

Supply Chain Initiatives at the U.S. Census Bureau

FESAC Meeting
June 14, 2024

Christian Moscardi – U.S. Census Bureau

Nidaal Jubran – U.S. Census Bureau



Cars, sugar and cruises: How the Port of Baltimore closure could hurt the economy



By [Mark Thompson](#) and [Chris Isidore](#), CNN

🕒 6 minute read · Updated 12:29 PM EDT, Wed March 27, 2024



StreamTime LIVE - Baltimore, MD 2024-03-26 01:28:58 EDT

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NPR SHOP

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The Census Bureau has a lot of supply chain data...



... and many supply chain stakeholders



FEMA

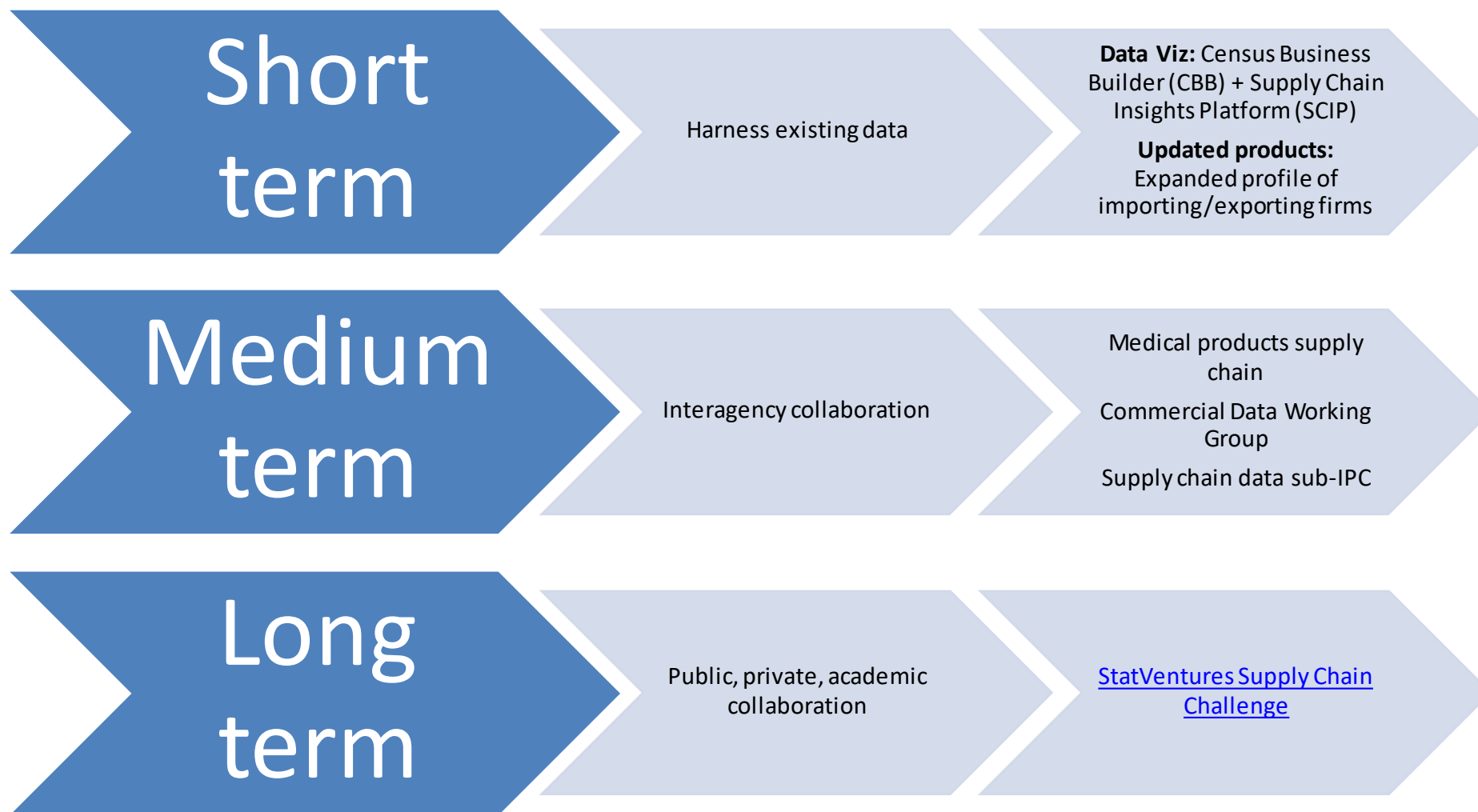


Vision: develop a comprehensive
supply chain data infrastructure

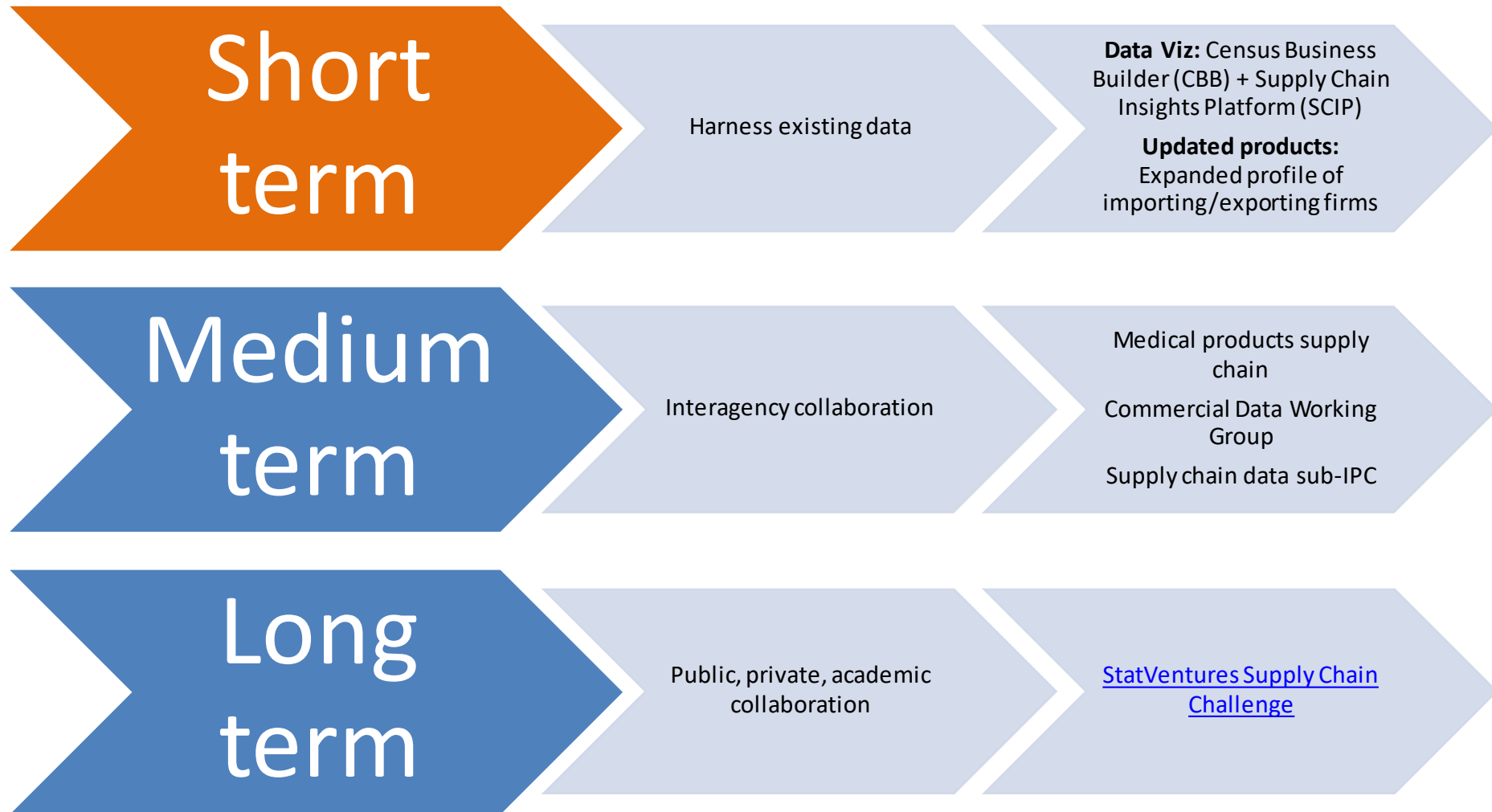
Reactive → Proactive

Indirect → Direct

Roadmap



Roadmap



Data viz: use cases

- "Tell us everything the Census Bureau knows about pharmaceuticals"
- "What are the supply chain impacts of severe weather in Southern California?"

Data viz: use cases

- **"Tell us everything the Census Bureau knows about pharmaceuticals"**
- "What are the supply chain impacts of severe weather in Southern California?"

Prototype tool: SCIP (Supply Chain Insights Platform)

- **What:** Internal prototype interactive data visualization platform that brings together siloed supply chain data and presents holistic views of supply chain that answer real-world questions
