, we note that the lists of establishments and industries can be overwhelming to respondents. Note the second quote where the respondent says that her response spreadsheet had "350 lines for 50 locations" – suggesting some duplication and misclassification – and that the 'manufacturing questions' don't apply to the 'home office locations', suggesting that some content was not applicable for some locations.

This brings us to our first finding: the holistic unit listing supports response, but only if the instrument is flexible enough to support updates to the establishment and industry listings. If we want to move forward with this design, we will need to continue to explore ways of increasing flexibility with unit listings.



One of the major findings from Phase I was that by asking the same questions at multiple levels, we were duplicating effort for respondents and increasing burden. For the Phase II pilot, we built in autosumming capabilities to try to not only lessen respondent burden, but also increase the agreement in response across these various units.

On screen now is the difference that methodology has made for each of the four key variables on the Pilot. For each one, we compared the sum of the listed and added establishments to the value reported at the company level, and then categorized that comparison into four categories: exact match means that the sum of establishments matches the value reported at the company level. Within 10 percent means that the sum of establishments and the company-level reported value is plus or minus ten percent of each other, and more than ten percent difference means that the sum of establishments and company report are different from each other by more than percent. Missing means that one or more data points is missing – this could be at the company level or at any of the reported or added establishments.

Looking across all four variables, (click) the proportion of 'missing' cases has declined, suggesting that in the Phase II Pilot respondents reported their data more completely than in Phase I. Likewise, across the two pilots, (click) the proportion of companies with exact matches has increased across all four of the key variables – the orange in the bar chart. Initial review of the data suggests that including the autosum feature has increased the proportion of data reported AND has increased the agreement in these data points across variables.

Finding #2: Autosumming supports response for multi-unit companies.

- **Some used it:**

  "It was helpful, like for payroll by site, I saw that it matched" - Debrief

- **Not everyone saw it:**

  "No, I did not [see the totals] until now. That definitely would be helpful for anyone who is doing it, you could see, [and ask yourself] does it make sense?" - Debrief

- **Exception: Single Units:**

  "I will be completely honest, the survey tab was pulling answers from the company tab since we only have one [location]. It was just autosumming. If there was something I was supposed to, I didn't do anything with autosum." - Debrief

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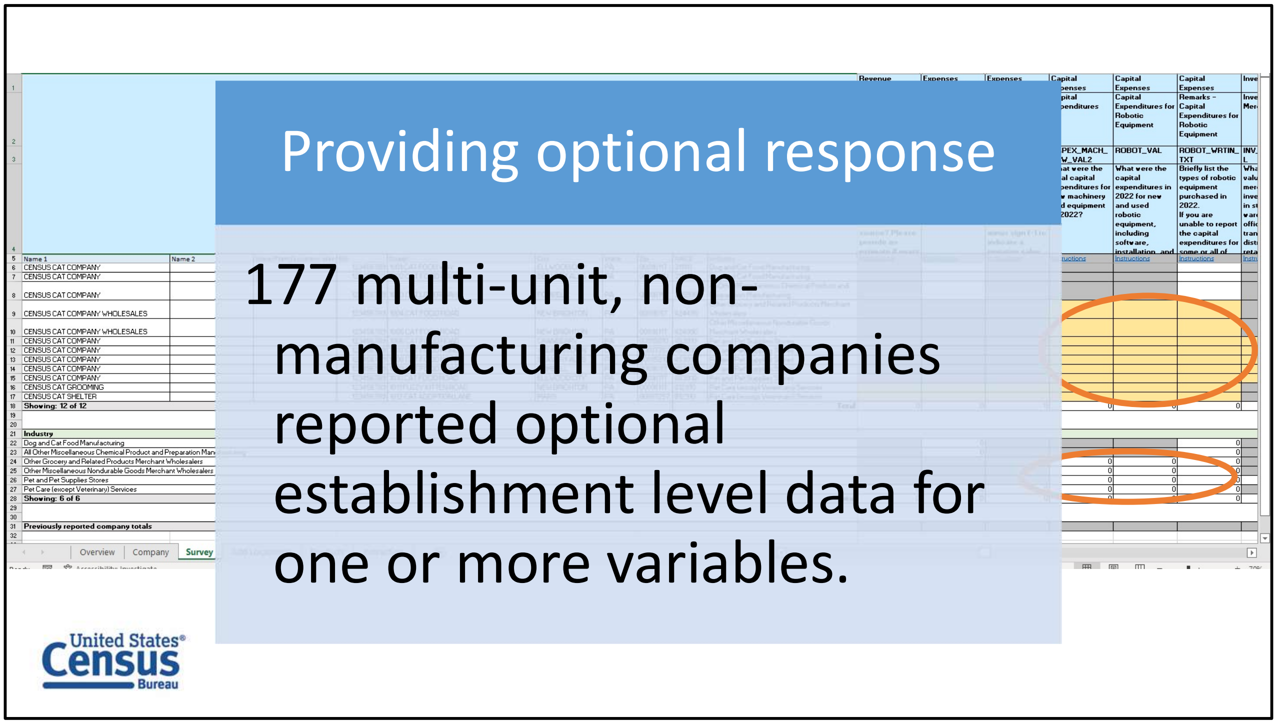
In fact, the qualitative data support the idea in finding number two: the summing functionality supports response for our multi-unit companies.

