

**SUPPORTING STATEMENT**  
**U.S. Department of Commerce**  
**U.S. Census Bureau**  
**Annual Integrated Economic Survey (AIES)**  
**OMB Control No. 0607-1024**

**PART B: Collections of Information Employing Statistical Methods**

**1. Universe and Respondent Selection**

The target population of the Annual Integrated Economic Survey (AIES) covers all private sector, non-farm employer businesses located in the U.S. (50 states and the District of Columbia) as defined by the 2022 North American Industry Classification System (NAICS). The survey excludes foreign operations of U.S. businesses, most government operations (including the U.S. Postal Service), agricultural production companies, private households, and businesses located in the U.S. territories.

The AIES is selected from a frame of approximately 5.4 million employer companies constructed from the Business Register, which is the Census Bureau's master business list. In the AIES, the company is the ultimate sampling unit (USU). Approximately 305,340 companies will be included in the sample. Of the sampled companies, approximately 37,500 are self-representing (included with a probability of 1), based on the diversity of their operations. The remaining companies on the frame are stratified within sector by geographic division within 4-digit industry (NAICS) classification. This is an unequal probability sample, with company inclusion probabilities accounting for contribution(s) to both national and subnational estimates of annual payroll.

The measure-of-size (MOS) variable used for the AIES sample design is based on the administrative annual payroll, which is available for the majority of establishments on the AIES sampling frame and is generally positively correlated with the AIES key data items. The company-level MOS is determined by summing the establishment values within the company. Each company on the frame is assigned to a single sampling stratum and has a single sampling MOS. Each non-self-representing company on the sampling frame has a sampling industry, defined as its most detailed unique NAICS code.

To minimize erroneous industry classifications in the sample design, in-scope companies are classified as certainty using the complexity criteria described in the following table:

Table 1: AIES Designation of Initial Certainty Stratum by Complexity

Company Operates In	Number of Sectors	Number of Industries*	Number of States
Certainty	2 or more	2 or more	Not considered
	1	3 or more	Not considered
	1	2	2+
	1	2	1
Noncertainty	1	2**	1
	1	1	1+

\* 4-digit NAICS industry

\*\*Sectors 44-45, 62 (selected pairs of industries)

To determine the *initial* sector allocations of companies in each sector frame, let

$N_{NC}$  = total number of companies on the AIES frame that are eligible for sampling (noncertainty)

$N_s$  = total number of companies in sector  $s$  on the AIES frame  $U_s$  that are eligible for sampling

$N_{11}$  = total number of eligible agriculture sector companies in  $U_{11}$  (sector 11 is limited to only subsector 115)

$N_{21}$  = total number of eligible mining, quarrying, and oil and gas extraction sector companies in  $U_{21}$

$N_{23}$  = total number of eligible construction sector companies in  $U_{23}$

$N_{55}$  = total number of eligible management of companies and enterprises sector companies in  $U_{55}$

$n$  = initial total number of companies to be sampled in the AIES excluding those in sectors 11, 21, 23, and 55

The initial allocations in the agriculture (11), mining (21), construction (23), and management of companies and enterprises (55) sectors came from their respective sample sizes from the Annual Capital Expenditures Survey (ACES) and were updated based on information from the 2023 AIES.

The initial sector-level allocations for the other sectors ( $n_s$ ) are obtained with proportional allocation, with  $n_s = n \left( \frac{N_s}{\tilde{N}} \right)$ , where  $\tilde{N} = N_{NC} - N_{11} - N_{21} - N_{23} - N_{55}$ . Initial allocations may be

further increased as needed to attain targeted coefficients of variation (CVs) of 2% or lower on the frame analysis variables for each national tabulation industry level and targeted CVs of 15% or lower for geographic industry estimates.

Let  $U_{IC}$  be the set of companies on the AIES frame that are included in the initial certainty complexity stratum, so that  $U_{NC}$  is comprised of the remaining companies on the AIES frame. The remaining companies are split into 19 separate sector (2-digit NAICS) frames ( $U_s$ ) from the companies in  $U_{NC}$ .

