Annual Integrated Economic Survey (AIES) Overview

September 2023

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What we will cover today:

- **AIES Background & Drivers**
- **Overarching Goals & Timeline**
- **Teams & Stakeholders**
- **Internal & External Communication**
- **Sampling Requirements**
- **Content Harmonization**
- **Research & Testing Activities**

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Background & Drivers

- National Academy of Sciences (NAS) panel studied our annual economic surveys and provided Econ leadership with recommendations.

- Small Econ group, with representations from the various divisions, reviewed the recommendations and selected which ones to implement.

- Main drivers of this effort include:

Meet data needs – timely, granular, standardized

Declining budgets

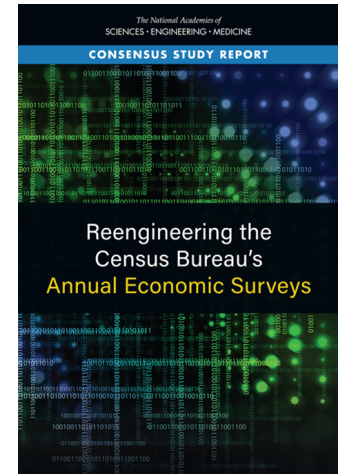Improve efficiency – consistency across programs (content, processes, systems)
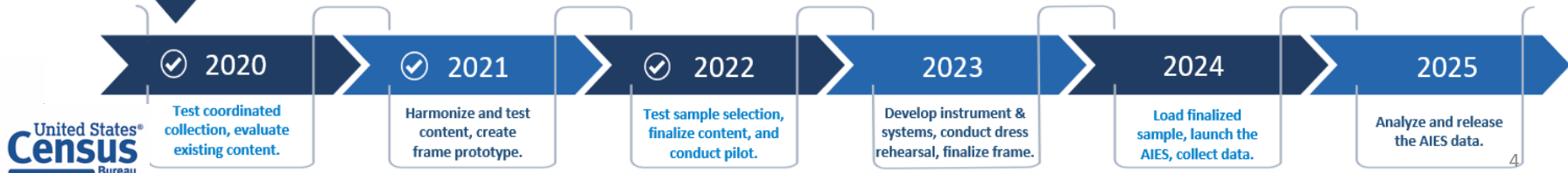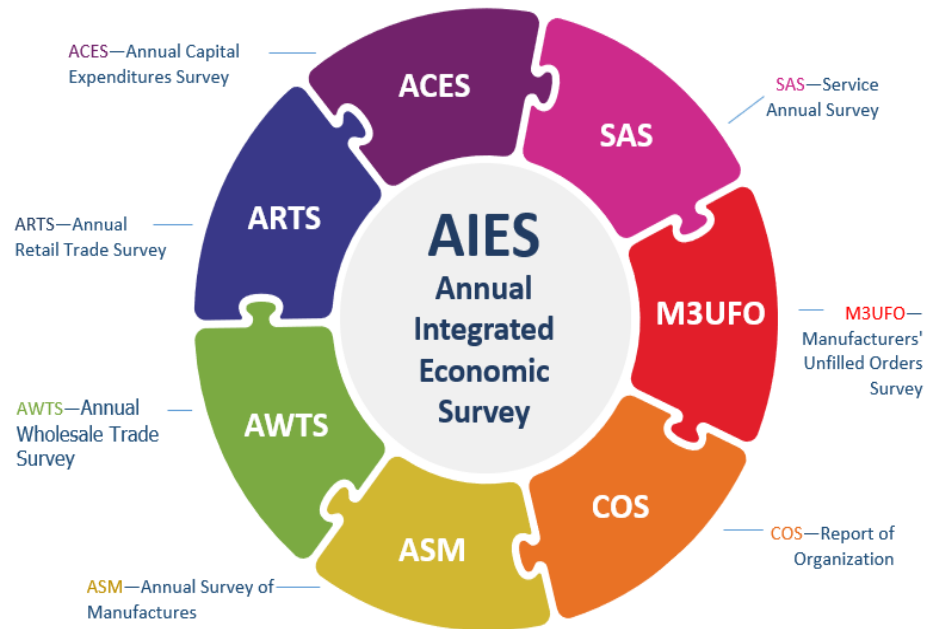
Declining response rates

Stay relevant

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What is the Annual Integrated Economic Survey?