We present this finding with an important caveat: not everyone completely understood or saw the autosumming features. The first quote – that the autosumming was "helpful, like for payroll by site, I saw that it matched" – is an example of a respondent positively reacting to a feature that she is indicating that she used during response. In the second quote it's a little different: "No, I did not see the totals until now. That definitely would be helpful for anyone who is doing it, you could see, and ask yourself does it make sense?" Here, the respondent is still positively reacting to the feature, but he admits that he did not use this feature to aid in response because he did not see it or interact with it. We can say that for those who use it, they like it, and for those that don't, it doesn't hinder their response and they are open to the functionality.

I do want to take a moment to remind you that the Phase II Pilot was the first time we put AIES content in front of single units, and one thing we wondered was how would this instrument – designed with medium sized multi unit companies in mind – perform for our single unit companies. The quote on screen is pretty representative of what we heard in the field: "I will be completely honest, the survey tab was pulling answers from the company tab since we only have one location. It was just autosumming. If there was something I was supposed to do, I didn't do anything with autosum." The respondent acknowledges the interaction between the tabs in the workbook, and the autosum functionality, and even that these features are not necessarily useful for his company. These features do not hinder his response.



One of the features we introduced in the Pilot was optionality at the unit level. We heard in Phase I that some respondents wanted to report by establishment, and others wanted to report by industry. So, (click) we listed these questions as yellow – optional – at the establishment level and white – required- at the industry level.

(click)We have only just begun to dig into these data, but so far, we can say that 177 multi-unit, non-manufacturing companies reported optional establishment level data for one or more variables. These are data that would have usually be collected at the industry level, but were reported at the more granular establishment level because of the optional response color coding.

Finding #3: Optionality by unit supports response but needs additional consideration.

- Color-coding made sense:

"I understood the color coding and did refer back to the color tab once or twice." – Debrief

- Optional by unit vs. optional by question:

  "For the extra, I didn't need to fill out in terms of [the yellow cells]. So I didn't touch optional too much." – Debrief

  "Yellow meant "optional." You don't need the data, but I should include if I can find it." - Debrief

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This brings us to our third finding – providing flexibility in the unit of response is helpful for respondents, but we need to revisit how to communicate to this them. Note the first quote, where the respondent says that he "understood the color coding and did refer back to the color tab once or twice" while completing the survey. Many respondents told us that the color coding made sense and helped them to provide the data, and we have evidence that respondents are using the feature.