The within-sector stratification procedure is applied to all sectors except agriculture (11), mining (21), construction (23), and management of companies and enterprises (55). As these sectors do not have geographic publication requirements, their initial strata are defined by 3-digit NAICS.

For the remaining sectors, the noncertainty USUs (companies) are stratified into:

- A single diverse company stratum (1) comprising companies that operate in two different 4-digit NAICS industries and one division (sectors 44-45 and 62 only)
- One multi-division stratum per 4-digit NAICS industry<sup>1</sup> comprising companies that operate in one 4-digit NAICS industry and two or more divisions
- Nine geographic substrata per 4-digit NAICS industry comprising companies that solely operate in the identified 4-digit NAICS industry and the geographic substratum (see Table 2)

Table 2: Geographic Strata for the AIES Sampling Design<sup>1</sup>

Division	Total States	States
<b>New England</b>	6	Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont
<b>Middle Atlantic</b>	3	New Jersey, New York, Pennsylvania
<b>East North Central</b>	5	Illinois, Indiana, Michigan, Ohio, Wisconsin
<b>West North Central</b>	7	Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota
<b>South Atlantic</b>	9	Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia
<b>East South Central</b>	4	Alabama, Kentucky, Mississippi, Tennessee
<b>West South Central</b>	4	Arkansas, Louisiana, Oklahoma, Texas
<b>Mountain</b>	8	Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming
<b>Pacific</b>	5	Alaska, California, Hawaii, Oregon, Washington

Services industries incorporate taxable and tax-exempt categories into the strata definitions, essentially doubling the number of strata for these industries. Wholesale trade industries incorporate type of operation category into the strata definitions, essentially tripling the number of strata for these industries.

Because the AIES is ultimately a multipurpose sample, it is not possible to optimize for a single data item. Instead, the AIES utilizes stratified sequential sampling, also known as Chromy's method.

Stratified sequential sampling is a without-replacement probability-proportional-to-size (PPS) sampling method that allows for a within-strata sort. Within each AIES sampling stratum, the

<sup>1</sup>

USUs (companies) are sorted by national industry tabulation NAICS (5-digit or 6-digit) and state, providing implicit stratification. Because the USU probabilities of selection are a monotonically increasing function, the AIES sampling procedure includes a second-level sort on the USU annual payroll, which should help ensure a representative sample in terms of unit size within stratum.

An approximation of the 2025 AIES sample size is presented in Table 3:

Table 3: AIES Allocation

<b>Sector</b>	<b>Total</b>
Complex Certainties	37,500
11/21/23/55	3,940
22	950
31-33	22,900
42	17,800
44-45	31,300
48-49	9,900
51	4,500
52	11,800
53	11,100
54	39,000
56	14,900
61	4,450
62	28,300
71	6,800
72	29,000
81	31,200
Total	305,340

The 2025 AIES sample includes approximately 1,000 large, multiunit companies (primarily covering out-of-scope enterprises) which are necessary to update and maintain a centralized, multipurpose Business Register.

The sampling counts presented above may be updated. If that occurs, we will submit a non-substantive change request to revise the information after this request is cleared by OMB.

### **Response Rates**

This survey replaced a suite of seven independently designed surveys. The survey unit response rate (URR) was expected to fall in the range of those surveys of approximately 50 – 70%. For survey year 2023, the AIES URR was approximately 63.6%. The reporting URR is the ratio of the number of active, in-scope companies that provided sufficient data to be considered a respondent to the total number of active, in-scope businesses in the sample times 100. The URR assesses the risk of nonresponse bias. Similar metrics about nonresponse bias are the total

quantity response rate (TQRR) and/or the imputation rate (IR). These metrics measure the proportion of the total estimate coming from reported or imputed sample weight-adjusted data values. A separate metric can be computed for each item collected in AIES, whereas there is only one unit response rate for the survey. TQRR/IR can be used to gain insight into the quality of item-level estimates versus the overall URR.

