

Re-imagining supply chain data at the Census Bureau

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U.S. Census Bureau

Federal Committee on Statistical Methodology
Annual Research and Policy Conference
10/26/2023
Hyattsville MD



Note: Any opinions and conclusions expressed herein are those of the author and do not reflect the views of the U.S. Census Bureau.

Recent supply chain

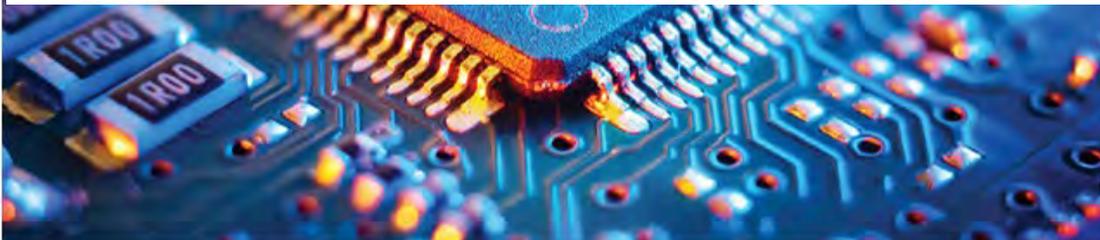
NEWS / HEALTH

There's a national shortage of Adderall. Here's how to cope.

Manufacturers of the drug used to treat ADHD are struggling to meet a shortfall caused by delays at one supplier.



The U.S. Food and Drug Administration has declared a nationwide shortage of Adderall, a medication used to treat attention-deficit disorder among other conditions.

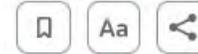


Future of Health

New COVID shots still hard to find for some Americans

By Michael Erman and Ahmed Aboulenein

October 8, 2023 10:32 AM EDT · Updated 5 days ago



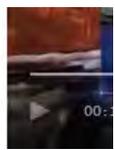
[1/2] A sign advertises COVID-19 (coronavirus) vaccine shots at a Walgreens Pharmacy in Somerville, Massachusetts, U.S., August 14, 2023. REUTERS/Brian Snyder [Acquire Licensing Rights](#)



spread Covid and age and sky-high

NEWSLETTERS SIGN IN NPR SHOP

contributed to
the crisis



Stakeholders demand insight...

BUILDING RESILIENT SUPPLY CHAINS, REVITALIZING AMERICAN MANUFACTURING, AND FOSTERING BROAD-BASED GROWTH

100-Day Reviews under
Executive Order 14017

June 2021

A Report by
The White House

Including Reviews by
Department of Commerce
Department of Energy
Department of Defense
Department of Health and Human Services



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H.R.4346 - Chips and Science Act

117th Congress (2021-2022)

LAW [Hide Overview](#)

Sponsor: [Rep. Ryan, Tim \[D-OH-13\]](#) (Introduced 07/01/2021)

Committees: House - Appropriations | Senate - Appropriations

Committee Reports: [H.Rept. 117-80](#)

Committee Prints: [H.Prt. 117-53](#)

Latest Action: 08/09/2022 Became [Public Law No: 117-167](#). ([All Actions](#))

Roll Call Votes: There have been [11 roll call votes](#)

Tracker: ● [Introduced](#) > [Passed House](#) > [Passed Senate](#) > [Resolving Differences](#) > [To President](#) > [Became Law](#)

Summary (8) **Text (8)** Actions (86) Titles (14) Amendments (45) Cosponsors (0) Committees (2) Related Bills (8)

Text: H.R.4346 — 117th Congress (2021-2022)

... and the Census Bureau has a lot of supply chain data...