- **How:** harmonize data on each aspect of supply chain
 - Foreign trade, manufacturing, domestic movement of goods, sale of goods, and labor supply
- **Where and when:** goal is to have publicly available late CY 2024

Supply Chain Insights Platform

This dashboard presents Census information relevant to product supply chains. It includes information from economic surveys about the manufacture, supply, and use of products. [More ▼](#)

Search

Pharmaceuticals

By Industry

By Product

Industry codes

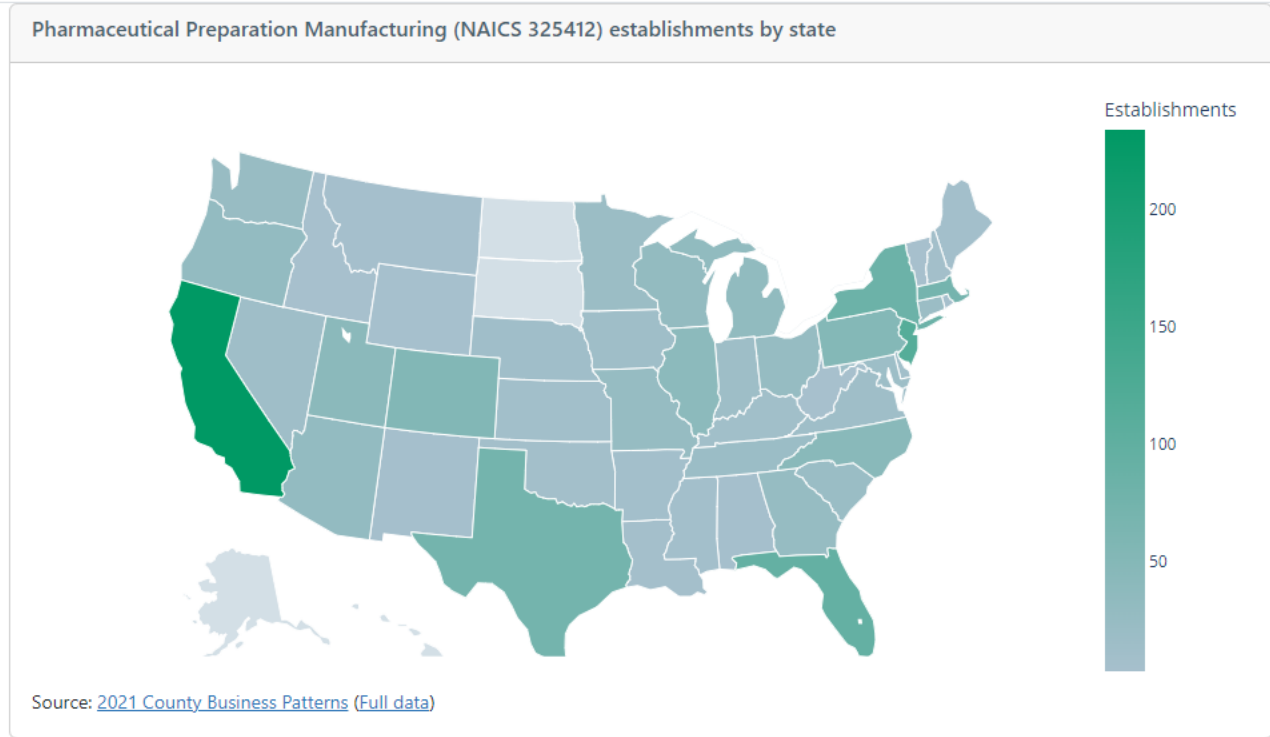
The North American Industry Classification System ([NAICS](#)) is a system for classifying business establishments.

Below are the top 3 industries which manufacture pharmaceuticals by revenue.

Pharmaceutical Preparation Manufacturing (NAICS 325412) ^

Firms ⓘ	Rank in subsector ⓘ	Establishments ⓘ	Rank in subsector
1033	#2 of 29 industries	1297	#1 of 29
Source: 2017 Economic Census (Full data)			
Concentration score ⓘ	Rank in subsector	Manufacturing capacity ⓘ	
662: (Low)	#10 of 29	72.6%	
Source: 2017 Economic Census (Full data)			
Source: 2023 Quarterly Survey of Plant Capacity Utilization (Full data)			

- Biological Product (except Diagnostic) Manufacturing (NAICS 325414) ▼
- Medicinal and Botanical Manufacturing (NAICS 325411) ▼



Supply Chain Insights Platform

This dashboard presents Census information relevant to product supply chains. It includes...