### **Nonresponse and Estimation**

Data are imputed using survey data and administrative data as input for unit nonresponse, item nonresponse, and for responses that fail computer or analyst edits.

Totals are computed as the sum of weighted data (reported and imputed) for all selected sampling units that meet the sample canvass and tabulation criteria given above. The sampling weight for a given sampling unit is the reciprocal of its probability of inclusion into the sample. Measures of variation will be provided in the form of coefficients of variation and standard errors.

### **Benchmarking**

Published estimates from the AIES will be benchmarked to the Economic Census.

### **NAICS Improvement Initiatives**

On its last approval of the AIES, OMB remarked that, “respecting the previous Terms of Clearance, and the requests by a Research Professor public commenter that the Census Bureau acknowledges largely to be valid but not appropriate to address within a survey approval process, the Census Bureau is requested to provide annually to OMB a summary of efforts in which Census leads or participates in working with BLS and any other relevant agencies to explore the extent of NAICS classification issues, with a goal of improving classification accuracy.”

The Census Bureau is committed to strengthening the accuracy, consistency, and efficiency of NAICS through modernization, advanced tools, and interagency collaboration.

A key focus is the enhancement of Census Bureau machine learning applications such as Industry Classification using Publicly Available Data (INCPAD), Smart Instrument NAPCS Classification Tool (SINCT), and Business Establishment Automated Classification of NAICS (BEACON), supported by quality control measures to ensure reliable classifications. (NAPCS is the North American Product Classification System.) BEACON is under continuous review and modification to further improve its accuracy, especially during the transition from the 2017 to the 2022 NAICS framework. Analysts are also supported by the Classification Assistance Tool (CAT), which improves classification decision-making based on respondent data. In parallel, the Census Bureau is conducting an extensive review of the Business Register, resulting in thousands of updates to improve classification accuracy and reduce the need for imputation.

To improve implementation, the Census Bureau is also addressing classification of emerging industries such as artificial intelligence industries and bioeconomy. Research across the

Business Register and third-party sources ensures these evolving sectors are appropriately identified and coded, while methods are aligned with other federal agencies to provide consistent classifications. Additionally, methodologies are being updated to support the full conversion of the Business Register universe to the 2022 NAICS basis, which will take effect after its closeout in early November 2025. Until then, further review of the Business Register is underway to ensure that the 2022 transition is as accurate and reliable as possible.

Collaboration with partner agencies remains central to this work. Engagements with the Bureau of Labor Statistics (BLS), Bureau of Economic Analysis (BEA), and IRS provide opportunities to address problematic NAICS structures, reduce redundancies, and strengthen classification methodologies. Tri-annual interagency meetings serve as a forum to advance revisions and ensure alignment across the federal statistical system.

Through these combined initiatives, the Census Bureau is ensuring NAICS keeps pace with a dynamic U.S. economy, reduces classification inaccuracies, and continues to serve as a reliable foundation for economic measurement.

On its last approval of the AIES, OMB also requested that the Census Bureau document “whether Census reported their findings related to NAICS issues and attempts to improve accuracy in the last year to the Federal Economic Statistics Advisory Committee (FESAC) for further feedback and recommendations.” FESAC was discontinued, effective February 28, 2025. The final FESAC meeting was held on December 13, 2024, which was before OMB made its request.

## **2. Procedures for Collecting Information**

In the past, the Census Bureau conducted numerous annual surveys that were often differentiated by type of business (i.e., manufacturing, retail, service, wholesale). In survey year 2023 (SY23/Year 1), the Census Bureau integrated seven existing annual business surveys into a single, streamlined survey called the AIES. The AIES replaced the following surveys that respondents would have been asked to participate in:

- Annual Capital Expenditures Survey (ACES)
- Annual Retail Trade Survey (ARTS)
- Annual Survey of Manufactures (ASM)
- Annual Wholesale Trade Survey (AWTS)
- Manufacturers' Unfilled Orders Survey (M3UFO)
- Report of Organization (COS)
- Service Annual Survey (SAS)

Survey year 2021 (SY21) was the final collection for the COS and ASM. Survey year 2022 (SY22, with data collection during calendar year 2023) was the final collection for the other five surveys (ARTS, AWTS, SAS, ACES, and M3UFO).

