

# MEP Advisory Board

Tuesday, Sept. 20, 2022  
FACA Board Meeting

This is a simplified version of the presentation for website purposes.  
A full version may be requested by emailing [Cheryl.Gendron@nist.gov](mailto:Cheryl.Gendron@nist.gov)

# FACA and the Advisory Board

- The MEP Advisory Board is authorized under Section 3003(d) of the America COMPETES Act (Pub. L. 110–69), as amended by the American Innovation and Competitiveness Act, Public Law 114–329 sec. 501 (2017), and codified at 15 U.S.C. 278k(m), in accordance with the provisions of the Federal Advisory Committee Act, as amended, 5 U.S.C., App.

# Welcome from Board Chair

- Matthew Newman
- MEP Advisory Board, Chair

# Introductions–The MEP Advisory Board

- Chair: **Matthew Newman**, New Era Advisors, Inc.
- Vice Chair: **Bernadine Hawes**, Econsult
  
- **Ray Aguerrevere**, Custom Metal Fabricators
- **Don Bockoven**, Fiber Industries LLC
- **LaDon Byars**, Colonial Diversified Polymer Products, LLC
- **Peter Connolly**, Connolly Consulting
- **Mary Isbister**, GenMet Corp.
- **Miriam Kmetzo**, Welding Technology Corp
- **Mitch Magee**, Consultant
- **Chris Mathews**, National Custom Hollow Metal Doors and Frames & Maple Leaf Awning & Canvas
- **Pat Moulton**, Vermont State Colleges Workforce Division
- **Annette Parker**, South Central College
- **George Spottswood**, Quality Filters, Inc
- **Leslie Taito**, Taco Comfort Solutions
- **Jim Wright**, Proof Research

# Welcome from the MEP Director

- **Pravina Raghavan**, MEP Director

# MAB Meeting Details

- **Tuesday, Sept 20, 2022**
- Welcome and introductions
- Board and audience introductions
- NIST Senior Leadership
- MEP Director's update
- Presentation: Current Trends in Manufacturing
- Presentation: MEP National Network™ 2023-2027 Strategic Plan

# Welcome and Introductions

- Mojdeh Bahar, NIST, Associate Director, Innovation and Industry Services

# Thank You for Hosting Us!

- **Dave Boulay**, President, Illinois Manufacturing Excellence Center, IMEC, Illinois MEP Center
- **Ashley Moy**, CEO, Cast 21, IMEC Board Member



