

VIRTUAL SERIES VIRTUOSO



Colorado Workforce
Development Council



Drive | Lead | Succeed

V I R T U A L S E R I E S

Economic Development Council of Colorado

virtual!

MAPPING THE SUPPLY CHAIN

August 17, 2022 | 10 - 11:30 a.m.



Welcome! Thank you for attending today's session

While we wait for attendees to join, please introduce yourself in the chat section.

Include your:

- Name
- Organization or Company
- County you live and/or work in

Thank you!



@EDCofCO | #DLS2022 | #EDCCEvents



Kim Woodworth
Executive Director, EDCC
EDCCOnline.org

housekeeping items:

- All are muted for the general session for recording quality purposes.
- Ask questions! Type them into the CHAT section at the bottom of your screen.
- Provide your name and email address along with your question for follow up after session.
- Send questions to EDCC's Administrator bobbi.vandenhuevel@EDCCOnline.org if you have questions after today's session.
- Links to the recording, presentation, and follow up materials will be provided to today's attendees and located at https://bit.ly/DLS-VS_MappingSupplyChain
- And finally, follow today's discussion on our social media outlets [@EDCofCO](#), [#DLS2022](#), [#EDCCEvents](#)

- 
- A statewide, membership based, industry association that supports economic development efforts across Colorado.
 - Provide education, tools & resources, advocate for sound policy in support of economic development
 - We are rural and urban, public and private-sector, for profit and not-for-profit, and include individual communities, counties and regional organizations, local and state government, chambers of commerce, universities and private industry.

Who is EDCC?

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Learn more



2022 Events Calendar

<https://edcconline.org/events-calendar>



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been recognized by IEDC
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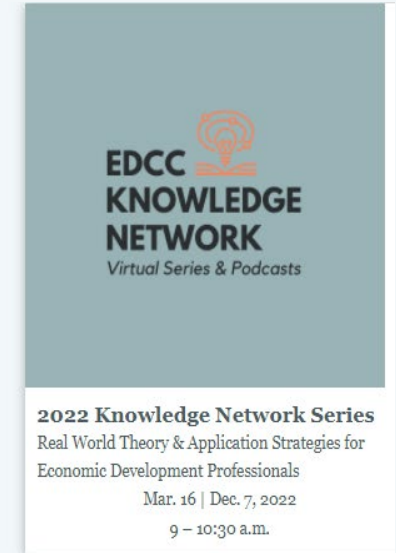
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MAPPING THE SUPPLY CHAIN

August 17, 2022 | 10 - 11:30 a.m.



Rob Newbold
Director of Client
Services
Manufacturer's Edge



Supply Chain Overview



Six key trends impacting global supply chains in 2022

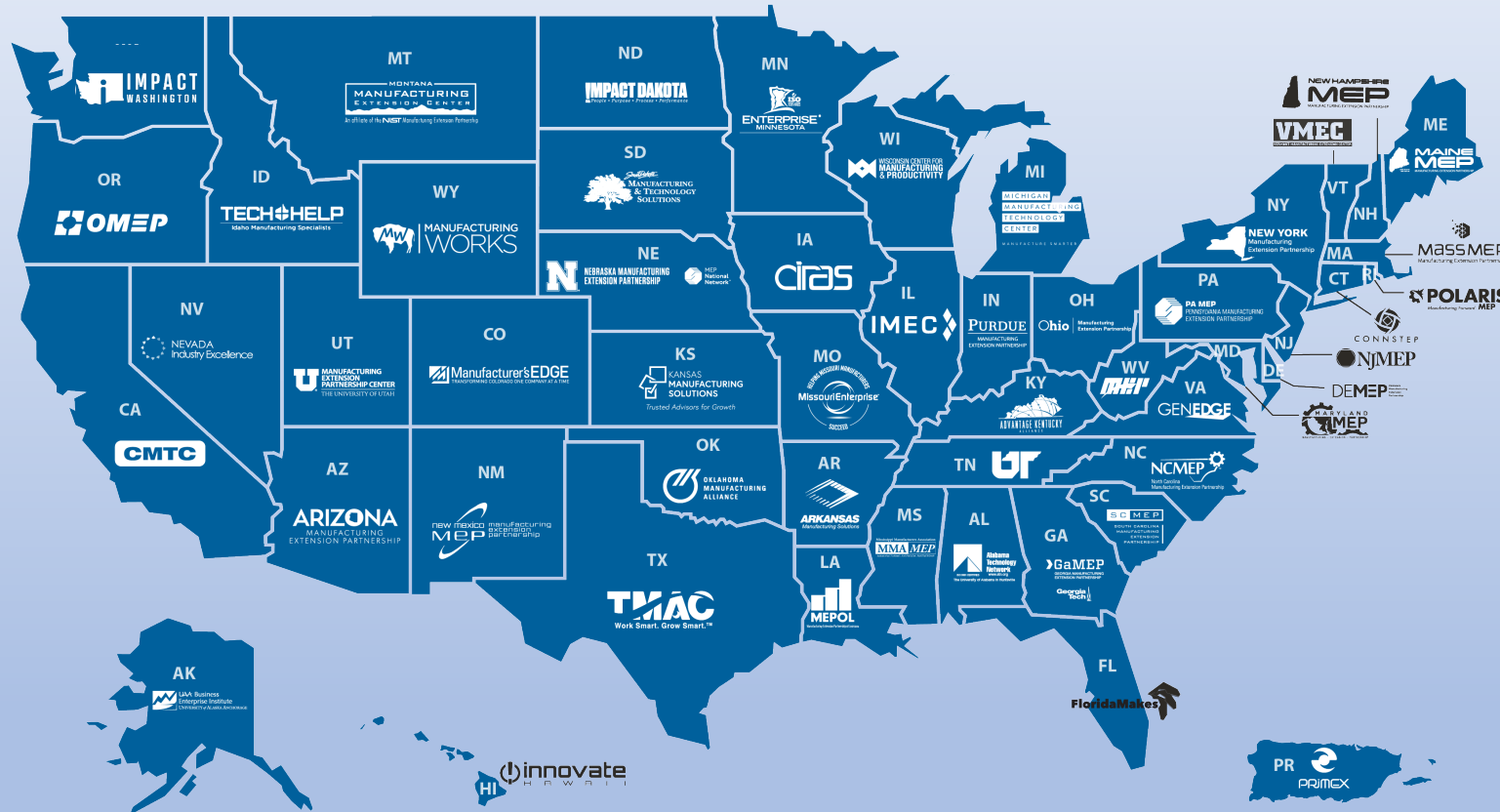
From logistics disruption, to workforce and labour



1. Logistics Disruptions
2. Production Delays
3. Over-reliance on a limited number of third-parties
4. Doubling down on technology investments
5. Commodity pricing
6. Workforce and Labor



MEP National Network



- 51 centers in all 50 states and in Puerto Rico
- Over 1,400 trusted advisors and manufacturing experts
- Nearly 2,100 service providers and partners