At the same time, quote two brings up an important nuance that is being lost on respondents: optional at the unit level vs. optional at the question level. Note in the first quote under the second heading, "for the extra, I didn't need to fill out in terms of [the yellow cells]. So I didn't touch optional too much." She's indicating that the yellow signaled to her that the question was optional, and so did not provide any data at all for those questions. This is echoed in the second quote where the respondent says that "yellow means optional. You don't need the data but I should include it if I find it." Again, the respondent interpreted the yellow to indicate optionality at the question level, not noticing the requirement to report at the industry level.

Recommendations: *Test key elements of the spreadsheet design*

Phase II Goal	Finding	Recommendation
Test key elements of the spreadsheet design		
Holistic unit listing	Holistic Listing Approach requires instrument flexibility.	• Include functionality to clean up establishment lists • Consider functionality to orient respondents within the spreadsheet
Units autosumming	Autosumming supports response for multi-unit companies.	• Retain and highlight this functionality as appropriate
Color coding	Optionality by unit supports response but needs additional consideration.	• Continue to explore ways of communicating optionality at the unit level.

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Here we are at our first set of recommendations. We wanted to test three elements of the Phase II response spreadsheet.

Looking at the holistic unit listing, we learned that the approach is working for companies, but that the implementation requires instrument flexibilities. We recommend moving into the next round of collection that the instrument include the ability for respondents to clean up their establishment lists. This will give them the opportunity to align the survey to the reality of their company. We also recommend some functionality for respondents to identify for which establishment they are entering data, whether that be to use color, highlight or bolding, or some other visual means of helping the respondent to orient themselves to the list.

We also tested the autosumming across units, and found that it is a useful tool for multiunit companies that use it, but that not all respondents saw it or understood it. We recommend retaining autosumming where appropriate, and developing additional support materials to draw respondents' attention to the functionality. This could be FAQs, walk throughs, splash screens, and others, or it could include other ways of orienting respondents to the units within the survey.

Finally, we looked at color-coding and optionality by unit. We noted that some respondents included data at the establishment level that would otherwise have been reported at the industry level, but that others saw the optional unit response as meaning optional at the question level and did not provide any response for the question at any unit of collection. We recommend retaining the optional respond by establishment, but exploring better ways of communicating optionality by unit not question.

Gain additional information about response burden

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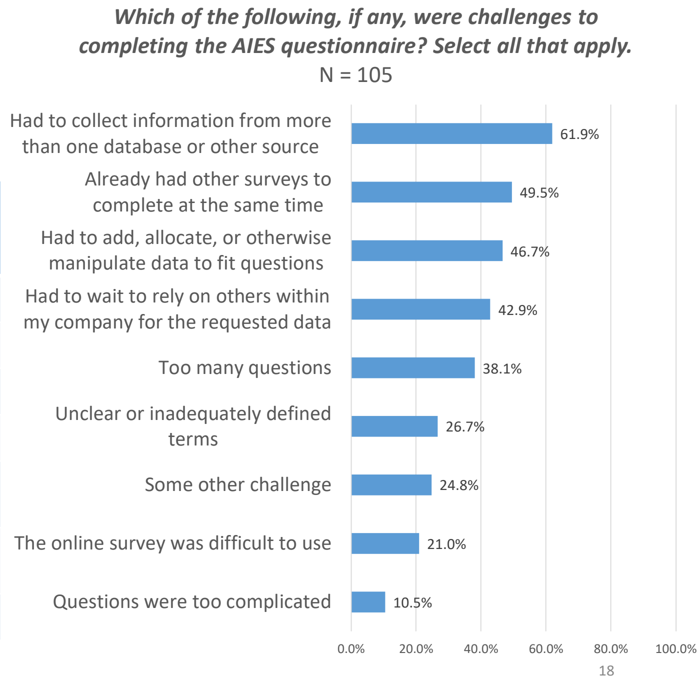
Alright, we have explored changes to the instrument design between Phase I and Phase II. One of the lingering questions from Phase I was a better sense of response burden. Let’s turn attention now to what we learned about burden…

Survey Structure: RAS

Overall, which of the following AIES questionnaire sections was most challenging to complete?		
	N	Percent
Establishment-level data	35	40.7%
Company-level data	22	25.6
Industry-level data	20	23.3
Additional establishments data	5	5.8
Establishment-level data for products (if applicable)	4	4.6
Total	86	100



On the Response Analysis Survey, we asked respondents to identify the MOST challenging section of the questionnaire. We note here that two in five respondents said the establishment-level data are the most challenging to complete – 40.7 percent.