Current State

- Industry focused.
- Overlapping content.
- National estimates.
- Independent samples.
- Different reporting units by program.
- Inefficient processes and operations.
- Varying classification systems.

Future State

- Alignment to enterprise programs.
- Consolidated processing system.
- Integrated frame and sample.
- National and state geographic estimates.
- Standardized and rotating content.
- Respondent centric.
- Coordinated collection and instruments.
- Harmonized reporting units.
- Leveraging of alternative data.
- Holistic company analysis.
- Economy-wide data products.

Integration of Seven Annual Economic Surveys

ACES—Annual Capital Expenditures Survey

SAS—Service Annual Survey

ARTS—Annual Retail Trade Survey

M3UFO—Manufacturers' Unfilled Orders Survey

AWTS—Annual Wholesale Trade Survey

COS—Report of Organization

ASM—Annual Survey of Manufactures

AIES Annual Integrated Economic Survey

ACES · SAS · M3UFO · COS · ASM · AWTS · ARTS

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✓ 2020	✓ 2021	✓ 2022	2023	2024	2025
Test coordinated collection, evaluate existing content.	Harmonize and test content, create frame prototype.	Test sample selection, finalize content, and conduct pilot.	Develop instrument & systems, conduct dress rehearsal, finalize frame.	Load finalized sample, launch the AIES, collect data.	Analyze and release the AIES data.

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Transitioning of Annual Programs

- **Survey Year 2021**
  - Annual Survey of Manufacturers (ASM)
  - Report of Organization
- **Survey Year 2022**
  - Annual Retail Trade Survey (ARTS)
  - Annual Wholesale Trade Survey (AWTS)
  - Service Annual Survey (SAS)
  - Annual Capital Expenditures Survey (ACES)
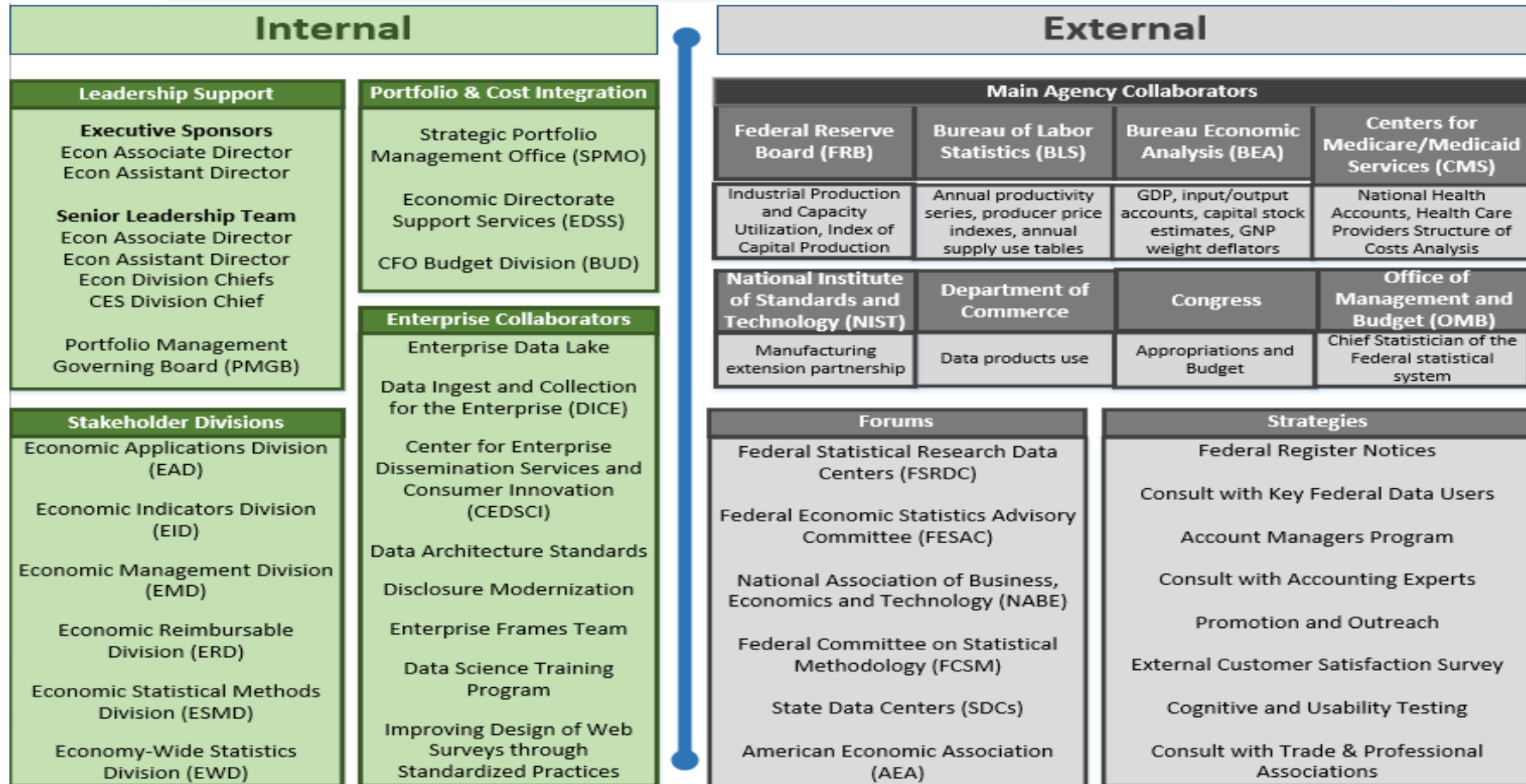 - Manufacturers' Unfilled Orders Survey (M3UFO)