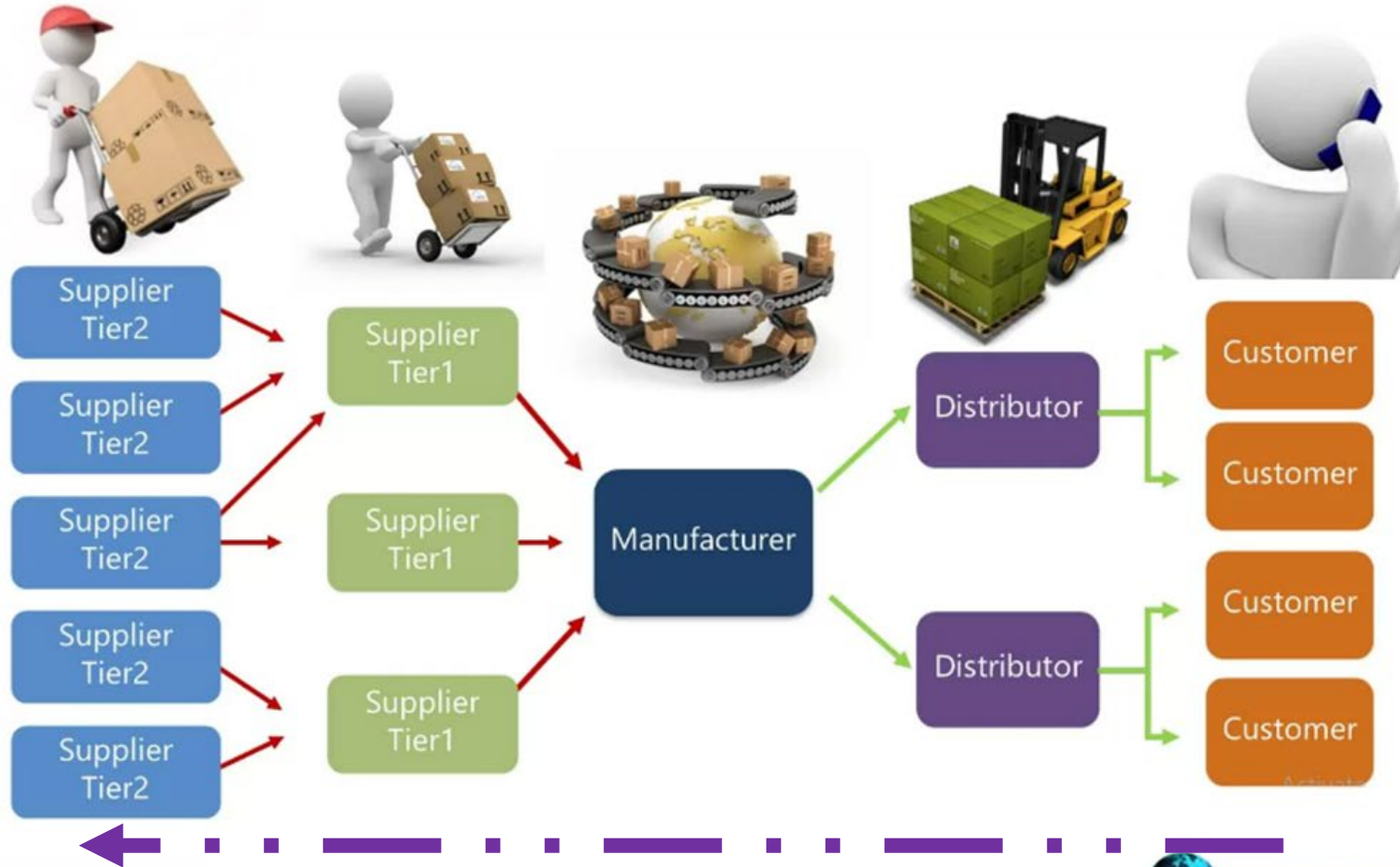
Supply Chain Overview

A **Supply Chain** is the sequence of processes involved in the production and distribution of a commodity.

A **Supply Chain Network** describes the movement of both materials & information, assessing the programs and policies that impact the supply chain. Most business units in an organization have an interest in efficient supply chain operations.

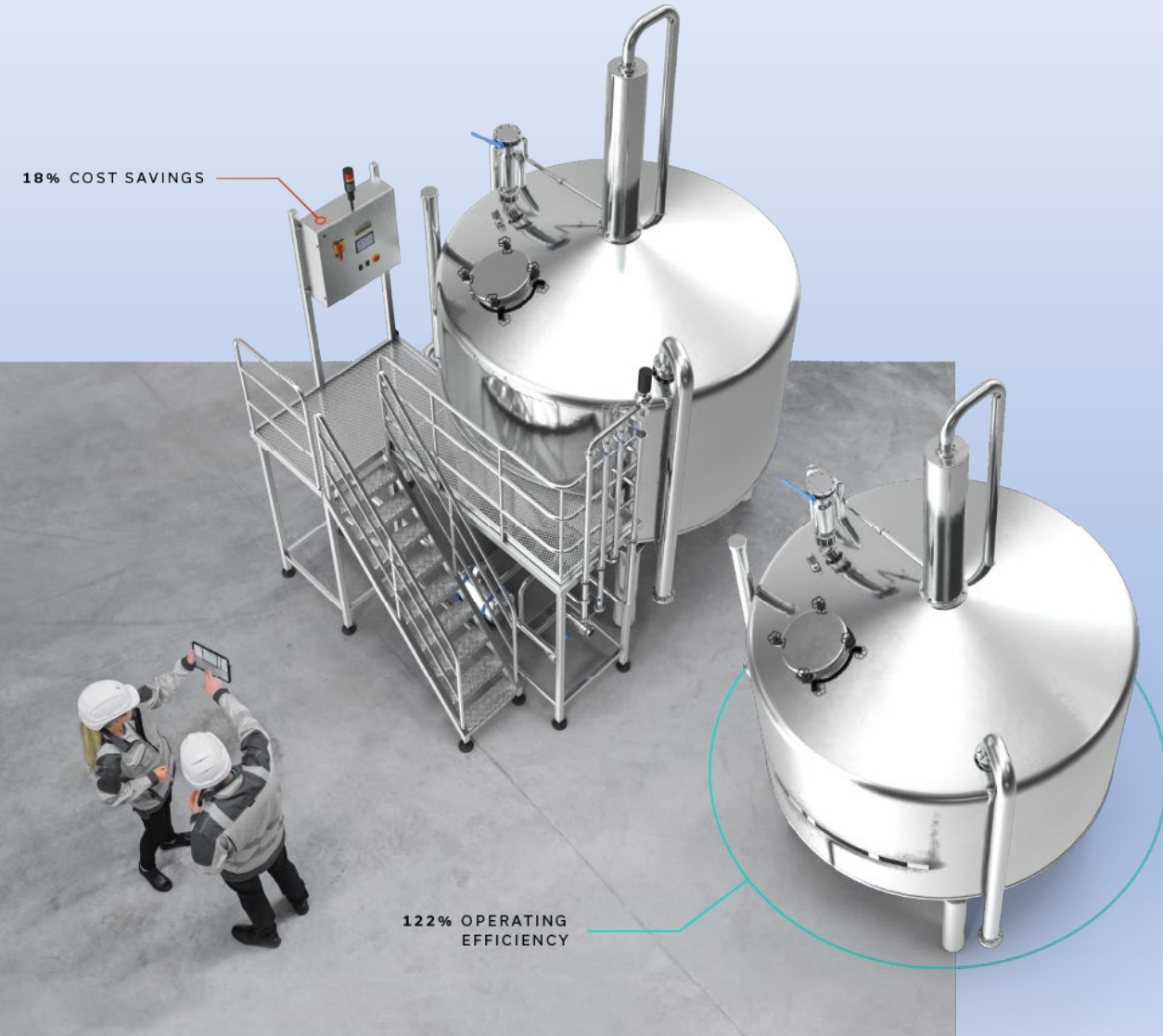


What is Supply Chain Management



Identifiers:
Materials Flow
Product Flow
Information Flow





Supply Networks

GOALS:

- Cost effectiveness
- Efficiency & Productivity
- Quality
- Resilience & Risk Reduction

Supply Network Differences

Large and Small, Mid-size Manufacturers situations are dramatically different

Large Manufacturers

- Buying Power influences pricing, availability
- Dedicated supply chain staff manage long-term contracts
- Capital, cash flow is distributed
- Expansive product lines reduces risk of loss
- Able to have multiple vendors for materials

Small, Mid-Size Manufacturers

- Big buys to avoid price fluctuations
- Capital is tied up in materials, not products
- Owner, purchasing person – multiple roles
- Ineffective at policies, contractual negotiations
- Limited product lines & vendors raises potential of significant loss

Mapping Supply Networks

What can EDOs do in support of mapping the supply network to improve local economies?