We also asked respondents to identify challenges in completing the AIES questionnaire. Of the top four chosen responses, three of them related to accessing or manipulating the appropriate data to fit the survey request, including collecting information from more than one database or source; adding, allocating, or otherwise manipulating data to fit questions; and waiting on others within the company to report the requested data. This speaks to the varied content within the AIES instrument being housed across different data infrastructure at our companies, as well as instances where the specifications of our questions do not match the ways that companies keep their data.

We note that the second most commonly cited challenge to completing AIES is that respondents “already had other surveys to complete at the same time,” suggesting once again that the pilot’s concurrence with the Economic Census created a crowded survey landscape that may have overwhelmed respondents.

Finding #4: Content continues to be a challenge.

- **Too many questions, too many topics:**

  "Some of this we don't even have. Purchased electricity, for example. There's a lot of detail here." – Debrief

- **Ambiguous questions and instructions:**

  "We have a person tracks and does all the work for cap ex, some of the questions weren't straightforward and had to do some research." – Debrief

- **Non-numeric data and grids:**

  "When it asks for foreign ownership percent I cannot put 0. Our company has no foreign ownership, but the options start with at least 10 percent. How do I answer this question correctly?" - Email

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All of this evidence brings us to our fourth finding: Content continues to be a challenge for the AIES, and this is supported by our debriefing interviews. Some said there are just too many questions over all; others said that it was the types of questions over a bunch of different topics that posed a challenge to response. Others suggested that some questions and instructions are ambiguous and required additional attention. We also heard that questions with non-numeric responses did not perform well in the grid format – the third quote is a respondent struggling to answer both a non-numeric question and a question with a skip pattern in the grid format.

Perceived Burden

Compared to annual surveys you have answered in previous years, how easy or difficult did you find completing the AIES questionnaire?		
	N	**Percent**
Extremely difficult	12	12.6%
Somewhat difficult	33	34.7
Neither easy nor difficult	40	42.1
Somewhat easy	8	8.4
Extremely easy	2	2.1

Compared to annual surveys you have answered in previous years, how much time did it take to complete the AIES questionnaire?		
	N	**Percent**
Less time	9	9.5%
More time	48	50.5
About the same amount of time	38	40.0

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Remember that burden can be broken into two categories, actual and perceived. Actual burden is the time and resources it takes to complete the survey. Perceived burden is the respondents' affect or attitude toward the amount of time and resources it will take them to complete the survey. There is literature that suggests that BOTH actual and perceived burden are important factors in the decision to respond. There is also literature that suggests that respondents are themselves TERRIBLE at reporting both, actual and perceived burden. But, for the purposes of this study, all we really have is the respondent reported actual and perceived burden; it will have to serve as the best measure available of burden for the Pilot.

On screen now are response distributions to two questions on the RAS. First, we asked respondents relative to legacy annual surveys, how easy or difficult completing the pilot ended up being. Here we see that two in five RAS respondents – 42 percent – said that the pilot was neither easy nor difficult. Similarly, about the same proportion – 40 percent – said that the pilot took about the same amount of time to complete as the current annual surveys. However, we also note that 47 percent of respondents called the pilot "somewhat" or "extremely" difficult relative to the current annual surveys, and that half of RAS respondents (50.5 percent) said that the Pilot took more time to complete than the current annuals. This is similar to what we saw in the first phase of the pilot, and frustratingly inconclusive. We'll have to turn our attention to actual burden to see if we can identify patterns more clearly.