Enter a product Search

Pharmaceuticals

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Enter a product

Pharmaceuticals

By Industry

Data gap: discoverability

1033 #2 of 29 industries

662: (Low) #10 of 29

1297 #1 of 29

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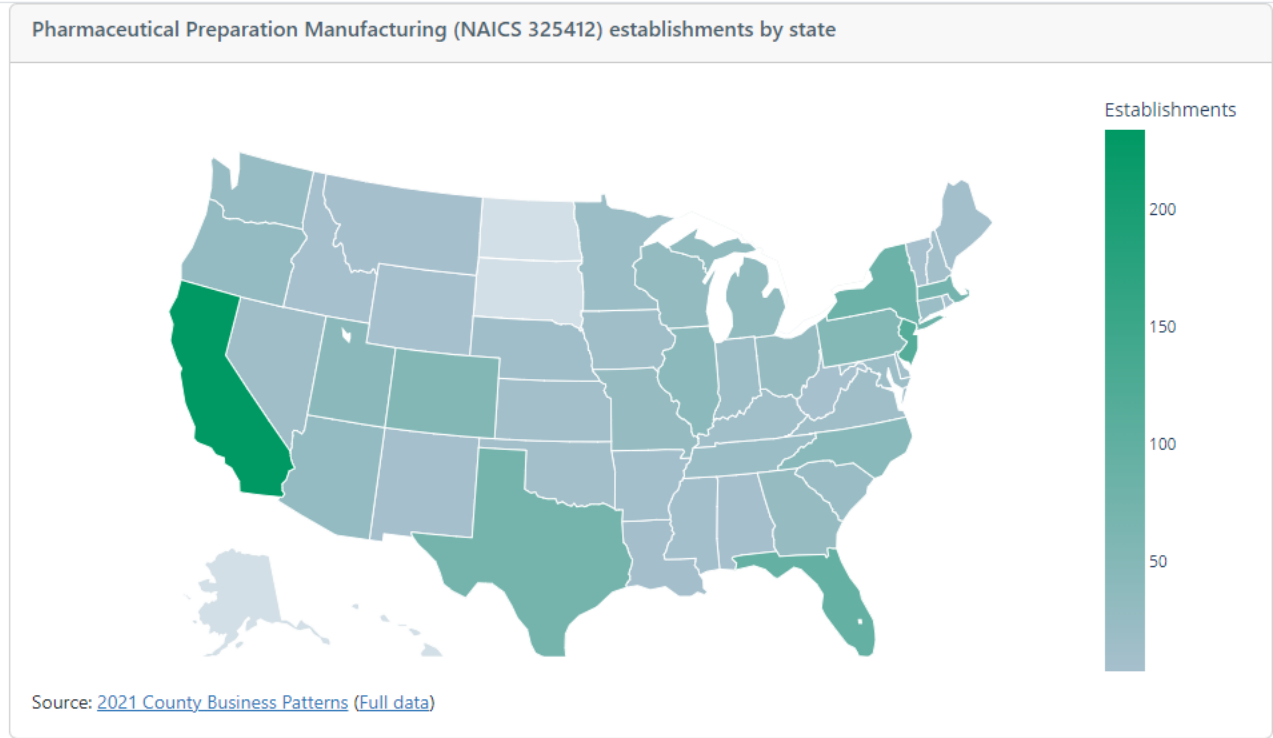
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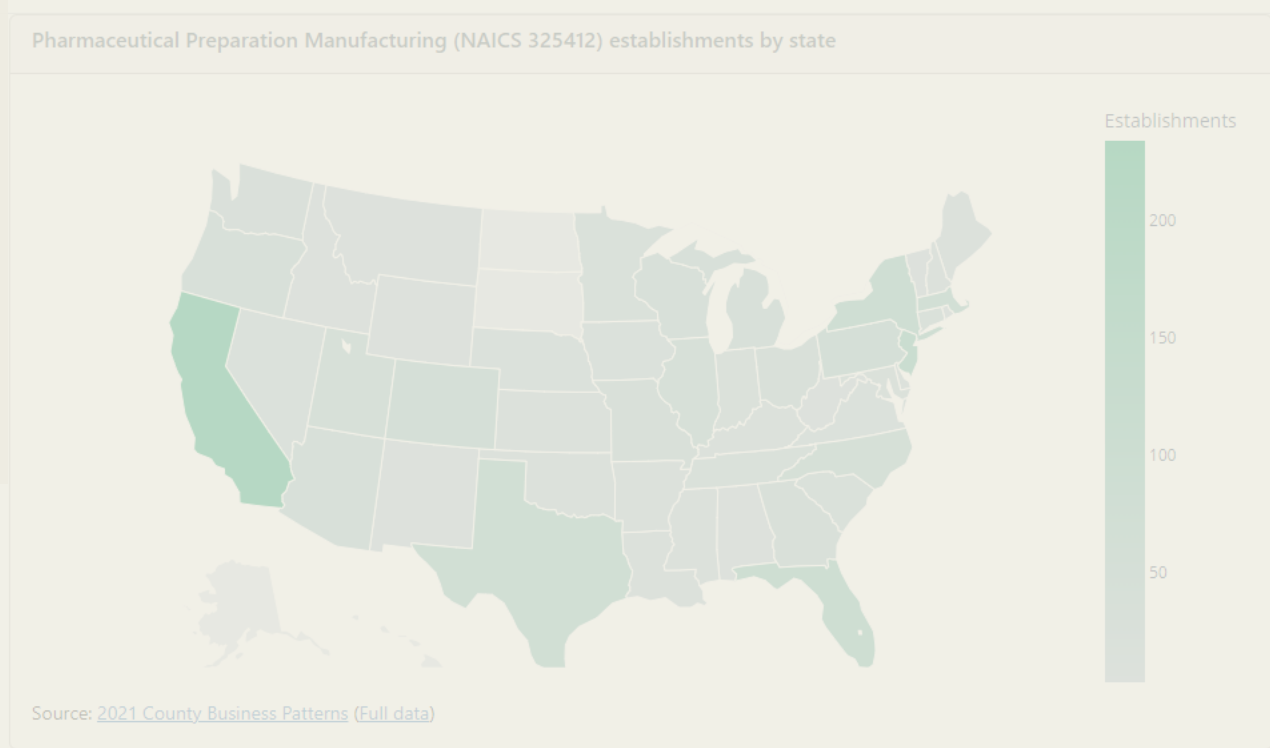
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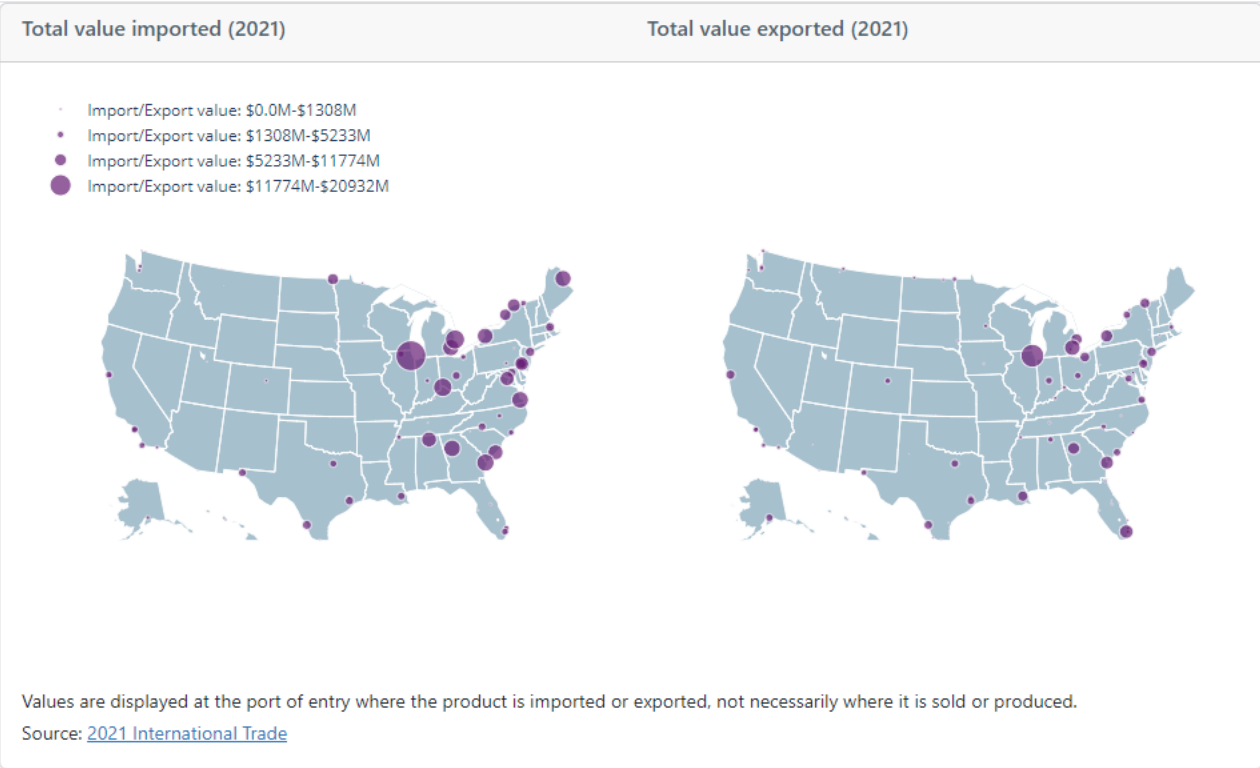
Search