State / National

- Trends & Data
- Policies & Practices
- MEP National Network Programs & People

Community

- Retention Solutions
- Expansion Solutions
- Attraction Solutions
- Sustainment

Manufacturer

- Assessment Tools
- Colorado Manufacturing Network
- Local Support



Nico Thomas

**Performance Analyst,
National Institute of
Standards and Technology
(NIST)**

U.S. Supply Chains: The Current Situation

NIST MEP

Mark Schmit

Nico Thomas

August 2022



MEP National Network



Centers located in all 50 states and Puerto Rico.



Public-private partnership with local flexibility.



Federal funds, state investments, and private sector fees cover services.



Market driven program that creates high value for manufacturers.



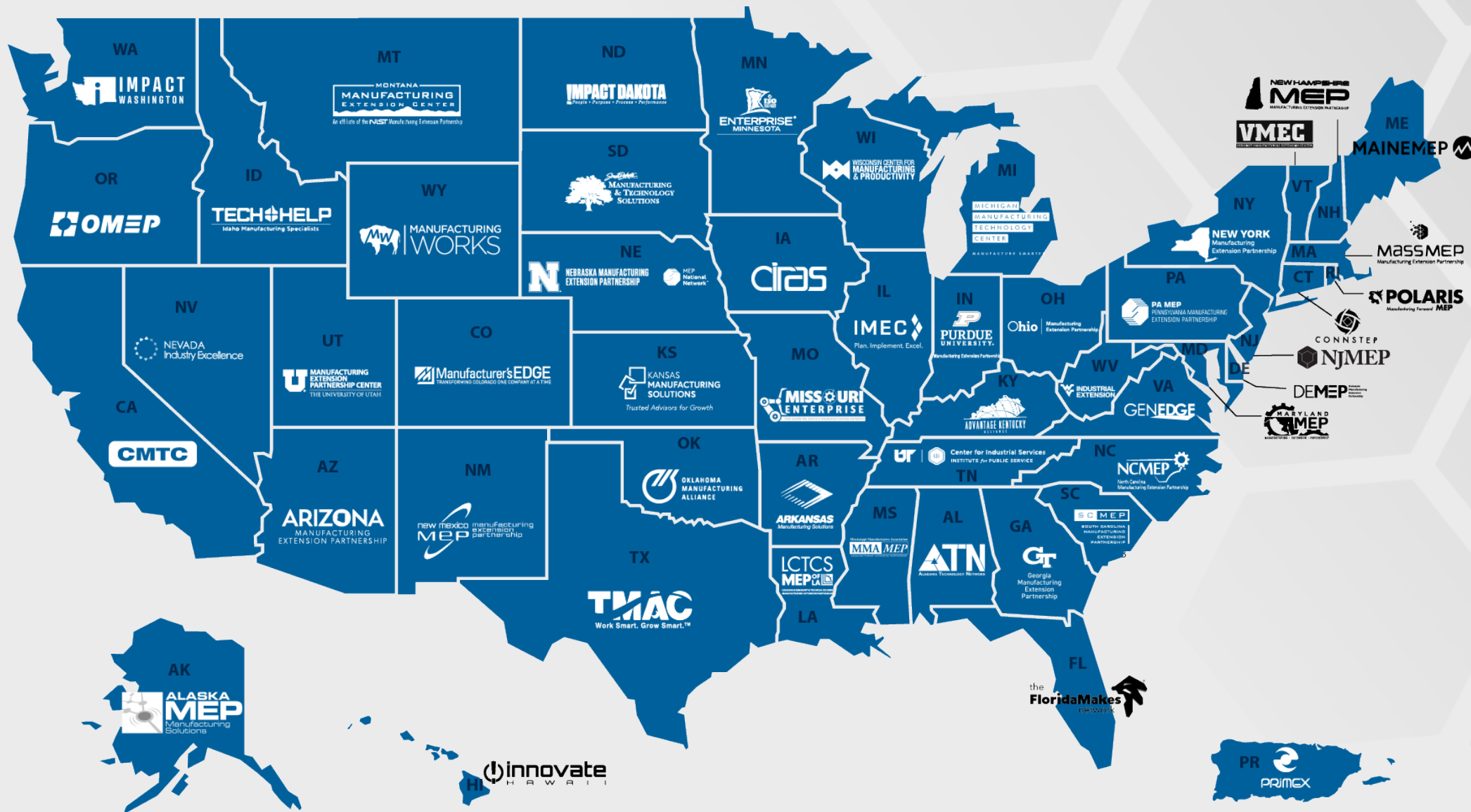
Leverage partners to maximize service offerings.



Transfer technology and expertise to manufacturers.



MEP National Network





MEP Services

Supply chain resilience is achieved by the supply chain working harmoniously

MEP services support the resilience of the manufacturers

MEP has extensive experience with and expertise in Supply Chain and Supplier Scouting services





Supply Chain Disruption

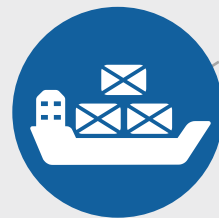
Shortages of critical parts and materials



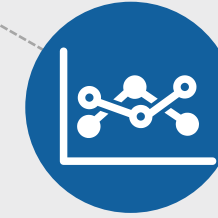
Difficult to adjust production capacity in response to fluctuating demand