Actual Burden

Response Analysis Survey

Approximately how long did it take to complete the AIES questionnaire for this company, including time spent reviewing instructions and gathering the necessary data?		
	N	Percent
4 hours or less	51	58.6%
5 to 10 hours	15	17.2
11 to 30 hours	10	11.5
31 ore more hours	11	12.6
Did you require assistance from other people or departments to collect relevant information or complete answers to questions in any of the AIES questionnaire?		
Yes	65	67.7
No	31	32.3

AIES Pilot Instrument

Approximately how long did it take to complete this survey?		
	N	Percent
4 hours or less	125	59.5%
5 to 10 hours	40	19.1
11 to 30 hours	29	13.8
31 or more hours	16	7.6

Measures of Central Tendency by Source of Response		
	RAS	Response spreadsheet
Mean	14.2 hours	14.75 hours
Minimum	30 mins	20 mins
Maximum	200 hours	480 hours
N	87	210

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For the Phase II Pilot, we have two sources of estimates of actual burden. First, we asked for an estimate of actual burden on the RAS. But, we also included a column in the Company tab that asked for an estimate of actual burden. What we find is that the estimates of actual burden are fairly similar across the two collections – almost six in ten respondents estimate their burden at four hours or less on both the RAS and the response spreadsheet. On average, respondents reported taking a little more than 14 hours to complete the survey.

Additionally, about 2 in 3 respondents to the RAS indicated that they required assistance from other people or departments to collect relevant information or complete answers to the question in any of the AIES questionnaire.

Finding #5: Changing the survey is a source of burden.

- **Steep learning curve:**

  "**Total man hours 250-300**...I don't know compared to how many we would normally spend throughout the year, it's probably more because of how much work I've put into it. **Once it's all up and running it'll save 50 hours per year**."
  – Debrief

- **Could pay off:**

  "**Since I was in the pilot last year, I knew how to do it**...I get the notice we have another due, pull up the current year's worksheet, pull up last year, go off my notes question by question. I checks notes, like overall revenue figures, chart of accounts. Here's the info you pull in, then I change my dates. Then making sure the questions are similar year to year." - Debrief

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All of this information on burden brings us to finding number five: Changing the survey is a source of burden.

In Phase I, we noted that respondent-reported estimates of burden were mixed – split down the middle between the same or less, and more. In Phase II, we replicated that finding – half say its worse, half say it's the same or better.

What is causing this murk?

We suspect it is the added burden introduced by just changing the survey. Respondents are struggling to estimate how much time it took to pull these data because they are not just doing the typical response process, they are also learning how to navigate a new instrument, which is adding to the amount of time and effort necessary to pull the data. Note this first quote, the respondent talks about how much work it was to pull the data this year – figuring 250 to 300 "man hours." But note how he ends the quote: "Once it's up and running it'll save 50 hours per year" responding to surveys. Here, he is acknowledging that he has to build new infrastructure to report to the survey.

Because this is the second iteration of the pilot, we can see just how that works – the second quote is from a company that participated in Phase I, and she notes that "since I was in the pilot last year I knew how to do it" for this year. Even with the instrument changes between Phase I and Phase II, she had already started to build out new response infrastructure and was relying on that update to provide response to the Phase II pilot.

Recommendations:
Gain additional information about response

Phase II Goal	Finding	Recommendation
Gain additional information about response burden	Content continues to be a challenge.	• Consider cutting content • Consider organizing content by topic • Explore other ways of collecting non-numeric responses.
	Changing the survey is a source of burden.	• Prime respondents for the change • Provide alternate response methods where appropriate

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Ok, so, we wanted to know more about burden. We have two findings from the Pilot.

First, the Phase II Pilot provides additional evidence that there is just too much content on the AIES, and that some content doesn't perform well in the rows and column layout we are using. We recommend a two-pronged solution: the AIES should both consider cutting back on content, either by eliminating questions altogether or by experimenting with question rotation or random assignment, and the AIES should consider organizing the questions by content so that blocks of questions that relate to each other are situated together. We should also explore other ways of collecting non-numeric responses that underperformed in the grid format.