Pharmaceuticals

By Industry

By Product

Product codes	
⊞ HS 300490: MEDICAMENTS NESOI, MEASURED DOSES, RETAIL PK NESOI ⊞ NAPCS Collection Code 2010325000: Manufacturing of pharmaceutical preparations, affecting parasitic and infective diseases, for human use (excluding diagnostics)	
Annual value of domestic manufacturing ⊞	Percent of supply produced domestically ⊞
\$29.5M Source: 2021 Annual Survey of Manufactures (Full data)	0.073%
Annual imports	Annual exports
\$65169M Source: 2021 International Trade	\$25057M
Domestic supply ⊞	
\$40142M	



keys about the manufacture, supply, and use of products. [More](#) ▼

Data gap: interoperability

By Industry

By Product

Product codes

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Annual value of domestic manufacturing ⊖

Percent of supply produced domestically ⊖

\$29.5M

0.073%

Source: [2021 Annual Survey of Manufactures \(Full data\)](#)

Annual imports

Annual exports

\$65169M

\$25057M

Source: [2021 International Trade](#)

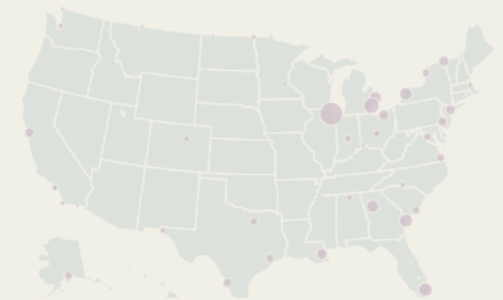
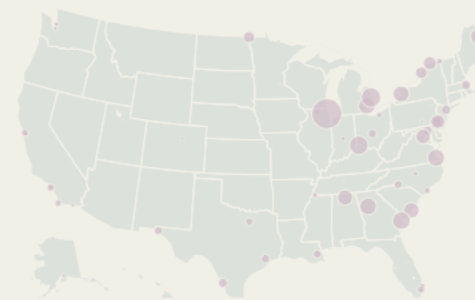
Domestic supply ⊖

\$40142M

Total value imported (2021)

Total value exported (2021)

- Import/Export value: \$0.0M-\$1308M
- Import/Export value: \$1308M-\$5233M
- Import/Export value: \$5233M-\$11774M
- Import/Export value: \$11774M-\$20932M



Values are displayed at the port of entry where the product is imported or exported, not necessarily where it is sold or produced.

Source: [2021 International Trade](#)