Delayed shipments and longer lead times



Difficult to plan amid volatile customer demand





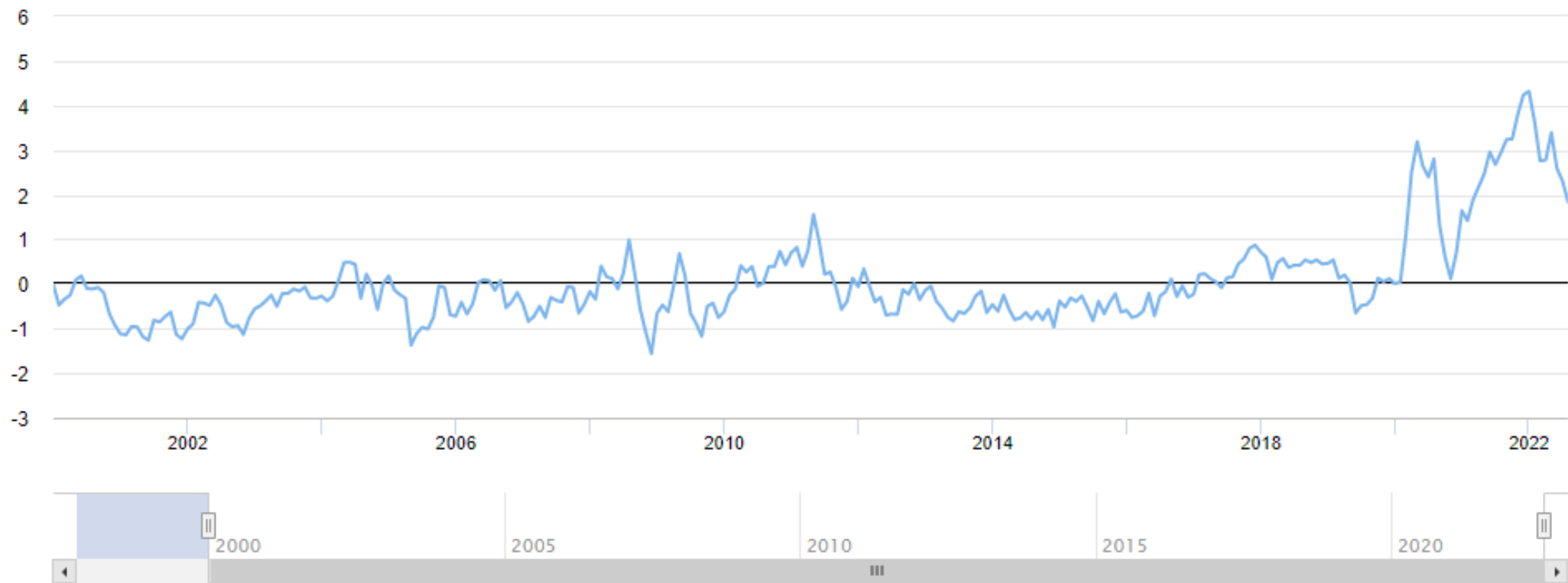
Supply Chain Pressure is Significant

Latest Update July 2022

Enter a date range to see monthly estimates or use the slider below to view a specific date range.

Standard deviations from average value

From To

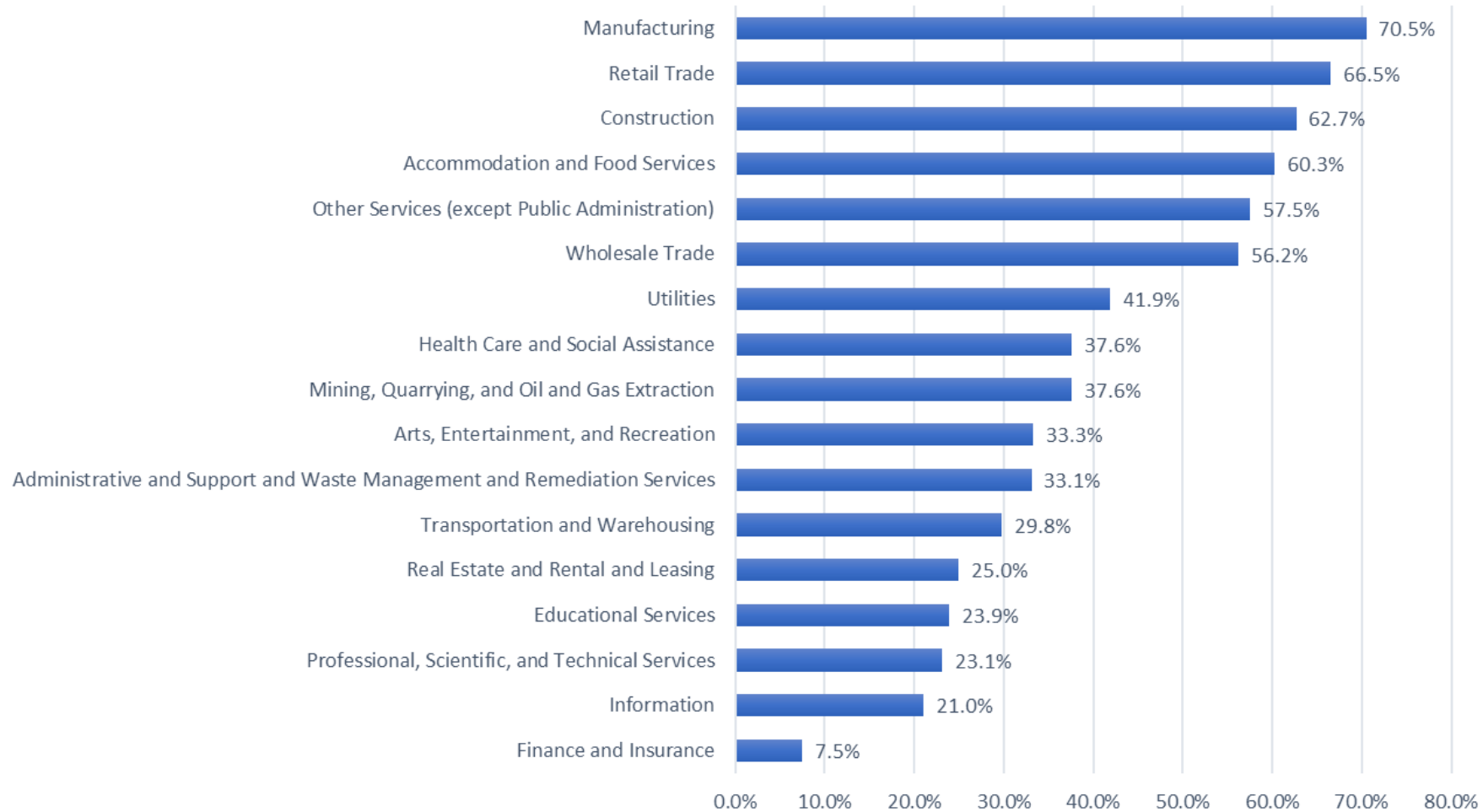




Census Small Business Pulse Survey – Nearly 45% of U.S. Businesses Have Had Recent Domestic Supplier Delays

Domestic Supply Chain Disruptions by Sector

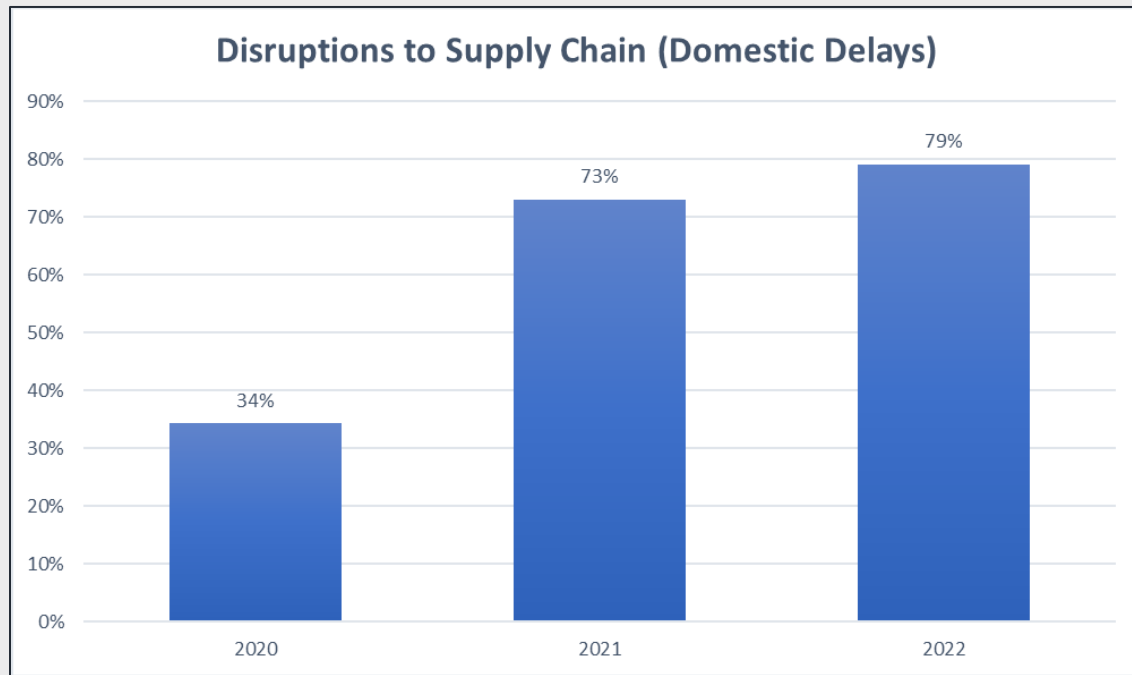
In the last week, did this business have domestic supplier delays? (Percent saying yes)