Economic Census

Annual Survey of Manufacturers (ASM)

Annual Wholesale Trade Survey (AWTS)

Annual Retail Trade Survey (ARTS)

Services Annual Survey (SAS)

Quarterly Survey of Plant Capacity

Utilization (QPC)

Commodity Flow Survey (CFS)

County Business Patterns+ ZIP Business

Patterns (CBP/ZBP)

Foreign trade import/export data

Profile of importing/exporting firms

Manufacturing and International Trade

Report (MITR)

Business Dynamics Statistics (BDS)

Business Trends and Outlook Survey

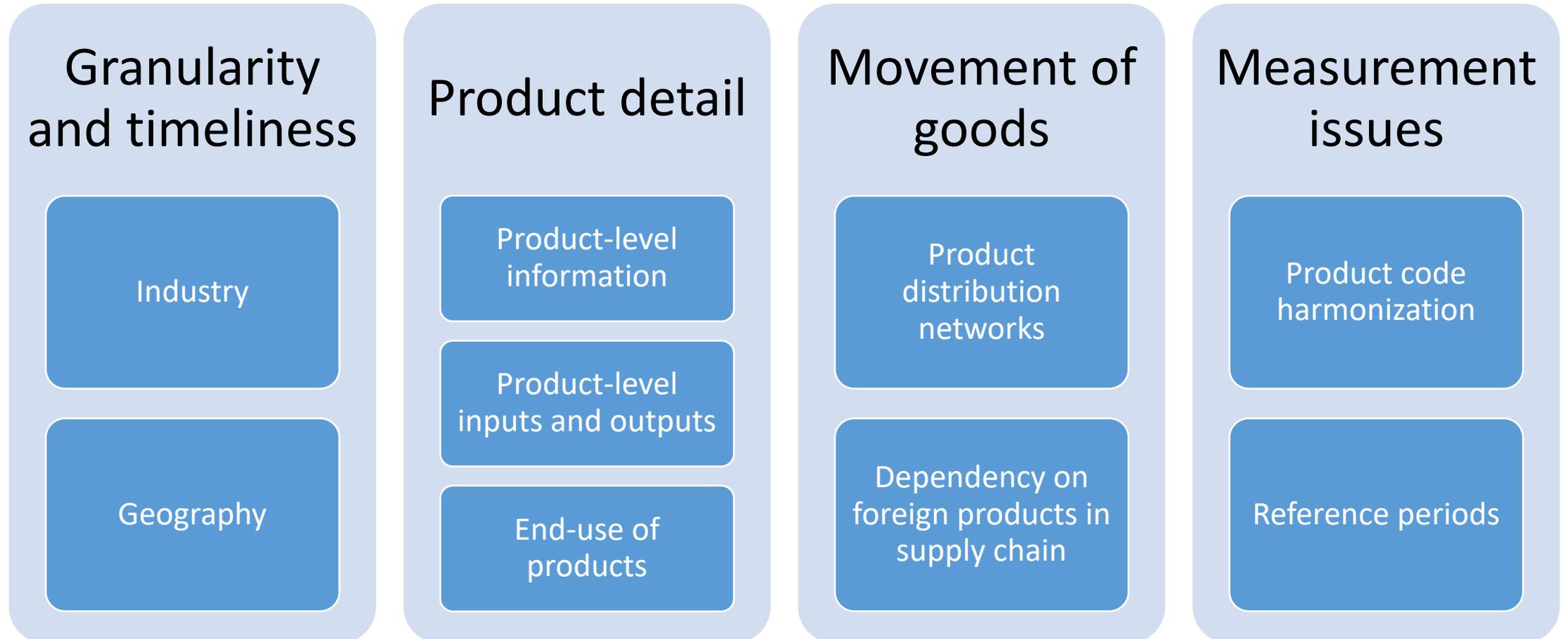
(BTOS)

LEHD / LODES

Economic Indicators

Community Resilience Estimates (CRE)