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AIES Components & Teams

Project Direction & Alignment Stephanie Studds	Operations Vacant (Lisa Donaldson, acting)	Content and Analysis Lisa Donaldson	Frame and Methods Kim Moore
Survey Planning & Integration *Coordinate and align all aspects of SLC for the new annual program to move to production*	**Collection Framework** *Coordinate collection efforts, develop a collection strategy, and work with enterprise team (DICE) to plan collection operations for integrated annual.*	**Annual Content Determination and Harmonization** *Determine core questions, rotating industry and topical questions, aligning to the Economic Census, where possible.*	**Sampling Research** *Research/implement sampling improvements (sampling unit, stratification, and coordinated sampling)*
Respondent Research *Conduct research with respondents (e.g. cognitive testing, usability testing) to inform content harmonization, collection, and instrument design*	**Pilot & Dress Rehearsal** *Plan and Implement survey pilots and a dress rehearsal to inform the content and instrument and to make adjustments prior to production based on lessons learned.*	**Annual Program Requirements** *Determine program requirements for the new annual survey to meet user needs/data gaps*	**Frame Extraction Research** *Research frame extraction, create frame roadmap, and develop a frame prototype*
Indicator Alignment *Ensure alignment w/ indicators to accommodate future expansion of implemented improvements*	**Processing System** *Gather requirements, develop infrastructure, and implement a new processing system to support the integrated annual*	**Data Products and Release Planning & Coordination** *Determine data products, develop processes for effective analytical review/analysis, and establish plans for optimal data release.*	**Post Data Collection Methodology** *Develop requirements, test, evaluate, and implement selected approaches for weight adjustment/calibration, variance estimation & replication, non-response adjustment, and hot deck imputation.*
Instrument Design *Develop a standard, cohesive, integrated collection instrument*	**Macro, Disclosure, & Dissemination** *Determine requirements and processes to prepare for tabulation, disclosure, and dissemination and release data*	**Analyst Toolkit** *Create an AIES analysis plan and develop tools for micro/macro analysis*	**Time Series** *Determine changes to time series for all impacted surveys and how best to handle those changes across the various programs..*
Account Management Activities *Determine roles & responsibilities of account managers, who serve as single points of contact for largest companies.*	**Status Changes** *Determine the processing needs to make sense from both a respondent and analyst perspective to be as clean and methodologically sound.*	**AIES Web Presence** *Create an external webpage for early awareness and communication of upcoming changes with AIES as well as a future page for data release.*	**Production Frame Development** *Develop and test production frame parameters and programs, and deliver final*
Communications & Outreach *Increase internal and external awareness, develop training, provide notifications*	**Rule Engine** *Determining and documenting rules for flagging problem data and simple data updates.*	**2022 Econ Census Content Determination** *Provide Econ Census content aligned with Annual content and without duplication.*	**Production Sampling** *Develop, test, and implement production sample process.*
Alternative Data Sources *Evaluate and leverage alternative data for suitability to improve processes & methods (SEC Data, NPD)*	**Data Management** *Develop governance of standard names and metadata to ensure data coherence*		