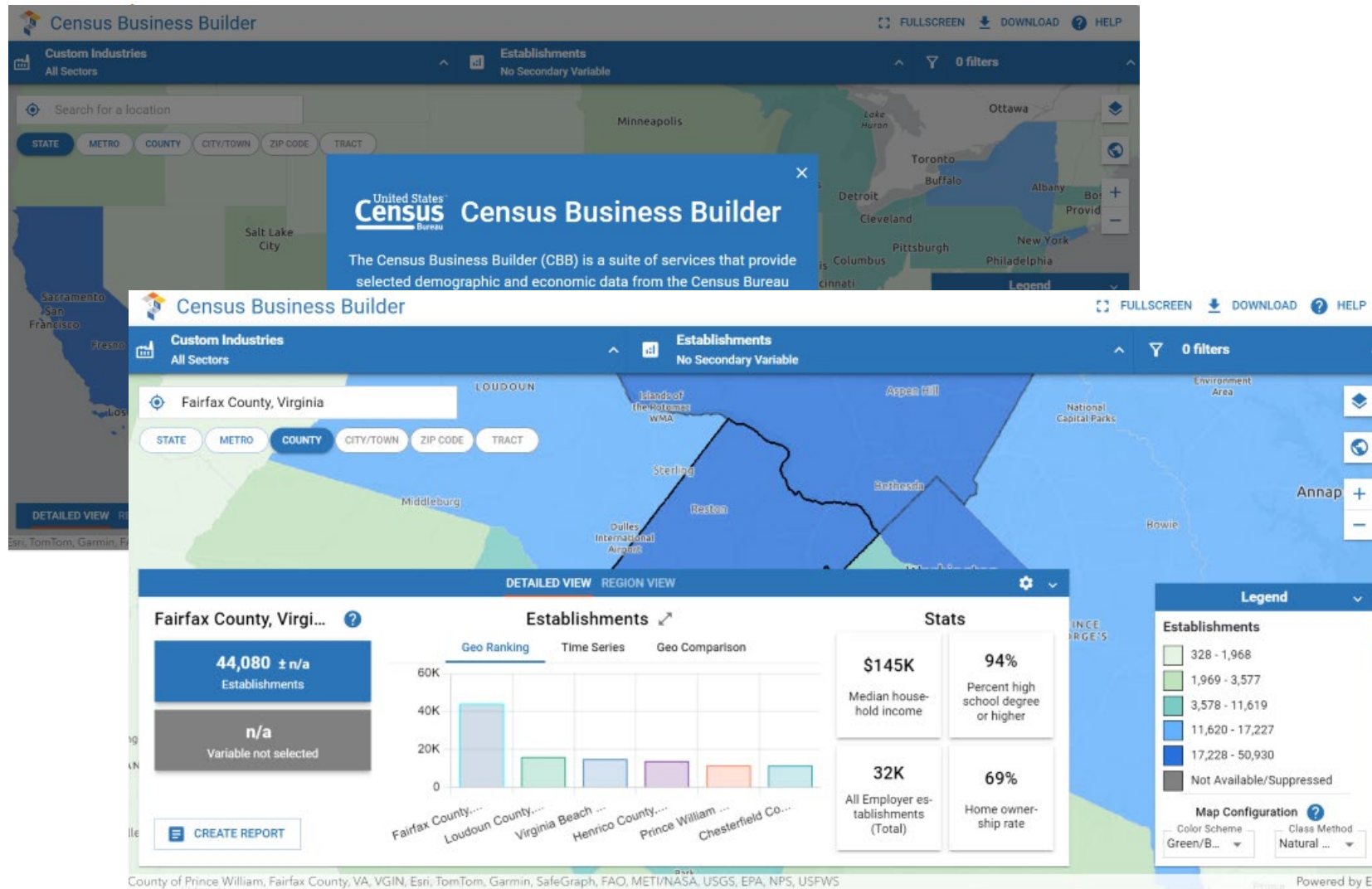
Data viz: use cases

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Census Business Builder 5.5

Guiding Principles

- Easy to use
- Customer focused
- Provide access to Census data and more
 - BLS, USDA, & third party
- Leverage existing Census investments
 - Esri, API
- Use latest technology
 - Cloud