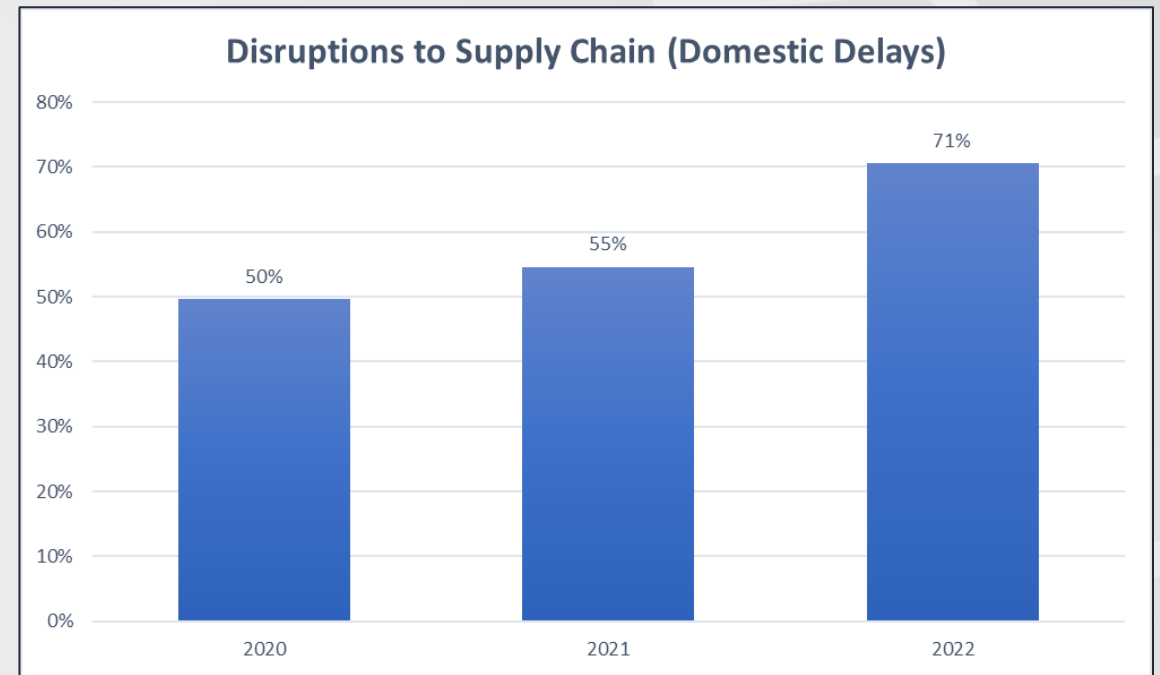


The Disruptions To Manufacturing Have Grown Over Time and Differ State to State

Colorado



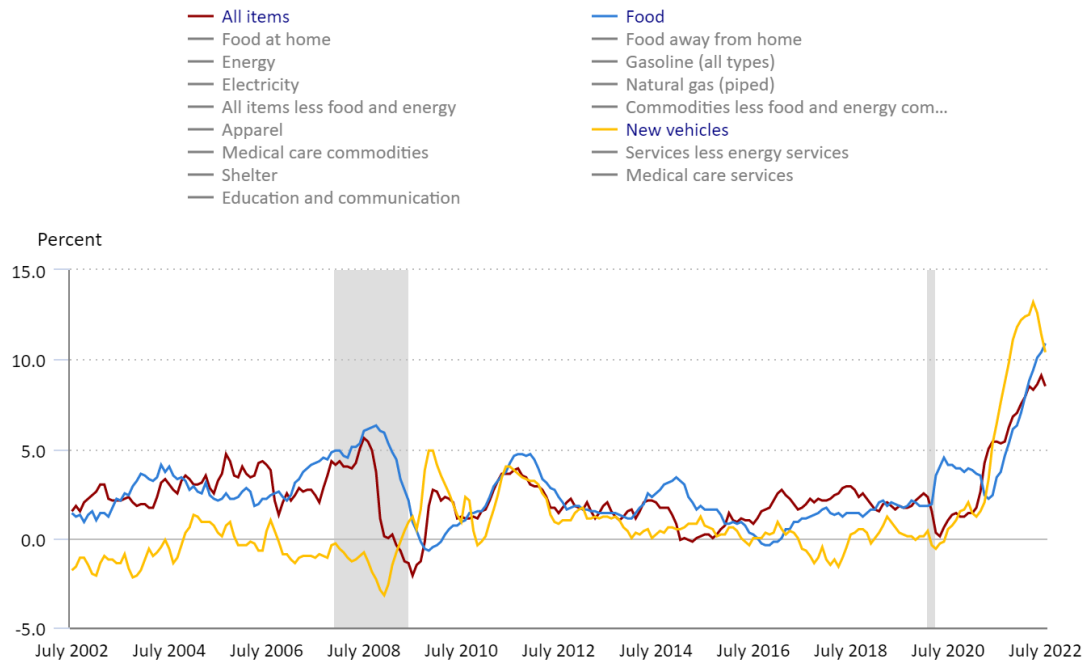
United States





Prices Are Growing Rapidly

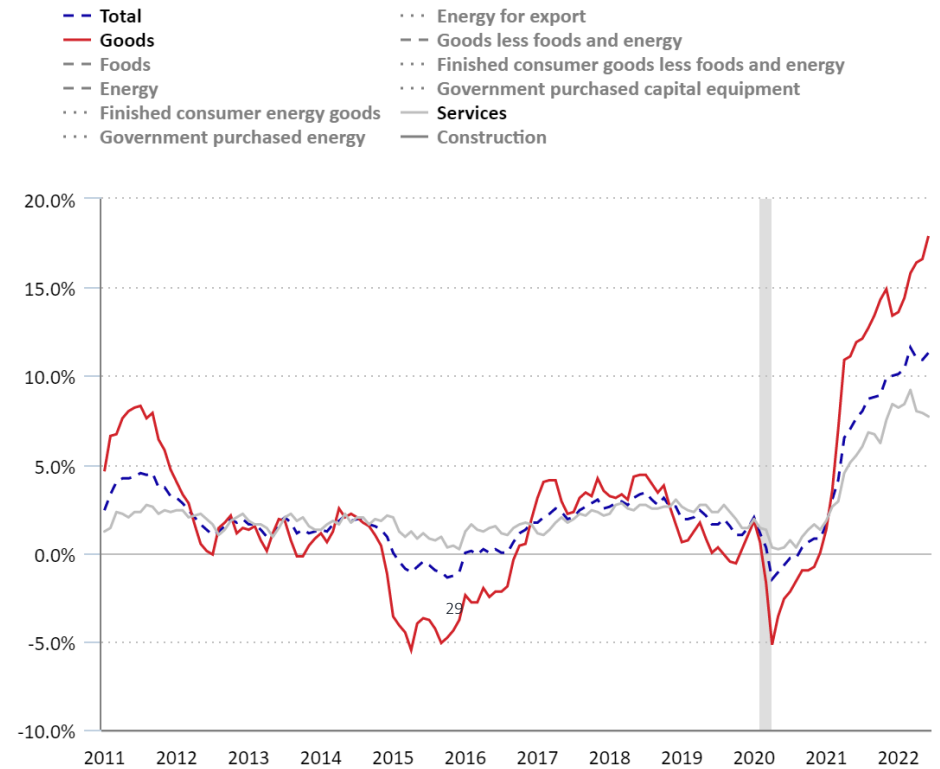
12-month percentage change, Consumer Price Index, selected categories, not seasonally adjusted



Hover over chart to view data.
Note: Shaded area represents recession, as determined by the National Bureau of Economic Research.
Source: U.S. Bureau of Labor Statistics.