Survey year 2025 (SY25/Year 3) marks the beginning of a new AIES sample.

The initial letter to firms identifies the survey name, due date, instructions for accessing the electronic survey instrument, authority for collection, and burden estimate. It also provides a website with information for respondents and a telephone number for those needing assistance. When the Census Bureau has an email address for the respondent, the agency will also send out the initial survey request by email. The Census Bureau will periodically follow up with nonrespondents via mail, email, and phone.

Electronic reporting will be the only advertised reporting option. Nevertheless, the Census Bureau will accept data submitted through other methods. For example, if a firm does not have access to the Internet, the Census Bureau can arrange for the business to provide data to an analyst via phone.

### **3. Methods to Maximize Response**

The intention is for the redesigned survey to be easier to complete (reducing respondent burden), resulting in better and more timely data and allowing the Census Bureau to operate more efficiently to reduce costs.

An initial letter and/or email will be sent to companies informing them that the survey has launched. Firms will be given at least 30 business days to respond and will be granted extension dates upon request. Prior to the AIES due date, respondents will receive a due date reminder. After the due date, the Census Bureau will periodically follow up with delinquent cases via mail, email, and/or phone.

The agency provides a website with information for respondents and a telephone number and secure messaging option for those needing assistance. For selected large and complex companies, account managers provide tailored customer service and work with companies to ensure timely and accurate reporting.

### **4. Tests of Procedures or Methods**

#### **Communications Testing for the 2023 and 2025 AIES**

Before the launch of the 2023 AIES, 24 cognitive interviews were conducted with respondents from previous annual surveys that were consolidated into the AIES. Interviews were conducted with participants from a variety of company sizes and industry classifications. These interviews aimed to evaluate the clarity and effectiveness of letters, emails, and other possible communication formats intended for the initial AIES survey mailing. The primary goal was to determine whether respondents understood the survey communications and to assess how well those messages conveyed key information.

This research specifically examined how clearly respondents understood that the AIES is a mandatory survey that replaces certain existing annual surveys. Additionally, the study explored how respondents currently receive communications from the Census Bureau, their preferred communication methods, and which elements of the messaging encourage them to begin the survey.

Key findings revealed that mailed Census Bureau materials often experience delays between arriving at the company and reaching the individual responsible for completing the survey. Meanwhile, most respondents reported receiving Census Bureau emails and preferred email as their primary communication method.

Respondents indicated that the most critical information in the initial communication included the survey due date, login details for survey access, and information about whether the survey is mandatory or voluntary.

The advance mailing also included explanations of how the AIES data would be used. Among these, contributions to measuring the economy and informing gross domestic product (GDP) estimates were seen as particularly compelling, alongside the mandatory nature of the survey.

Lastly, most respondents expressed interest in receiving a thank-you email, viewing it as confirmation that their submission was successfully received.

In preparation for the 2025 AIES, cognitive interviews are planned with up to 30 participants during the fall of 2025 to evaluate updated communications materials. This research aims to assess respondents' perceptions of the AIES materials, including whether the messages are clear, motivating, and effectively convey the mandatory nature of the survey. It will also explore any concerns about confidentiality or data security, identify gaps in the information provided, and gather suggestions for improving the materials to encourage participation.

### **Debriefing Interviews for the 2023 and 2024 AIES**

Following the collection of both the 2023 and 2024 AIES, Census Bureau researchers conducted in-depth debriefing interviews with survey respondents.

RTI International and Whirlwind Technologies, LLC were contracted to conduct debriefing interviews for the 2023 AIES. The focus of the debriefing interviews was to solicit feedback about respondent experiences with completing the survey, including a discussion of their level of effort, general impressions of the collection instrument, and an evaluation of the content and accessibility of the survey communication materials. The contractors completed 51 interviews over two rounds of debriefings. Interviews were conducted with a variety of company sizes and industry classifications.