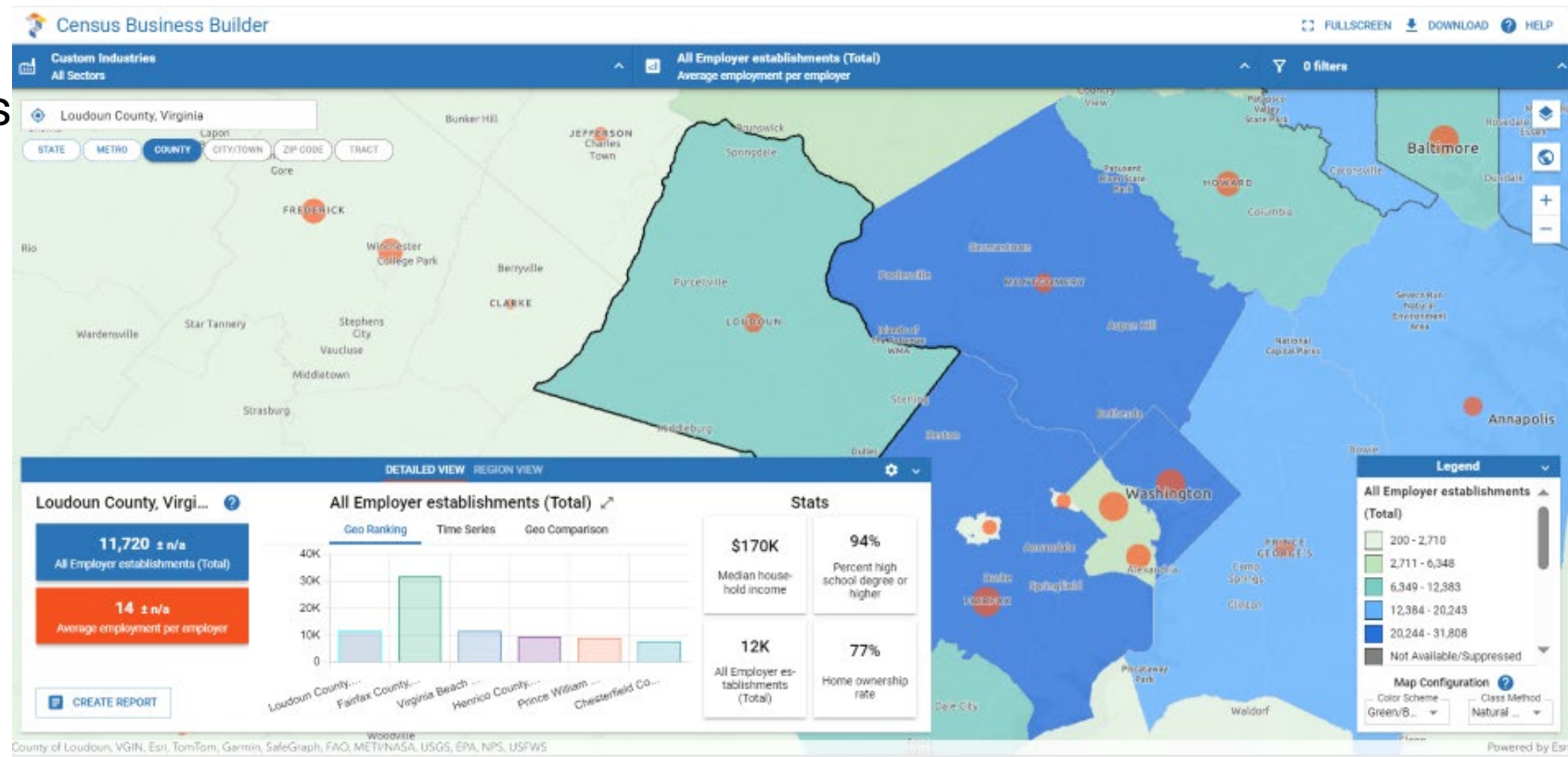


CBB Home Page

<https://www.census.gov/data/data-tools/cbb.html>

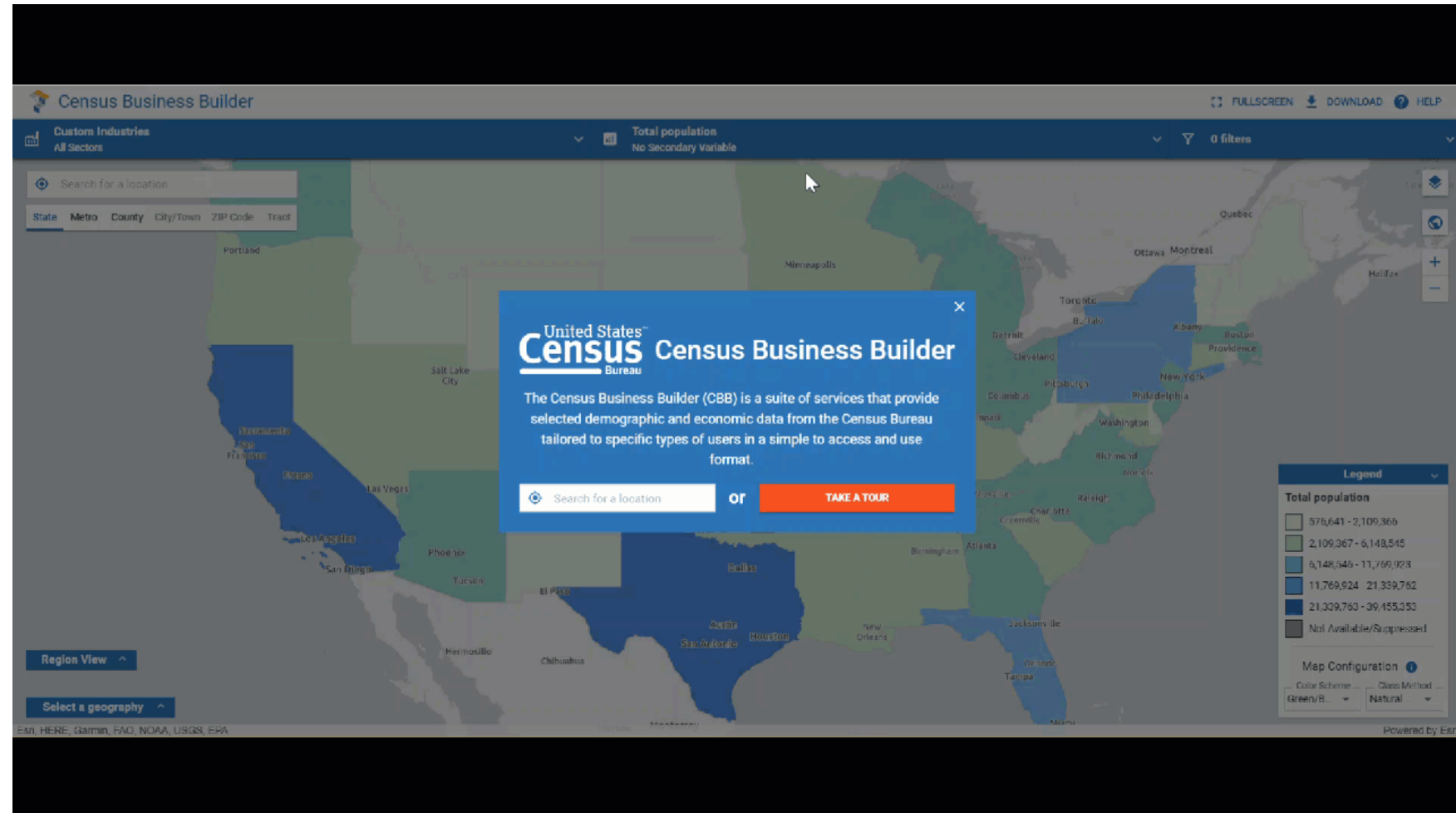
CBB User Experience

- Useful
 - Business plans
 - Grant applications
 - Economic Development Planning
 - Emergency Preparedness
- Easy to Locate
 - Census.gov
 - Search engines
- Accessible
 - Mobile optimized
 - 508 compliant
- Credible
 - Census data
- Valuable
 - Mission Critical