We also learned that just changing the survey will add burden to respondents, and will make it difficult to estimate burden until new response processes have been developed.

Because of this, we have two recommendations. First, prime respondents for the upcoming change. Let companies know that this change is coming, give them opportunities to prepare to the extent that they are capable and interested, and offer support in building this new response infrastructure necessary to complete the AIES.

We also recommend providing alternate response methods where appropriate. This could include data dumps and exports as response, system-to-system response, or augmentation or replacement of data with third party and administrative data. Providing flexible response options and exploring ways to make response as easy as possible will cut burden.

Develop respondent communications

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And, we now find ourselves at the third and final goal of the Phase II Pilot – further development of respondent communications.

Finding #6: Respondents are using available response support materials.

- **Instrument-related:**
  "Printed instructions were fine, and **I really do like the instruction feature, that you could go to the specific instruction**. I don't think we've had that before. **Click to return to where you were is a good feature**." – Debrief

- **Response-support staff:**
  "I had a very positive response from [name] in EWD. She was very **responsive, helpful, and knowledgeable**." – Debrief

- **General inbox:**
  "I emailed the general [inbox], and then Melissa replied. I kind of figured I'd email this help line and then never get a response…**when I needed help I just [used the] generic one**." - Debrief

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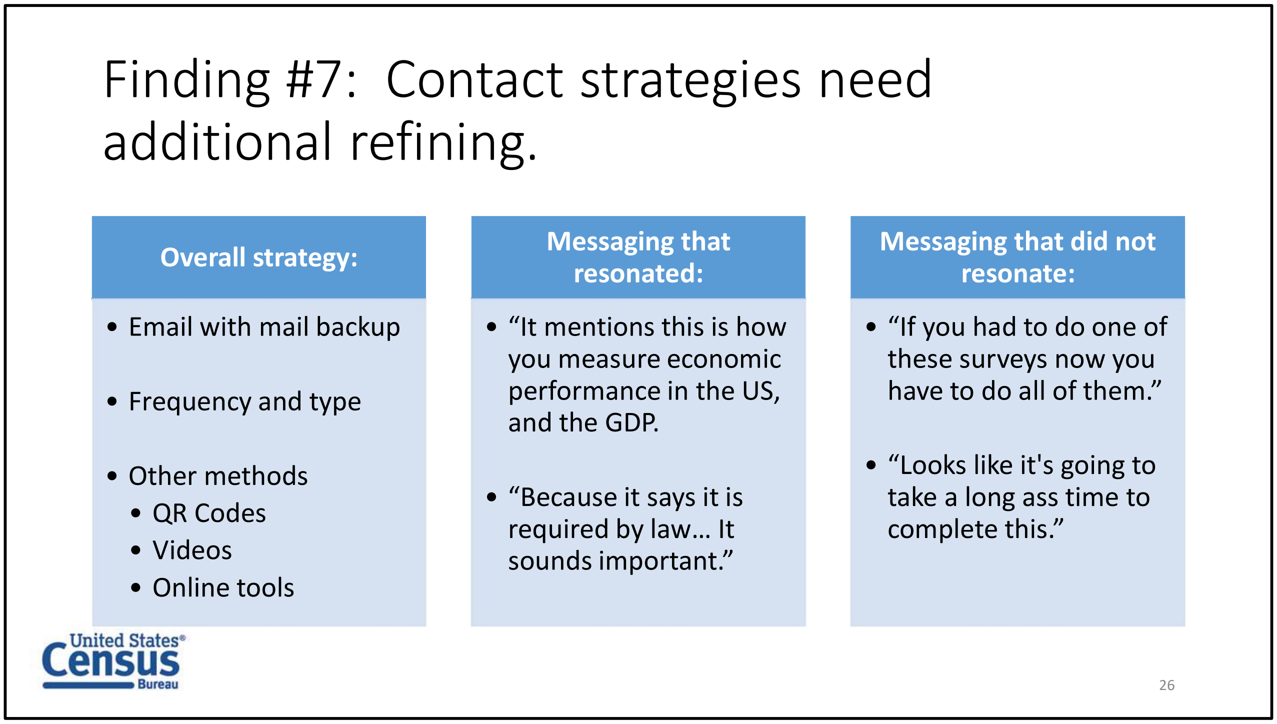
Finding 6 is that respondents are using available response support materials, and we find this across the array of materials we've provided.