12-month percent change in final demand Producer Price Indexes, January 2011–June 2022



Click legend items to change data display. Hover over chart to view data.
Shaded area represents a recession as determined by the National Bureau of Economic Research.
Source: U.S. Bureau of Labor Statistics.



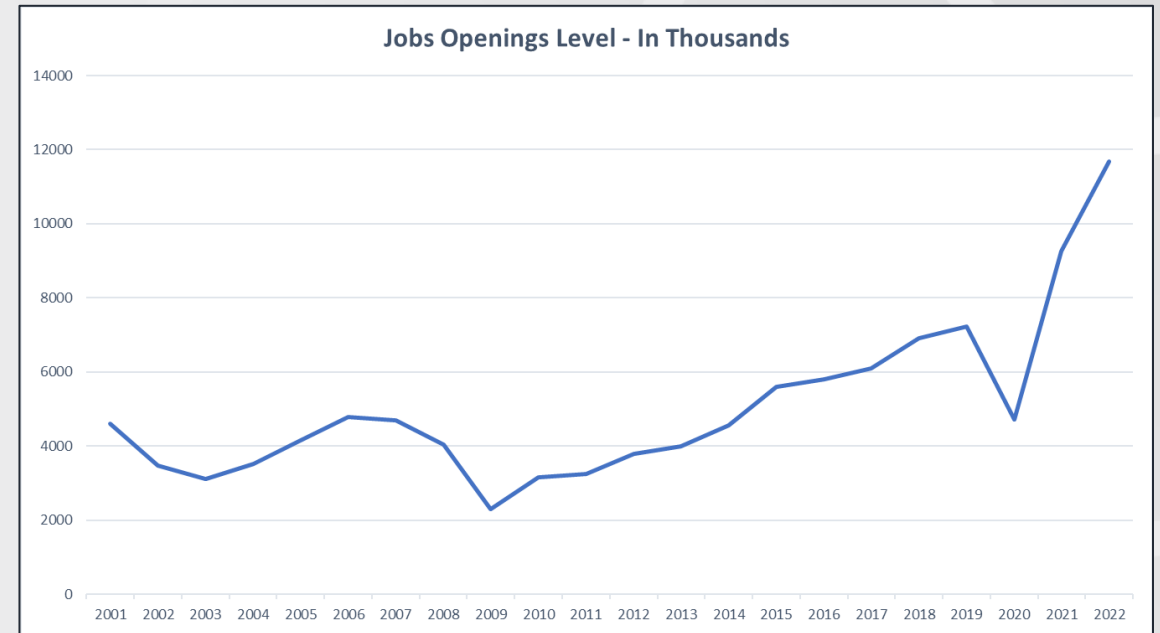


Lack of Workforce Contributes to Supply Chain Disruptions

Colorado



United States





Reliance On Foreign Sources Added to Disruptions

Our Reliance on Foreign Sources

U.S. Department of Health and Human Services figures show that **95% of surgical masks and 70% of tighter-fitting respirators, such as N95 masks, are made overseas.**³



According to the Federal Drug Administration (FDA), **nearly ¾ of active ingredient manufacturing facilities for medicines sold in the U.S. are located in other countries.**⁴



The pandemic affected 98% of global supply chains, according to an Everstream survey of supply chain professionals.⁵



Manufacturers understand the need to “reshore”

Rethinking Supply Chains

70%
of firms surveyed said they were likely to reshore in the coming years.



Thomas Industrial Survey March 2020⁶

62%
expect less focus on Just-In-Time manufacturing models.

Foley and Lardner LLP survey¹

41%
of companies have reshored at least a portion of manufacturing operations back to the U.S. within the past 3 years.

Kearney survey, March 2021, 120 U.S. manufacturing executives⁸

49%
agreed that benefits of onshore production outweigh higher labor costs.