CBB - Tour

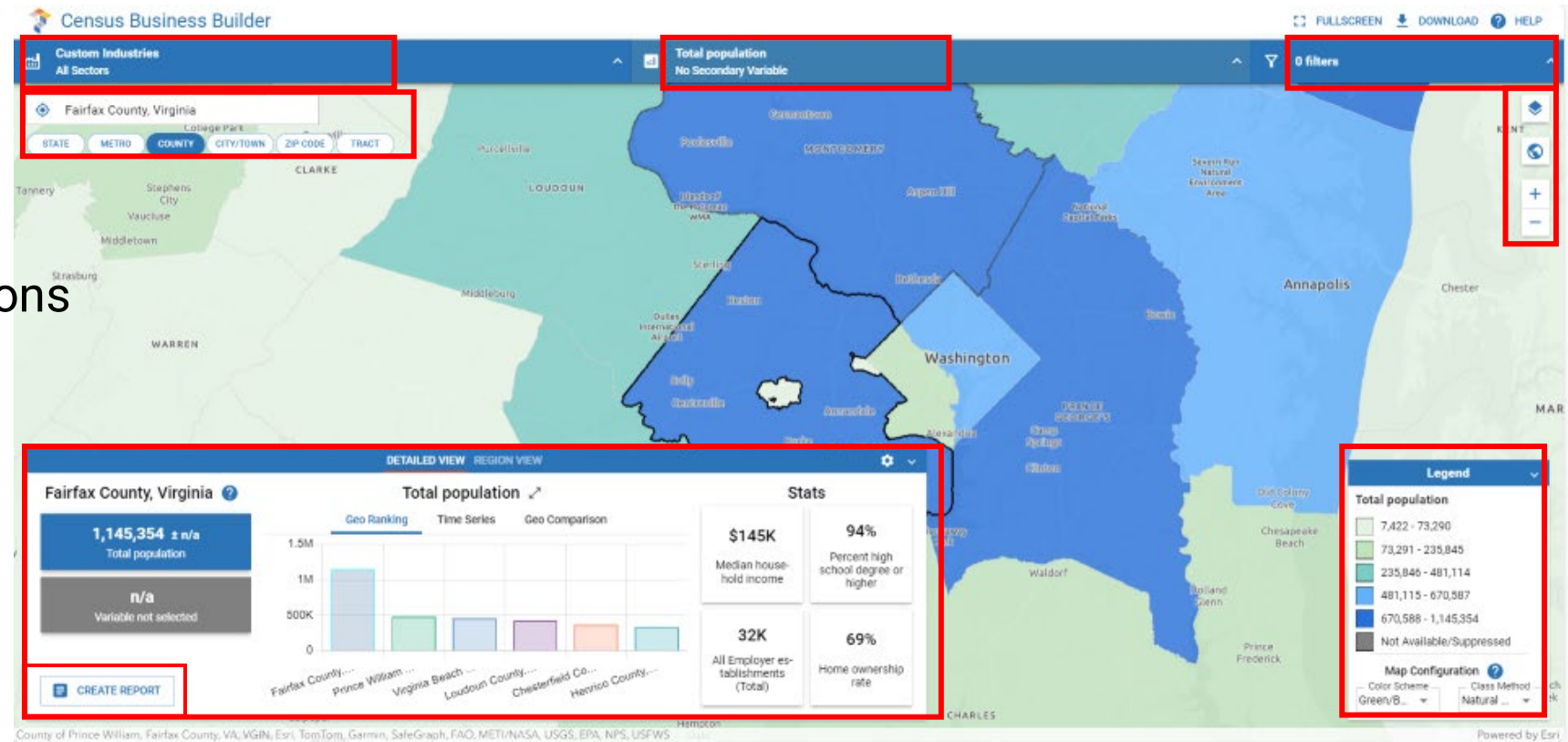
- Tour will walk you through the core functionality of the application



CBB – Key Features

Map page

- Dashboard
- Region View
- Geographic Levels
- Industry Cluster
- Map Variables options
- Filter Menu
- Map Buttons
- Map Legend
- Reports



CBB – Reports

Reports

- Report sections, interactive charts, customizing, and bookmarking
- Single or multi-geography reports

 **Business Profile**
Museums, Historical Sites, and Similar Institutions - Arapahoe County, Colorado

HELPEXPORTSETTINGS

Table of Contents

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Consumers/Residents

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Socioeconomic Characteristics

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Consumer Spending

Consumer Spending

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What will I find in this report?

My Customers

The Consumers/Residents section provides summarized demographic information for **Arapahoe County, Colorado**. This information provides a snapshot of the makeup of the community of potential customers in the area.

Museums, Historical Sites, and Similar Institutions is comprised of:
[Museums, Historical Sites, and Similar Institutions](#)

Business Summary

The Business Summary section provides summarized statistics about **Museums, Historical Sites, and Similar Institutions** businesses in **Arapahoe County, Colorado**. This information provides insight into the volume, finance, and diversity of ownership of the businesses in the area.

Business Comparison

The Business Comparison section provides tables of juxtaposed information for businesses across all sectors in **Arapahoe County, Colorado**. These tables provide a rapid way to compare and contrast data across industries in the area.

Consumer Spending

The Consumer Spending section provides a high-level overview of the spending patterns of consumers in **Arapahoe County, Colorado**.