TEAM STATUS KEY
- NOT STARTED   • IN PROGRESS   • COMPLETED

Patterned boxes: Team operates in conjunction with a team whose work includes AIES-critical deliverables and outputs but whose scope is larger than AIES-specific outcomes
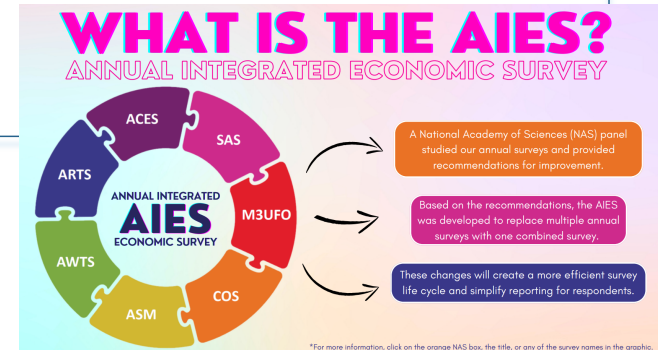
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AIES Stakeholders

Internal

Leadership Support

Executive Sponsors
Econ Associate Director
Econ Assistant Director

Senior Leadership Team
Econ Associate Director
Econ Assistant Director
Econ Division Chiefs
CES Division Chief

Portfolio Management
Governing Board (PMGB)

Stakeholder Divisions

Economic Applications Division (EAD)

Economic Indicators Division (EID)

Economic Management Division (EMD)

Economic Reimbursable Division (ERD)

Economic Statistical Methods Division (ESMD)

Economy-Wide Statistics Division (EWD)

Portfolio & Cost Integration

Strategic Portfolio Management Office (SPMO)

Economic Directorate Support Services (EDSS)

CFO Budget Division (BUD)

Enterprise Collaborators

Enterprise Data Lake

Data Ingest and Collection for the Enterprise (DICE)

Center for Enterprise Dissemination Services and Consumer Innovation (CEDSCI)

Data Architecture Standards

Disclosure Modernization

Enterprise Frames Team

Data Science Training Program

Improving Design of Web Surveys through Standardized Practices

External

Main Agency Collaborators

Federal Reserve Board (FRB)	Bureau of Labor Statistics (BLS)	Bureau Economic Analysis (BEA)	Centers for Medicare/Medicaid Services (CMS)
Industrial Production and Capacity Utilization, Index of Capital Production	Annual productivity series, producer price indexes, annual supply use tables	GDP, input/output accounts, capital stock estimates, GNP weight deflators	National Health Accounts, Health Care Providers Structure of Costs Analysis
National Institute of Standards and Technology (NIST)	**Department of Commerce**	**Congress**	**Office of Management and Budget (OMB)**
Manufacturing extension partnership	Data products use	Appropriations and Budget	Chief Statistician of the Federal statistical system

Forums

Federal Statistical Research Data Centers (FSRDC)

Federal Economic Statistics Advisory Committee (FESAC)

National Association of Business, Economics and Technology (NABE)

Federal Committee on Statistical Methodology (FCSM)

State Data Centers (SDCs)

American Economic Association (AEA)

Strategies

Federal Register Notices

Consult with Key Federal Data Users

Account Managers Program

Consult with Accounting Experts

Promotion and Outreach

External Customer Satisfaction Survey

Cognitive and Usability Testing

Consult with Trade & Professional Associations

AIES Internal Communication

- **Communication SharePoint subsite includes:**

  - ❑ Infographics
  - ❑ Frequently Asked Questions (FAQs)
  - ❑ Link to submit questions

- Teams Channel created to communicate info and ask questions

- More frequent updates via email and meetings to keep Econ up-to-date.