First, respondents said that they used the instrument-related response support materials like the FAQs, the cover page to the survey, and the within-instrument help links. The top quote relates to those links: "I really do like the instruction feature that you could go to the specific instruction" and the "click to return you to where you were is a good feature."

They also noted that response support staff – whether as an EC or FSAM AM or other support – was helpful. One debriefing participant described her response support as "responsive, helpful, and knowledgeable."

I do want to note that throughout the pilot field period, we occasionally received questions or comments from response supported companies to the general pilot inbox. The third quote on screen highlights this – the respondent notes that "when I needed help I just used the generic" email even though she had an assigned staff for support.



We asked respondents specifically about our contact strategies, like letters and emails, and finding number 7 is that our contact strategies need additional refining.

Across the letters and emails, we found that respondents generally prefer email as the primary contact with paper letter as a back up. We also note that respondents find the frequency and types of emails and letters that we send out to be manageable. We asked about additional ways of communicating with respondents, including QR Codes, videos, and online tools to support response, and respondents had varying levels of interest in using these other communication tools.

When we asked about the content of our letters and emails, we noted that some content resonated with respondents, and some did not. The importance of the data collection, the ways that we use the data, and it's centrality to economic indicators is a message that respondents understand and is compelling to them – the first quote notes that the survey is "how you measure economic performance in the US and the GDP." The mandatory nature of the survey is another resonant message; note the second quote: "because it says it is required by law…it sounds important."

Interestingly, the letters that we tested included a list of the in-scope legacy surveys that were being integrated in the AIES, and this messaging did not resonate with respondents. One respondent correctly identified that the list communicates that “if you had to do one of these surveys now you have to do all of them,” but that this messaging was discouraging response. Another summed it up succinctly: “Looks like its going to take a long ass time to complete this.”

Recommendations:
Develop respondent communications

Phase II Goal	Finding	Recommendation
Develop respondent communications	Respondents are using available response support materials.	• Continue to develop response support materials. • Consider response support training.
	Contact strategies need additional refining.	• Update letters to retain resonant messaging and drop discouraging messaging. • Consider additional research into communications materials.

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And, we are on our final set of recommendations! Our goal was to develop respondent communications. We had two findings coming out of this – the first is that respondents are using available response support materials. Because of this, we recommend the development of additional response support materials like FAQs, help screens, videos, and other support materials. We also recommend additional response support training for staff at the Census Bureau that will be responding to inquiries from the field. Timely and knowledgeable response from Census Bureau staff supported the response process and encouraged reporting.

Our second finding is that our contact strategies need additional refining. We noted that some of the messaging in the letters and emails is not resonating with respondents. We suggest that letters for future collections emphasize messaging that motivates and drop messaging that discourages response. We also suggest additional investigations into communications materials that support response.

Phase II Goal	Finding	Recommendation
Get feedback on the new structure	Unable to implement for AIES Pilot Phase II.	• Test in AIES Dress Rehearsal collection.
Test key elements of the spreadsheet design		
Holistic unit listing	Holistic listing approach requires instrument flexibility.	• Include functionality to clean up establishment lists • Consider functionality to orient respondents within the spreadsheet
Units autosumming	Autosumming supports response for multi-unit companies.	• Retain and highlight this functionality as appropriate
Color coding	Optionality by unit supports response but needs additional consideration.	• Continue to explore ways of communicating optionality at the unit level.
Gain additional information about response burden	Content continues to be a challenge.	• Consider cutting content • Consider organizing content by topic • Explore other ways of collecting non-numeric responses.
	Changing the survey is a source of burden.	• Prime respondents for the change • Provide alternate response methods where appropriate
Develop respondent communications	Respondents are using available response support materials.	• Continue to develop response support materials. • Consider response support training.
	Contact strategies need additional refining.	• Update letters to retain resonant messaging and drop discouraging messaging. • Consider additional research into communications materials.