Most participants in the study had a generally positive view of the AIES and appreciated the Census Bureau's efforts to streamline the mandatory reporting process. However, despite the overall support, many still encountered technical and usability challenges. A significant concern was the increased level of detail required in the new survey format, with several participants specifically noting the greater granularity as burdensome. Reporting data at the location level, such as employee counts, depreciable assets, inventories, expenses, and revenue, was especially difficult, particularly for larger businesses that manage numerous sites and lack detailed insight into each one. Manufacturing companies faced issues due to the complex requirements for each facility.

Participants also found that internal company data structures often didn't align with how the AIES asked for information, making it harder to provide accurate responses. Time consumption was another major concern, with most participants preferring one comprehensive survey over multiple shorter ones throughout the year. Additional feedback included confusion over certain question definitions, the desire for a printed confirmation of submitted data, complaints about overlapping reporting requirements from other government agencies, and suggestions for improving the survey website's usability.

Regarding the data submission process, many participants preferred the online data entry option over the downloadable Excel spreadsheet, which was seen as an extra and potentially error-prone step. While larger businesses acknowledged some advantages to the spreadsheet, concerns about its usability and upload reliability made the online option more appealing. Smaller businesses using the online interface generally reported fewer issues. Participants also appreciated the support materials provided, such as the "Information for Respondents" and FAQ pages, as well as the pre-survey postcard and reminder emails, which were seen as clear, helpful, and informative.

In the summer of 2025, Census Bureau researchers conducted 40 in-depth debriefing interviews with recent AIES respondents, spread across two rounds. Participants came from a wide range of company sizes and industry sectors. The main objectives of these interviews were to identify challenges respondents encountered, evaluate their overall reporting experience, assess the impact of recent updates to the data collection instrument, and collect feedback on its usability.

Overall impressions of the AIES from the first round of interviews were mixed but leaned positive. Respondents noted that the survey was very detailed, sometimes going deeper than expected, such as asking not only about revenue but also how it was received. While some found the questions relevant, others felt the content was more suited to larger businesses and not always applicable to smaller firms, particularly when questions focused on large asset purchases.

Despite these concerns, many acknowledged the survey's necessity for government purposes, even if they saw it as a personal inconvenience or distraction. Several respondents described the experience as easier compared to previous years, especially for those with prior experience or accounting backgrounds. However, they also noted it might be challenging for smaller businesses without dedicated resources. Lastly, the website was generally praised for being user-friendly and straightforward, especially in comparison to other government platforms. The website functioned well, with no issues reported in downloading, uploading, or resolving errors within the instrument.

Most multiunit company respondents used the spreadsheet option, which made reporting easier, especially when delegating sections to different team members. Respondents generally did not contact the Census Bureau for help, though some requested deadline extensions through the Respondent Portal. The majority felt the survey questions were appropriate for their business type and had no concerns about the legitimacy of the survey.

The second round of debriefing interviews continued to assess the overall survey instrument while introducing new questions focused on specific aspects such as the online spreadsheet

features, robotics-related inquiries for manufacturing companies, and feedback on a proposed item concerning expenses related to artificial intelligence.

Findings from the second round of debriefing interviews and the overall final report will be completed in fall 2025.

Additional details regarding the debriefing interviews for the 2023 AIES tool can be found in Attachment H.

### **Nonresponse Debriefings for the 2023 AIES**

Following the 2023 AIES data collection, 32 in-depth debriefing interviews were conducted with nonrespondents to identify barriers to participation and explore ways to reduce respondent burden and encourage future survey completion. Researchers conducted interviews with a diverse group of respondents from various company sizes and industry classifications.

Main findings revealed that respondents frequently encountered technical issues that sometimes prevented them from completing the survey. Additionally, there were challenges aligning company records with the survey's data requests. Many respondents also found the survey too lengthy, making it difficult to complete amid competing business priorities or limited staffing.