AIES External Communication

External website is live! www.census.gov/aies

- ❖ Content Summary
- ❖ Instruction Manual
- ❖ Preview Survey Questions
- ❖ Transition language developed for legacy annual surveys
- ❖ External Communication Plan
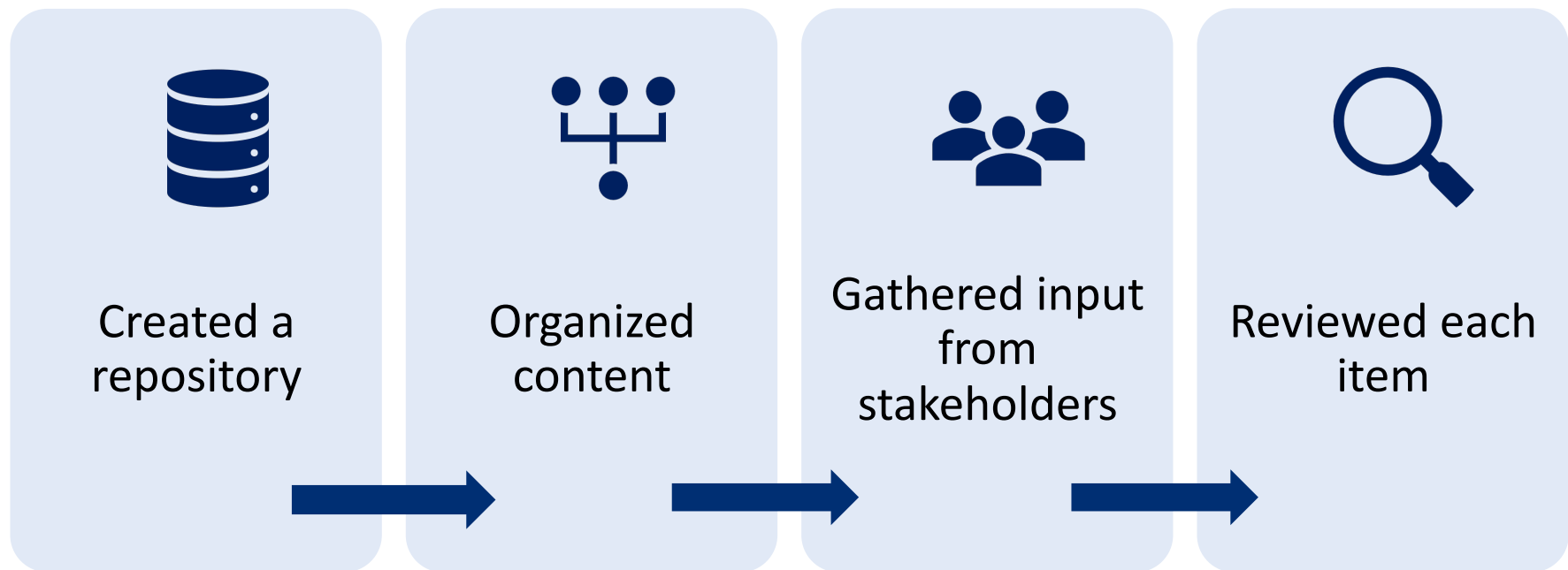
Sampling Design Requirements

National	Subnational

• Revenue/Receipts, Annual Payroll, Inventories, Capital Expenditures…
 	
• Disaggregated industry (NAICS) levels
   • Differs by sector
   • 4-digit NAICS, 5-digit NAICS, 6-digit NAICS
	• Revenue/Receipts, Annual Payroll, 1st Quarter Payroll, Employment
	
	• Region, Division, State
	
	• Aggregated NAICS levels (2 and 3-digit)
	
	• Aggregated NAICS level (2 through 4-digit manufacturing only)

• Recommended sample size for the 2023 AIES – 385,000 companies
• Plan to refresh the sample every 2-3 years

Content Harmonization

Created a repository

Organized content

Gathered input from stakeholders

Reviewed each item

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Content Harmonization - Revenue

Retail
- What were the total sales of merchandise and other operating receipts for this firm in 2021?

Wholesale
- What were this firm's TOTAL sales and operating revenue in 2021?*
- What were this firm's sales and other operating receipts in 2021?

Services
- What were the revenues for this firm in 2021?