Map

All Employer establishments (Total) in Arapahoe County, Colorado

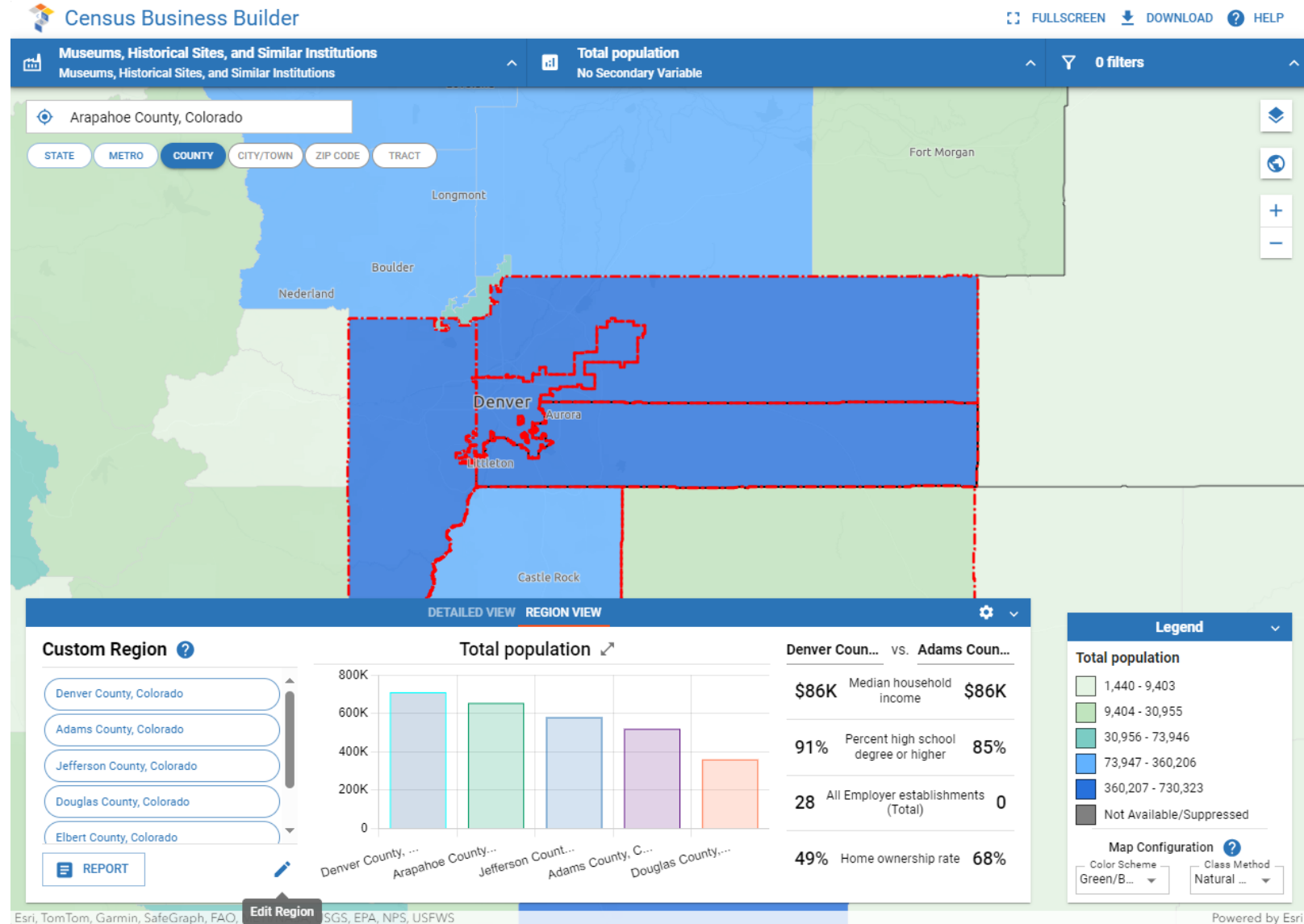


All Employer establishments (Total)
3
Not Available/Suppressed

CBB - Region Builder

Multiple options to build a region

- Option #1: build region of 2+ geographies of the SAME TYPE
- Option #2: build a Region of 2 or more geographies of 2 OR MORE types
- Option #3: build a Region using Prebuilt Regions



CBB – Disaster Impact

CBB can be used to assess the potential impact of disasters on surrounding communities.

Evaluate the supply chain impact on the area.

Assist in deciding where to allocate emergency funds.

PUBLISHED DOCUMENT	
       	AGENCY: U.S. Small Business Administration.
	ACTION: Notice.
	SUMMARY: This is a Notice of the Presidential declaration of a major disaster for Public Assistance Only for the State of California (FEMA-4769-DR), dated 04/13/2024. <i>Incident:</i> Severe Winter Storms, Tornadoes, Flooding, Landslides, and Mudslides. <i>Incident Period:</i> 01/31/2024 through 02/09/2024.
	DATES: Issued on 04/13/2024. <i>Physical Loan Application Deadline Date:</i> 06/12/2024. <i>Economic Injury (EIDL) Loan Application Deadline Date:</i> 01/13/2025.
	DOCUMENT DETAILS Printed version: PDF Publication Date: 04/19/2024 Agency: Small Business Administration Dates: Issued on 04/13/2024. Document Type: Notice Document Citation: 89 FR 28837 Page: 28837 (1 page) Agency/Docket Numbers: Disaster Declaration #20272 and #20273 CALIFORNIA Disaster Number CA-20012 Document Number: 2024-08400
DOCUMENT DETAILS	

<https://www.federalregister.gov/documents/2024/04/19/2024-08400/presidential-declaration-of-a-major-disaster-for-public-assistance-only-for-the-state-of-california>

CBB – Disaster Impact

California Severe Winter Storms, Tornadoes, Flooding, Landslides, and Mudslides, 1/31 – 2/9/24

- FEMA issued a Disaster Declaration for some counties in California due to the potential for economic injury caused by the severe winter storms.
- This disaster might have far-ranging effects for businesses throughout the state and surrounding areas.
- We can use Census Business Builder (CBB) to evaluate the potential impacts to these areas and identify vulnerabilities.

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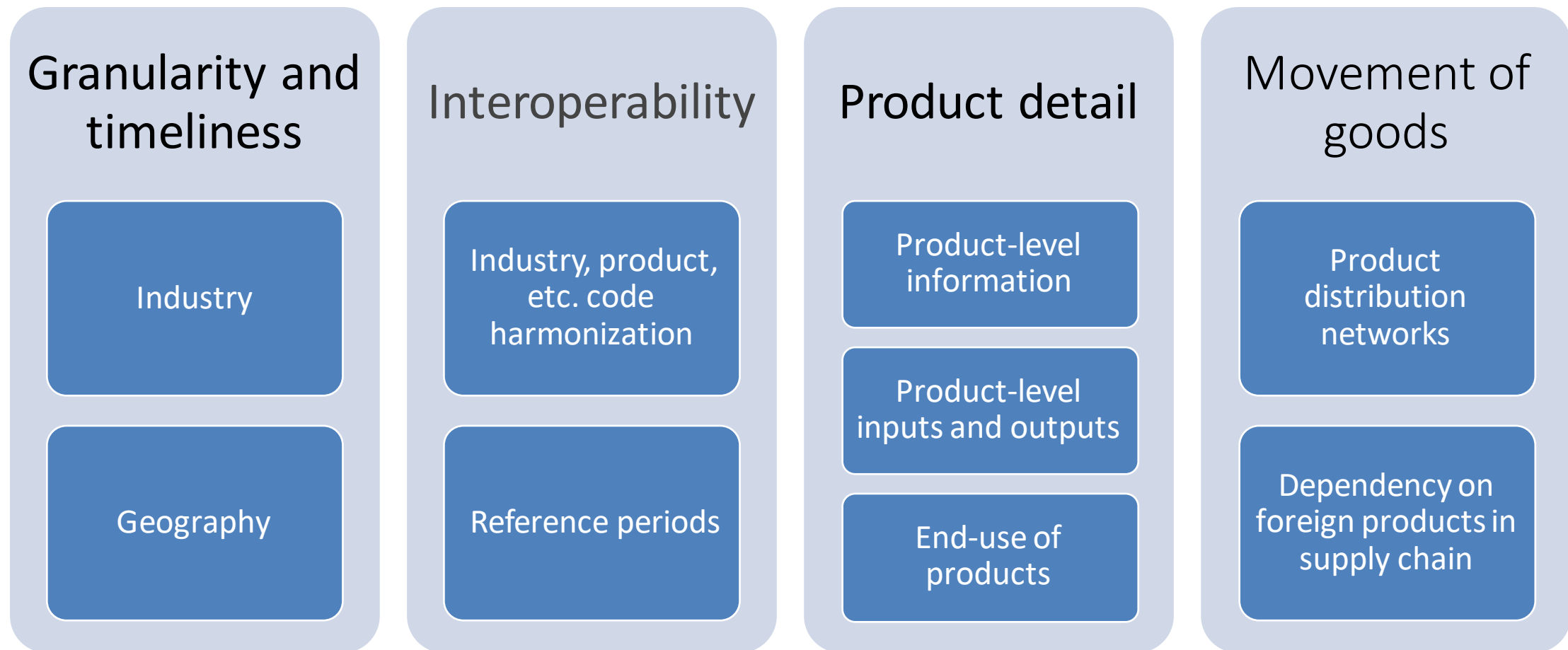
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Live Demo

Cbb.census.gov

There are still a lot of data gaps



Discussion questions

- What are the biggest challenges for supply chain analysis using Census data currently?
- How might Census produce data that enable more comprehensive supply chain analyses?
- How might Census enable better discoverability of its existing data assets?
- How might Census standardize/harmonize data with different vintages and geographic constraints?