And, here we have it! These are the findings and recommendations of the Pilot. In the coming months, we have some additional research to continue to refine the survey in preparation for the 2024 Production launch. We learned so much about what is working and about where we have opportunities for improvement. I want to end my prepared remarks with a quick refresher on what is ahead as we move the AIES from research orientation to production orientation.

Recommendation	Usability Testing	Dress Rehearsal	Future Research
Test new survey structure in AIES Dress Rehearsal collection.	x	x	
Include functionality to clean up establishment lists	x	x	
Consider functionality to orient respondents within the spreadsheet	x		
Retain and highlight autosumming functionality as appropriate	x		x
Continue to explore ways of communicating optionality at the unit level.	x		x
Consider cutting content			x
Consider organizing content by topic			x
Explore other ways of collecting non-numeric responses.	x	x	
Prime respondents for the change		x	
Provide alternate response methods where appropriate			x
Continue to develop response support materials.	x	x	
Consider response support training.		x	
Update letters to retain resonant messaging and drop discouraging messaging.		x	
Consider additional research into communications materials.		x	x

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In fact, we address many of these recommendations in the coming months. We will test the new survey structure in the Dress Rehearsal. We will test functionalities including an online spreadsheet design in both usability testing and the Dress Rehearsal, and into Production-based research. We will look at our communications materials throughout the Dress Rehearsal and into the first year. We will need to continue to grapple with the breadth and scope of data collected in this one survey, and those conversations will continue into the first years of production of AIES.

Key Takeaways:

- **Headed in the right direction!**
  - Increased response rate
  - Improvements in reporting
  - Understand sources of burden
  - Piloting is a proven method
- **Additional areas of investigation**
  - Utilize Centurion and other systems as they come onboard
  - Test survey structure
  - Communications review
  - Test and refine help materials

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OK! Wow, we've covered a lot of ground today! Your head may be spinning, so I wanted to end our time today with two key takeaways from the Pilot Phase II.

First: While there are spots that need additional investigation, generally, I want you to walk away from this briefing today understanding that all of our data suggests that we are headed in the right direction. We saw improvements in the quantity and quality of reported data in Phase II – not only are we getting more data with this design, we're getting better data with this design. We also have a better understanding of sources of burden – those we can control, like content and design, and those we cannot, like the added burden of simply changing the survey. We also have another instance of using Piloting as a proven method of investigation – independent of any of our Census infrastructure, and in just a few months time, we were able to get mountains of data back on our design changes from more than 300 companies, and that is pretty impressive!

All that said, we do want to recognize that there are a few considerations we should focus on in the remainder of 2023 in preparation for the 2024 launch. Our next rounds of testing will be using newly redesigned Centurion and other Census Bureau infrastructure for collection. This means that not only will the respondents be learning how to navigate the new instrument, but we will also be refining our processing and reporting processes. We will be testing – for the first time – the new survey structure that came from our Phase I findings, both through the Dress Rehearsal instrument and usability testing. We are planning continued interviewing and refinement of our communications strategies to encourage response to the AIES in production. And, we will use feedback from the field from both usability testing and the Dress Rehearsal to continue to refine our help and other response support materials to make response as easy as possible.

We have learned so much during this research, and we are so close to production, so it is vitally important that we stay focused through the next six months to rehearse and refine our data collection procedures for AIES. I'm looking forward to our next round of research in part because this round continued to be so fruitful and so promising.

Thank you!

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That concludes our prepared remarks, thank you so much for your time and attention. If you have more specific questions, or if you want to talk about any of the pilot findings further, please do not hesitate to reach out to either of us!