... but there are still a lot of data gaps

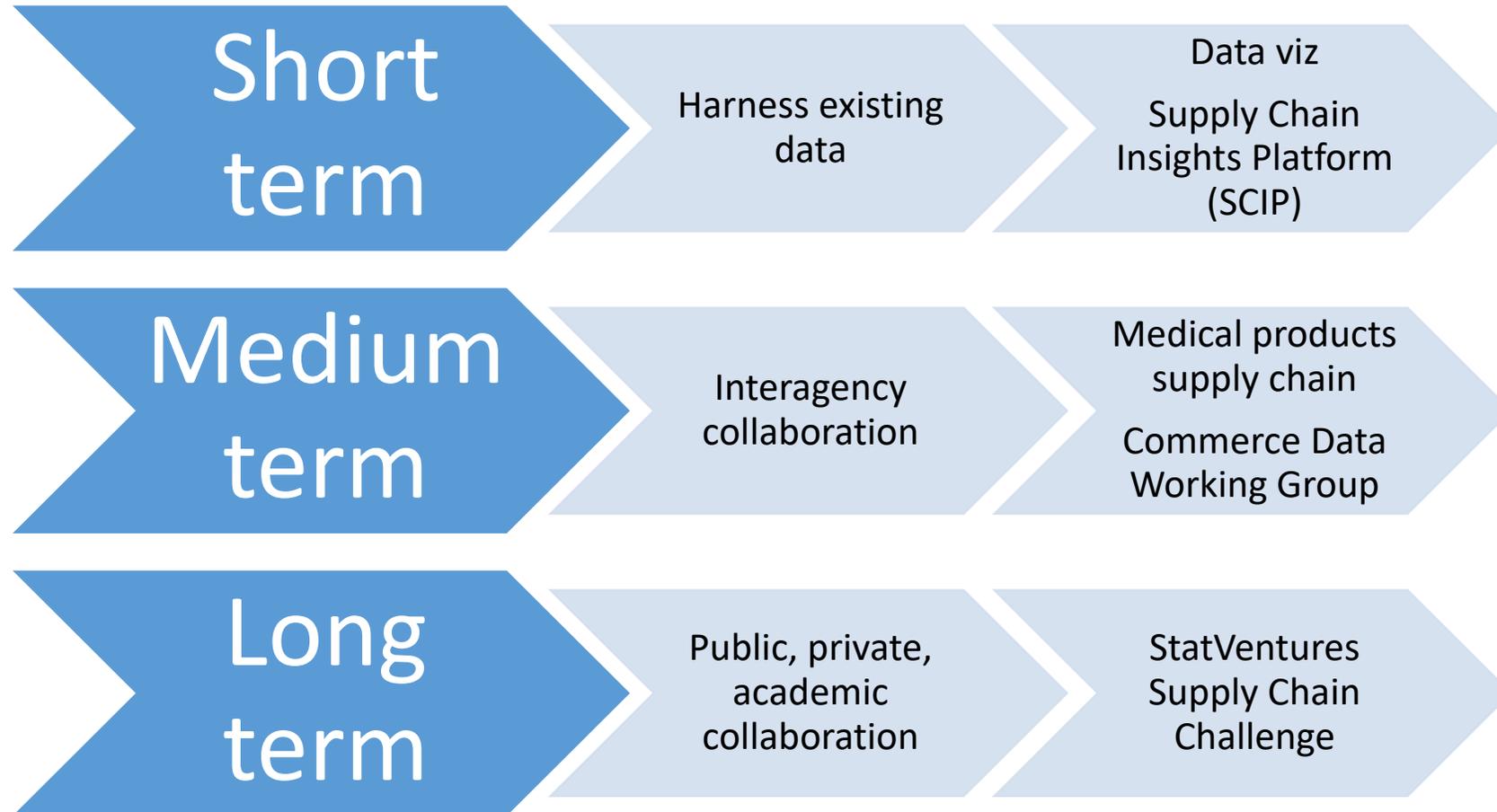


Vision: develop a comprehensive supply chain data infrastructure

Reactive → Proactive

Indirect → Direct

Roadmap



Supply chain stakeholders



FEMA



Supply Chain Insights Platform (SCIP)

Question: "What does the Census Bureau know about baby formula?"

Question: "What happens to the national supply chain if the Port of Miami goes down?"

What does the Census Bureau know about baby formula?