Reshoring: Companies Are Following Through

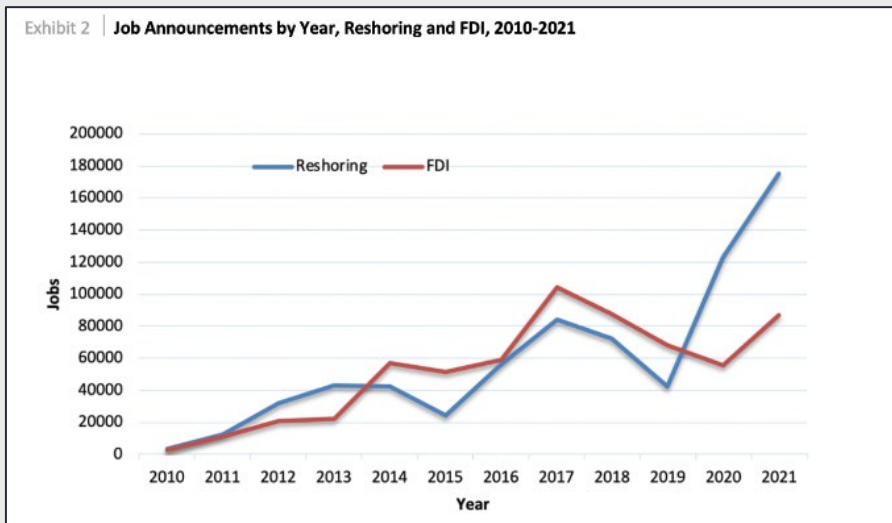
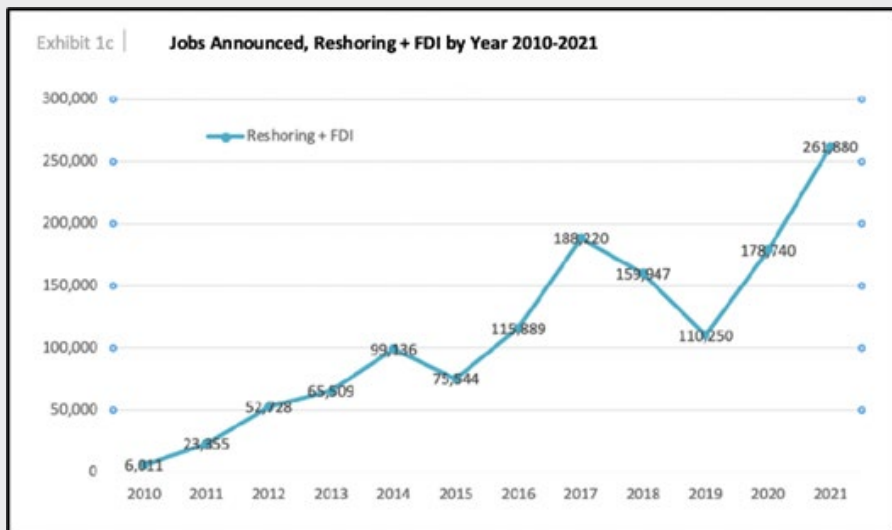
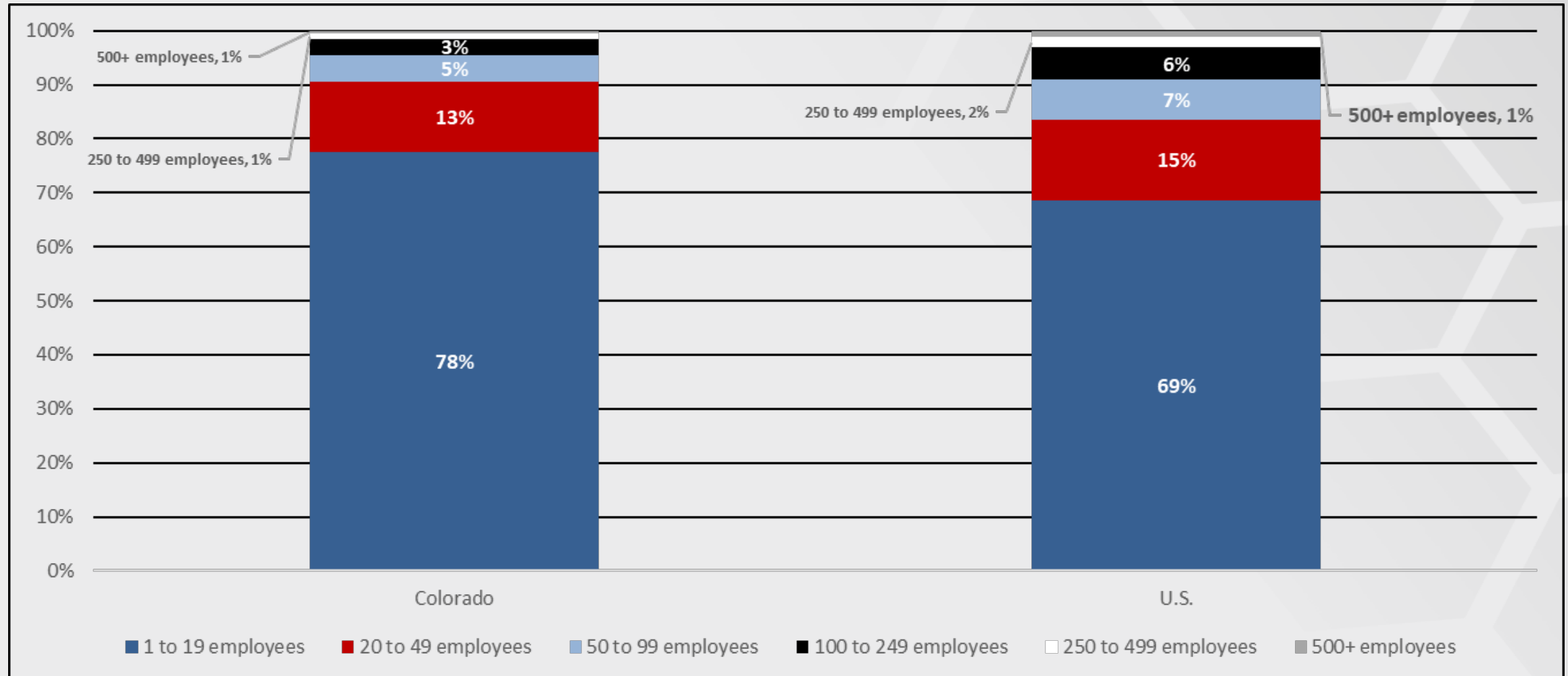


Exhibit 8b | Reshoring + FDI by State, 2010 - 2021

Rank	State	Jobs	Compa-nies	Average Jobs/ Company	% of Jobs
20	MS	25,318	131	193	2%
21	FL	23,195	200	116	2%
22	PA	20,103	345	58	2%
23	MO	16,061	141	114	1%
24	NJ	13,103	142	92	1%
25	AR	12,384	111	112	1%
26	WV	10,692	51	210	1%
27	OR	9,799	98	100	1%
28	CO	9,590	173	55	1%
29	MD	9,567	115	83	1%
30	KS	9,186	48	193	1%

Cannot Forget SMMs: Small and Medium-Sized Manufacturers are Critical to Our Economy, At Both National and State Levels

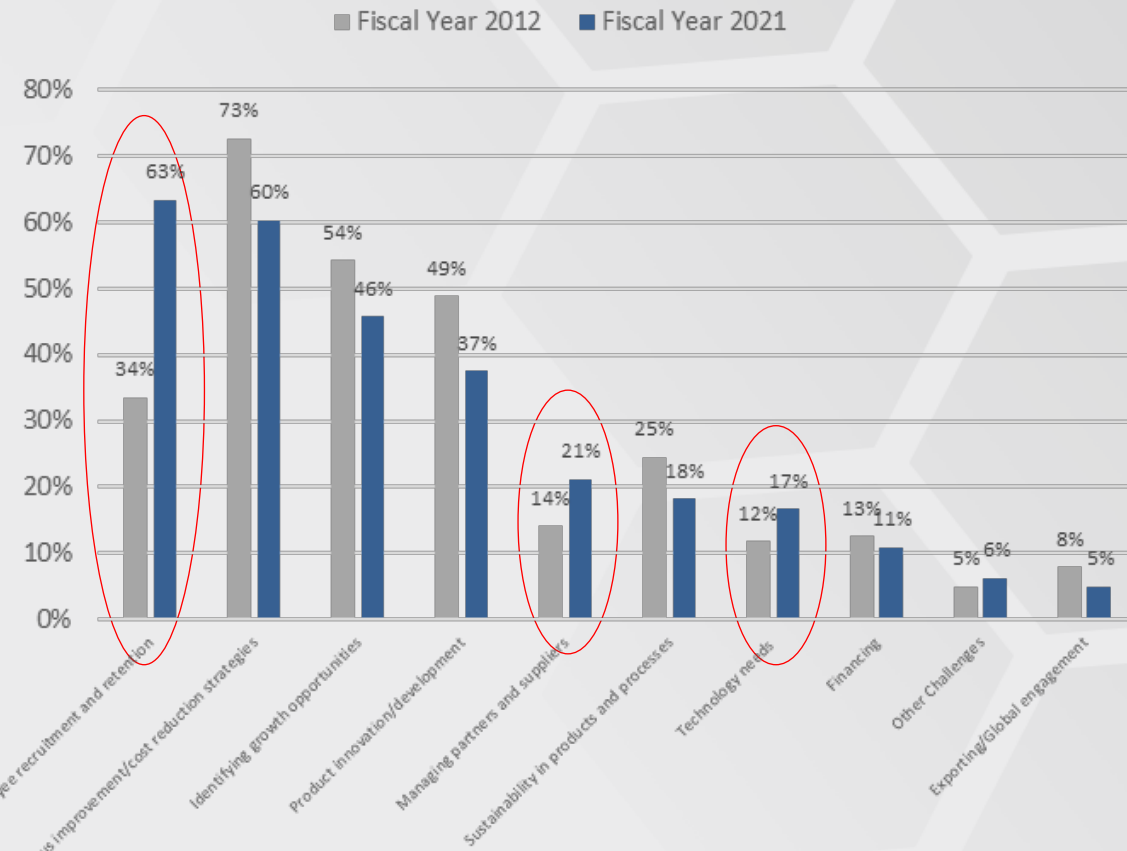
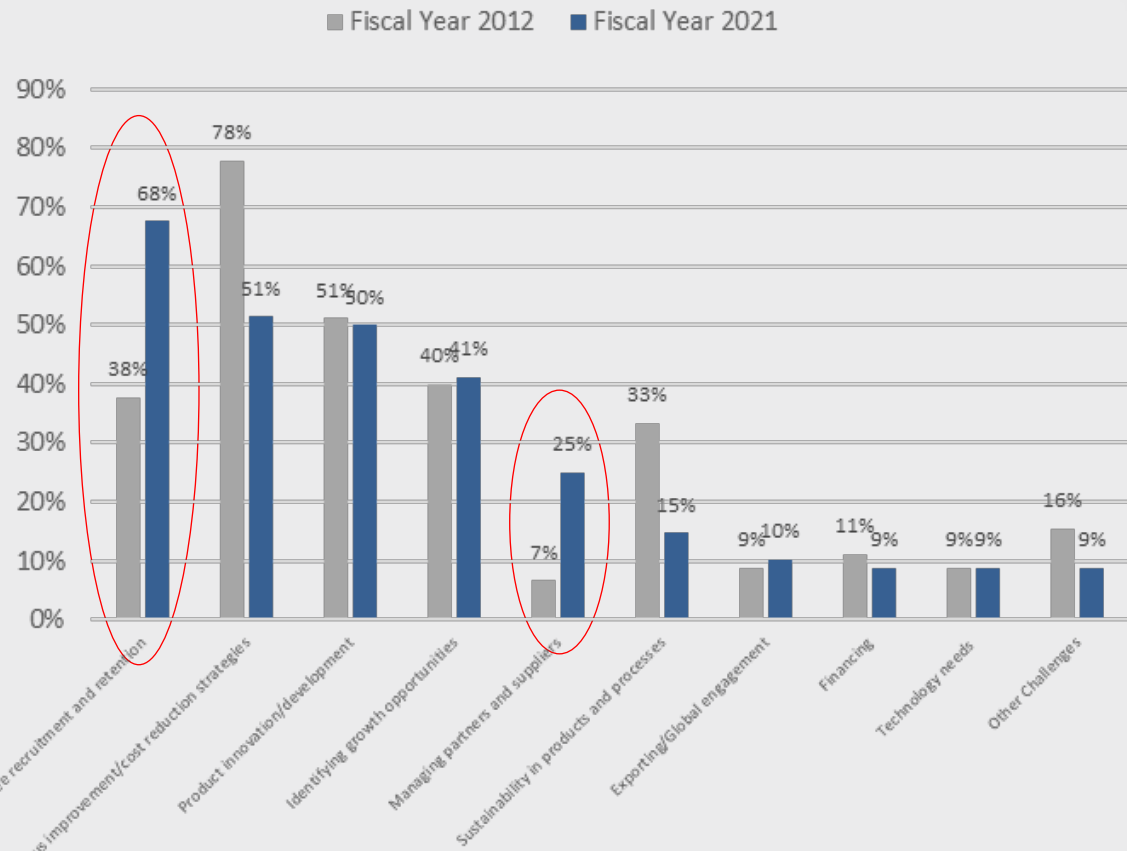