Manufacturing
- What was the total value of products shipped and other receipts for this establishment?
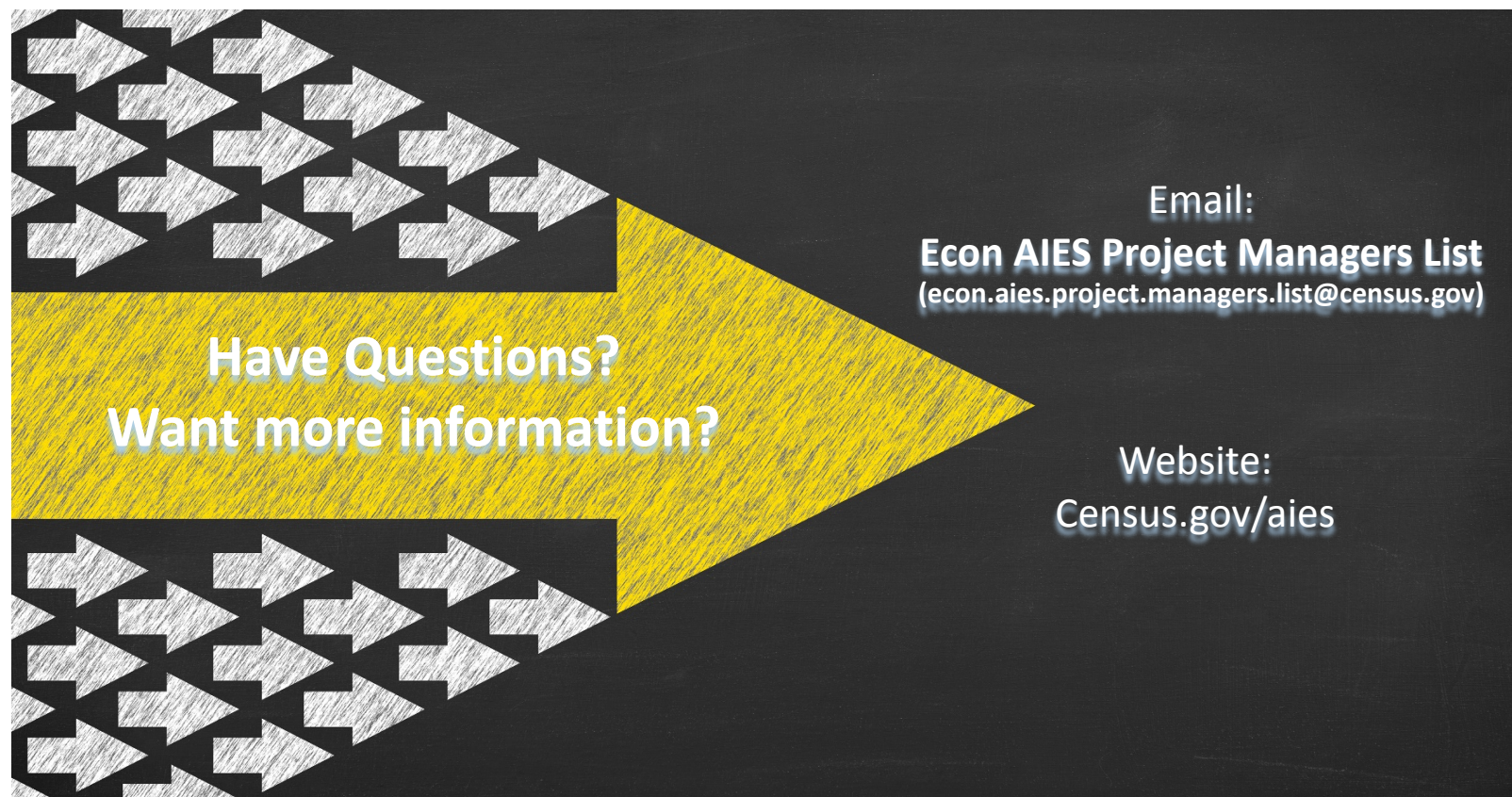- What were the sales, shipments, receipts, or revenue?**

AIES
- What were the total sales, shipments, receipts, or revenue in 2021?

*Agents, Brokers, Representatives and Electronic Markets
** Added establishments

Research & Testing

	Phase I Pilot	Phase II Pilot	2022 AIES
Timeline:	**Start:** March 2022 **Findings:** Sept 2022	**Start:** February 2023 **Findings:** June 2023	**Start:** September 2023 **Findings:** December 2023
Sample Size:	78 recruited companies *(62 provided data)*	Mailed to 868 companies *(As of 8/18/23, 510 have provided data)*	Planned mail to approx. 8,300 companies
Instrument:	Qualtrics	Excel spreadsheet	Centurion-rendered instrument
Goals:	See if companies would/could actually report to the questions we were asking	• Test all collection units in one survey • More accurate measures of burden	• Instrument performance • More information on burden • Maximize enterprise partnerships

Have Questions?
Want more information?

Email:
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Website:
Census.gov/aies

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