In addition to discussing response barriers, nonrespondents were asked for feedback on the purpose of the AIES, as well as their initial reactions to a proposed letter from the Office of General Counsel and an experimental letter intended for company CEOs. Overall, respondents lacked a clear understanding of the AIES's purpose or how the survey data would be used. They perceived the General Counsel letter as somewhat threatening, likely to prompt a reaction from the company, while the CEO-targeted letter was viewed as more collaborative and likely to be forwarded to the appropriate individual for action.

Additional details regarding the 2023 AIES nonresponse debriefings can be found in Attachment I.

### **AIES Content Selection Tool Usability Testing**

In many online establishment surveys, respondents are given a preview of assigned forms to support response. However, there is no designated survey form for the AIES, as questions are specific to a company's industry (or industries). As such, the Census Bureau developed an interactive content selection tool for previewing questions specific to a company's designated NAICS code(s) to support survey completion. In preparation for the 2024 AIES, 23 semi-structured usability interviews were conducted in winter 2024 to evaluate the content selection tool that was built into the survey to support response.

During usability testing, researchers aimed to determine whether users understood the tool's purpose and recognized that the content shown was industry-specific. They also evaluated whether users comprehended the differences between units displayed within the tool. Additionally, researchers assessed the users' ability to use the tool to generate content corresponding to their AIES responses and reviewed the effectiveness of the tool's features in supporting this task.

Key findings from this research highlighted that NAICS codes, an important element of the content selection tool, often caused confusion for respondents. Overall, respondents responded positively to the tool and were open to receiving information about it in early survey communications. However, they experienced difficulties with selecting NAICS codes and navigating certain features of the tool's interface. Respondents also expressed a desire for a clearer connection between the tool and the AIES survey. Based on these findings, the Census Bureau decided to eliminate the interactive content selection tool. For survey year 2025, respondents will, instead, be able to directly preview their questions in the reporting instrument itself.

Additional details regarding the usability testing of the AIES content selection tool can be found in Attachment J.

### **E-Commerce Exploratory Interviews**

RTI International and Whirlwind Technologies, LLC were contracted to conduct exploratory interviews with respondents who completed the AIES to discuss the recordkeeping practices and common verbiage for e-commerce economic activity for future iterations of the survey. The goal was to explore the recordkeeping practices and data accessibility related to e-commerce activities and how such practices reflected opportunities and challenges in measuring e-commerce activities in the AIES context. During summer 2024, RTI conducted 31 exploratory interviews with recent respondents to the AIES. Interviews were conducted with participants from a variety of company sizes and industry classifications.

The findings showed that how businesses keep records of e-commerce activities is strongly influenced by their past operational practices. This reliance on historical methods can either limit what is recorded or shape the need for tracking e-commerce to support operations. Additionally, businesses often define e-commerce based on what they already record, rather than considering the broader role of digital technologies. The exploratory interviews highlighted significant differences in how various industries define and document e-commerce, suggesting the need for further research to better understand what drives these differences.

Additional details regarding the e-commerce exploratory interviews can be found in Attachment K.

## **5. Contacts for Statistical Aspects and Data Collection**

For questions regarding the planning and implementation of this survey, please contact Edward Watkins, AIES Assistant Survey Director (Economy-wide Statistics Division, U.S. Census Bureau), at 301-763-4750 or [Edward.E.Watkins.III@census.gov](mailto:Edward.E.Watkins.III@census.gov).

For inquiries about the methodology for this survey, please contact James Hunt, Methodology Director (Economic Statistical Methods Division, U.S. Census Bureau), at 301-763-6599 or [James.W.Hunt@census.gov](mailto:James.W.Hunt@census.gov).

## LIST OF ATTACHMENTS

- A. Legal Citation – Title 13 U.S.C.
- B. 2025 AIES Sample Size and Burden Estimates
- C. 2025 AIES Letters and Emails
- D. Electronic Instrument Selected Screenshots for the 2025 AIES
- E. 2025 AIES Content
- F. Content Changes Between the 2024 and 2025 AIES
- G. Consultations with Key Federal Stakeholders
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