MEP Client Challenges

Manufacturer's Edge (Colorado)

MEP National Network



Mark Schmit

Manager of National Accounts,
Manufacturing Extension
Partnership





With Challenges Come Opportunities

- Several key drivers provide a unique opportunity for coordination between Federal governments, State governments, and economic developers to improve U.S. manufacturing supply chains
 - Global pandemic: sharp focus on U.S. dependence on global supply chains
 - National priorities identified by Administration: EOs, NDAA, Made in America Proclamation
 - Plethora of related bills introduced in Congress in 2021 (not yet signed into law)
- Significant U.S. domestic manufacturing base gaps exist, highlighting lack of resilience in manufacturing supply chains and undermining U.S. economic and national security and public health



What About Colorado?

- Are you following?
 - Global changes and national interests – Space Exploration, National Defense, Pharma, EVs
 - Policy
 - Congressional actions – Where is money being appropriated? - Infrastructure, Clean Energy and Semiconductors
 - White House actions – Buy American
 - State, Local and Town Actions – Who is buying what?



It's Still About Working With Companies?

- Creating Impact and Facilitating Change
 - Talent and action bring policy to life
 - matchmaking, databases, business attraction, state incentives
 - Know who the who's are...what are you doing with them?
- Small and mid-sized manufacturers want to grow and diversify.
 - Want connections into supply chains.
- OEMs and Tier 1 & 2 want help to find suppliers, develop suppliers, help suppliers be cost competitive
- All of this means connection capabilities capacity
 - Convene and connect
 - Federal and State entities
 - Companies
 - Buy America focus



Partnerships Are Key to MEP and Overcoming Supply Chain Challenges



Economic development organizations



Federal agencies & laboratories



Industry leaders & think tanks



Manufacturing USA Institutes



State & local government



Universities, community colleges & technical schools



Trade associations & other partners



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<https://www.nist.gov/blogs/manufacturing-innovation-blog>

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www.nist.gov/mep

Contact Us:

mfg@nist.gov

301-975-5020

Bret Boyd
Cofounder & CEO,
Sustainment



Jennifer Hagan-Dier
Vice President and Chief
Operations Officer,
Manufacturer's Edge





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Q&A Session

Feel free to either submit questions in chat section or raise your hand

THANK YOU TO
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**Featured
Speakers**



**Rob
Newbold**

Director of
Client Services

Manufacturer's
Edge



**Nico
Thomas**

Performance
Analyst

National
Institute of
Standards and
Technology



**Mark
Schmit**

Manager of
National
Accounts

Manufacturing
Extension
Partnership



**Bret
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- Please help us bring great programming to you! Link to survey in chat section: <https://forms.gle/8tVWjMDuuwCjaLqw8>

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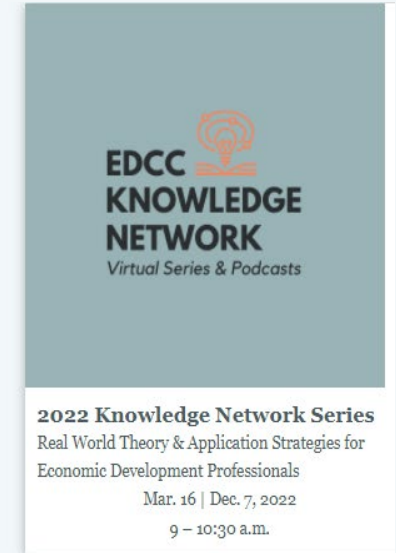
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- [EDCCOnline.org](https://www.edcconline.org)

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2020 Drive Lead Succeed Conference
EDCC hosts the annual Drive|Lead|Succeed conference in Steamboat Springs.



2020 Drive Lead Succeed Webinar Series
Our Annual Drive|Lead|Succeed Conference aims to provide the knowledge, tools, and connections...



2020 Advocacy Day at the Capitol & Legislative Luncheon
EDCC hosts an annual Advocacy Day at the Capitol along with a Legislative Luncheon to connect...



2020 Regional Economic Development Forum February
The EDCC's Regional Economic Development Forums are designed to look at our communities...

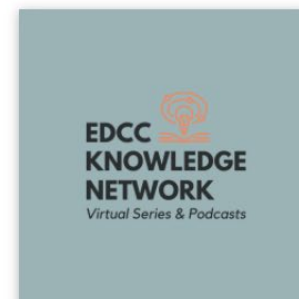


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Events & Programming

- Legislative Day and Luncheon at the Capitol (1st quarter)
- D|L|S Virtual Series | April 20 & Aug. 17 + 2 thought leadership papers
- Knowledge Network Series | March 16 & Dec. 7
- Economic Development Week | May 9-13 (3 virtual events)
- Basic Economic Development Course | June 13-17
- Drive|Lead|Succeed In-person Conference | October 19 - 21, Pueblo, CO