Supply Chain Insights Platform

baby formula Search

Industry **Product**

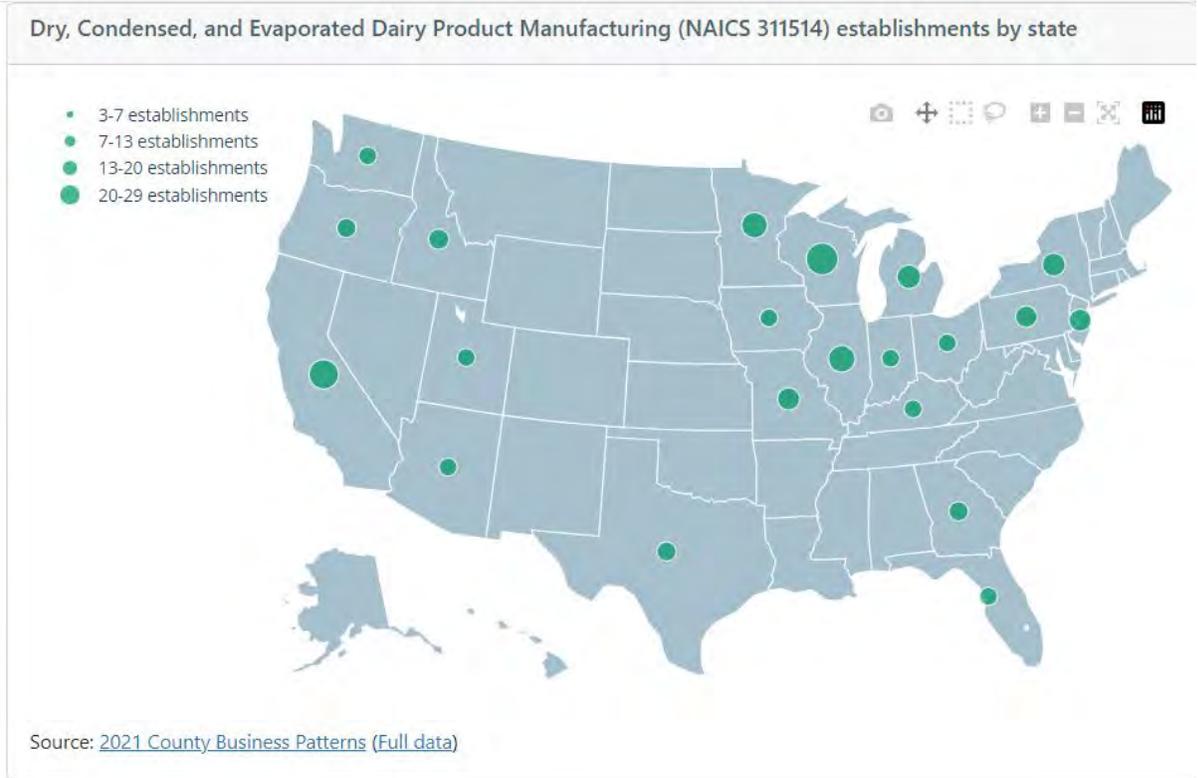
Industry codes

Dry, Condensed, and Evaporated Dairy Product Manufacturing (NAICS 311514)

Firms	Rank in subsector	Establishments	Rank in subsector
127	#32 of 43	179	#32 of 43
Source: 2017 Economic Census (Full data)			

Concentration score	Rank in subsector	Manufacturing capacity
708 (low)	#20 of 43	85%
Source: 2017 Economic Census (Full data)		Source: 2023 Quarterly Survey of Plant Capacity Utilization (Full data)

Specialty Canning (NAICS 311422)



* All data are publicly available, from published Census Bureau data products

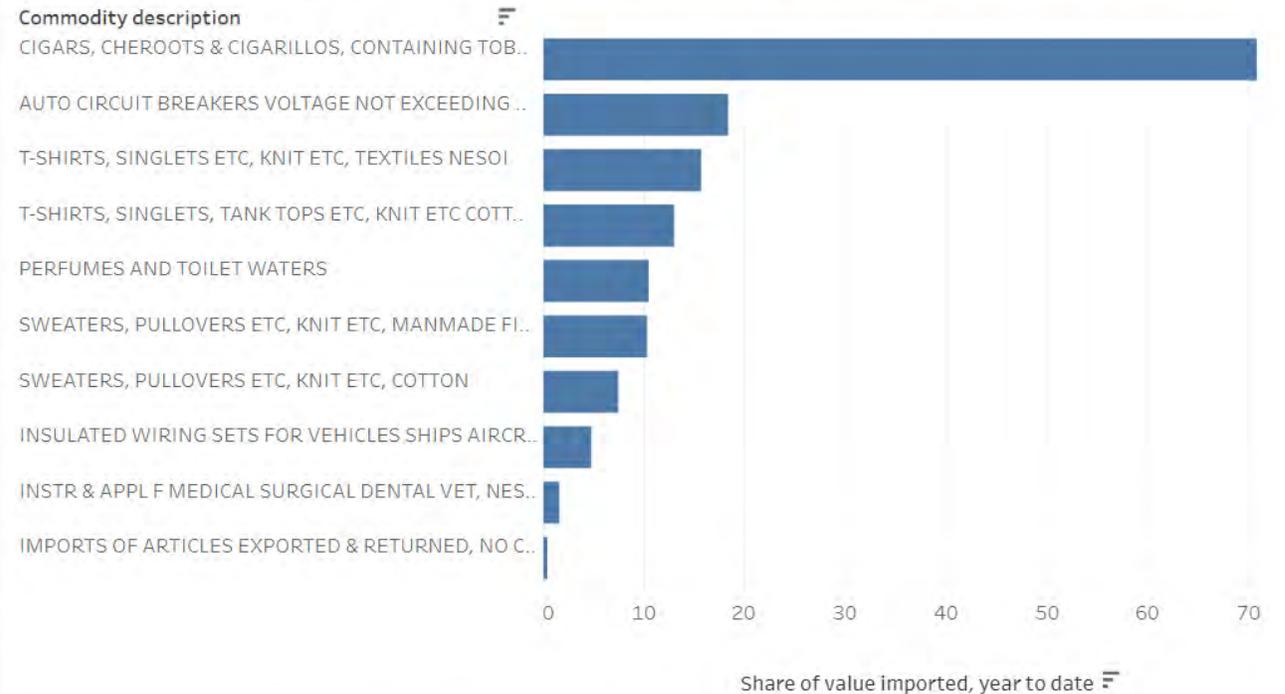
What happens if the Port of Miami goes down?

Click on a port on the map to see the key commodities imported there

US Ports by total imports, year to date



Top 10 nationally significant imported commodities for selected port
Percent of national import value of highest-value commodities imported at this port, Q1-Q3



Note: Coverage period is January-September 2022. Commodities shown are the 10 commodities with the largest import value during the coverage period at the selected port.

Supply Chain Insights Platform (SCIP) recap

Motivation:

- Real demands from data users

Solution:

- Bring together existing published/publicly available data on supply chain and surface in easy-to-use, interactive manner
- Surface data across silos from Census and other gov agencies
- Present holistic views of supply chain that answer real-world questions

Supply Chain Insights Platform (SCIP)

Next steps:

- Publish interactive data viz; leverage Census Business Builder
- Bring in more data (Census Bureau + other gov data)
- More interactivity
- Answer more questions
- Identify data gaps

Interagency collaboration

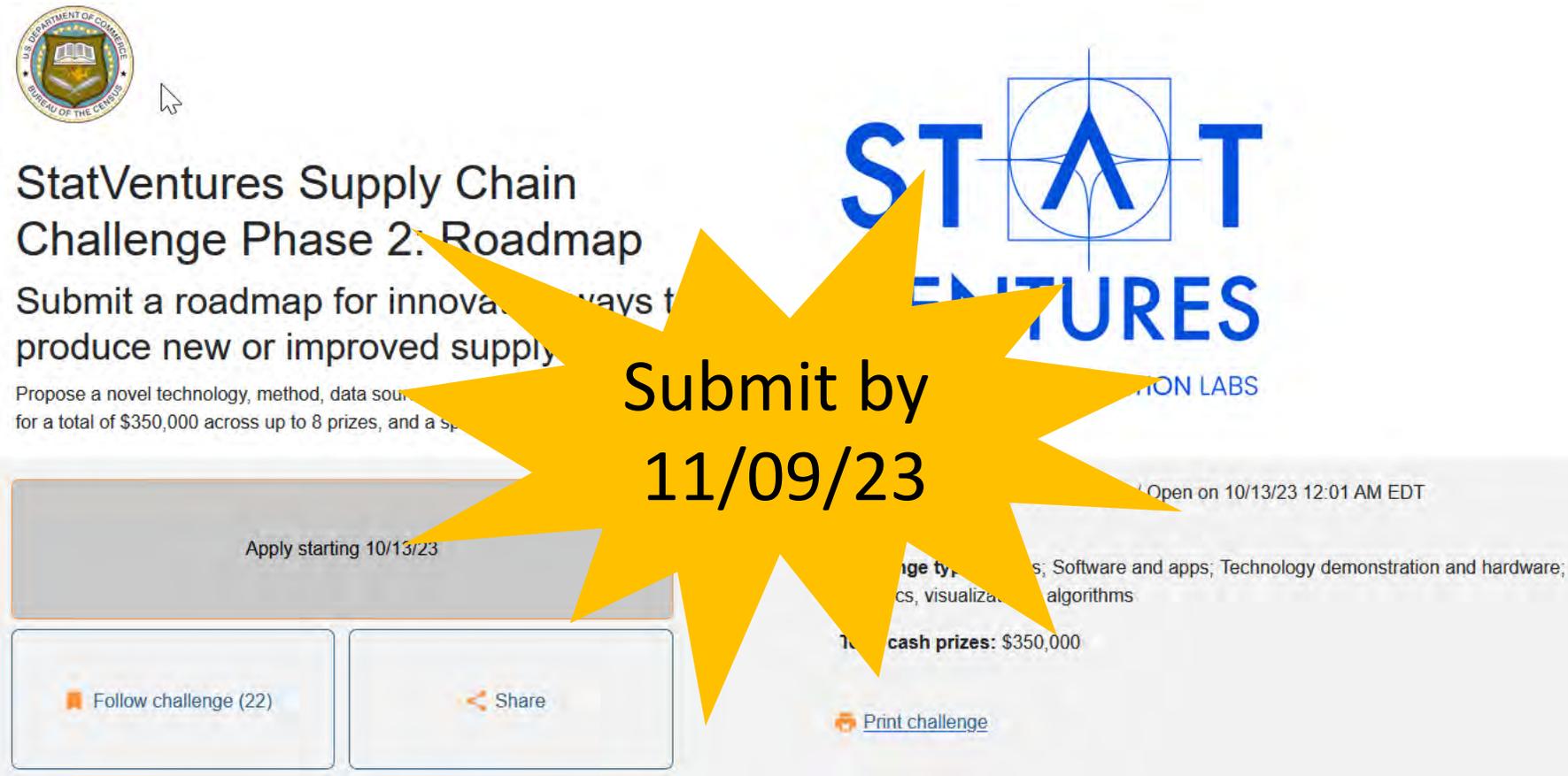
Department of Commerce Commercial Data Working Group

- Challenge: Agencies need similar commercial data but data access is siloed
- Opportunity: Share data across DOC; focus on supply chain

Medical product supply chain resilience

- Challenge: Are key imported medical products vulnerable to potential supply chain disruptions?
- Opportunity: Harness data assets across government to answer this question

StatVentures Supply Chain Challenge



 StatVentures Supply Chain Challenge Phase 2. Roadmap

Submit a roadmap for innovative ways to produce new or improved supply chain solutions.

Propose a novel technology, method, data source, or tool for a total of \$350,000 across up to 8 prizes, and a special prize of \$100,000.

Submit by 11/09/23

Apply starting 10/13/23

Challenge type: Software and apps; Technology demonstration and hardware; Data science, visualization, and algorithms

Total cash prizes: \$350,000

Open on 10/13/23 12:01 AM EDT

[Follow challenge \(22\)](#) [Share](#) [Print challenge](#)

Conclusion and next steps

The Census Bureau is...

- Collaborating across public sector, private sector, and academia
- Leveraging data science methodologies
- Combining new and existing data assets
- Transforming the way the U.S. uses data to ensure its supply chain is resilient

... and we want to collaborate!

- Feedback on data needs and gaps
- Data sources to support integrated views

Thank you

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