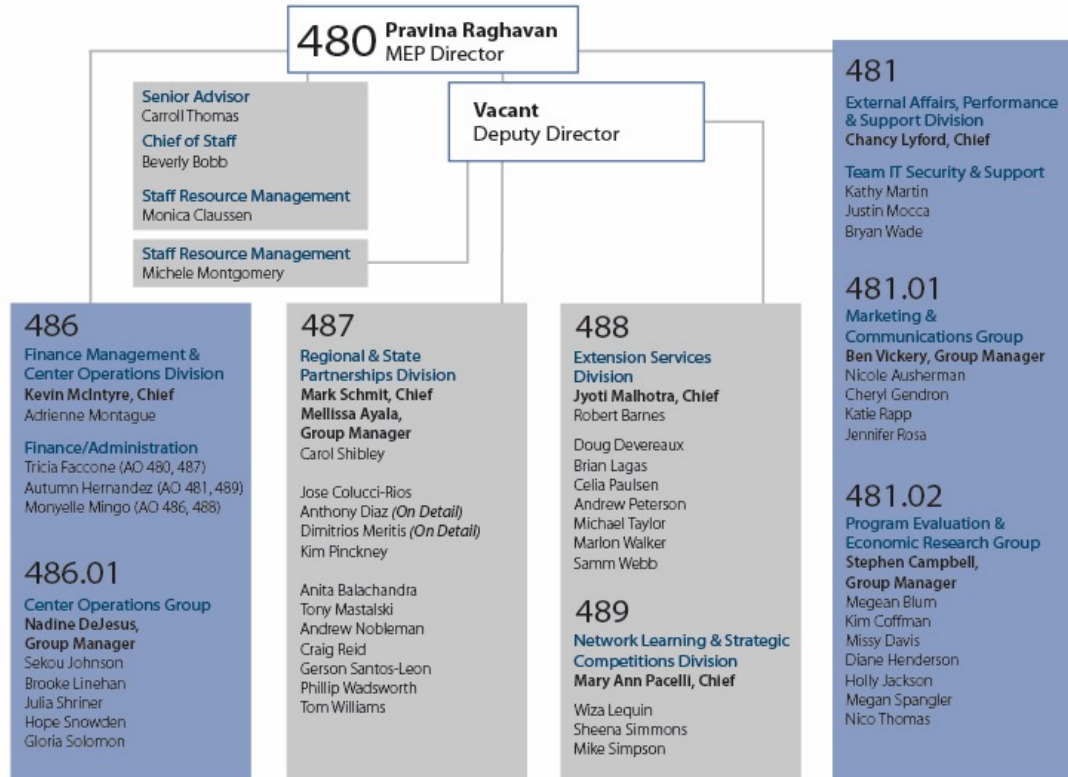
# NIST MEP Director's Update

- **New NIST MEP Team Members**
- **MEP program budget and legislative updates**
- **MEP Update**
  - Extension Services Division Impacts
  - Baldrige Job Quality Toolkit
  - State Competitions
- **MEP National Network 2017-2022 strategic plan update**

# New NIST MEP Team Members

- **Beverly Bobb**, Chief of Staff
- **Brooke Linehan**, Federal Program Officer
- **Jyoti Malhotra**, Division Chief for Extension Services
- **Craig Reid**, Resource Manager

# MEP Organization Chart



# MEP Program Budget Outlook

<b>FY 2022</b> Appropriation Status	<b>FY 2023</b> Appropriation Status Outlook
<ul style="list-style-type: none"><li>• \$158 million for MEP</li><li>• Funding not subject to cost share requirements (elective for Centers receiving state funds conditioned on federal cost share requirement)</li></ul>	<ul style="list-style-type: none"><li>• President's budget calls for \$275 million for MEP</li><li>• Congressional marks: House, \$212 million; Senate, \$200 million</li><li>• No expectation of cost share exemption</li><li>• Expecting to start FY23 under a CR</li></ul>

# NIST MEP Projected Spend Plan Through Sept. 30, 2022

<b><u>Available funding:</u></b>	<b>\$ Millions</b>
Appropriation	158.0
Carryover from FY 2021	2.0
Prior-year recoveries	3.6
Funding from other agencies*	1.6
<b>Total available funding</b>	<b>165.1</b>
<b><u>Planned expenditures:</u></b>	
Center renewals	134.1
Strategic competitions	1.2
Contracts	6.9
NIST MEP labor	10.7
<u>NIST and program overhead</u>	<u>12.2</u>
<b>Total planned expenditures</b>	<b>165.1</b>

Projected FY 2022 efficiency rate = 11.18%; actual FY 2021 efficiency rate = 11.94%.

\* Funding from DOD for contracts and project support

# Major Legislation

**The President signed into law the CHIPS and Science Act of 2022 on August 9, 2022**

Key provisions include:

- Creates an Expansion Award Pilot Program
- Establishes a voluntary National Supply Chain Database
- Language which doesn't require MEP Centers to enroll their clients in the GSA Advantage Program
- Triples MEP's Authorized Funding Levels: FY23 \$275 million, FY24 \$300 million, FY25-27 \$550 million

“[The Act will] strengthen American manufacturing, supply chains, and national security, and invest in research and development, science and technology, and the workforce of the future to keep the United States the leader in the industries of tomorrow, including nanotechnology, clean energy, quantum computing, and artificial intelligence.”—

White House Press Release 8/9/2022

## Supplier Scouting

- 25 industries
- 254 items scouted
- \$168M new business opp.

## Industry 4.0

- 2 CRADAs
- MEP's proposal to MxD

## MATTR/MATTR+

- > 500 informal requests

## Cybersecurity

- ~50% of **projects help DOD** contractors and subs
- 140% increase over 2020

## ExporTech

- \$500k-\$700k avg sales inc./retain
- \$91k avg savings
- \$600M in total program sales
- \$12k average follow-on sales
- 5 new jobs per company

## Toyota Kata

- 30 MEP Centers
- 643 projects completed
- 500 unique clients

## Food Industry Svcs

- \$55M in new/retained sales
- \$22M in new investments
- 520 new/retained jobs

## MedMMAP

- GENEDGE, FDA, CMTc, GaMEP, IMEC, MASSMEP, MMTc, NJMEP, PRIMEX

# Job Quality Toolkit

Job Quality Toolkit was developed by the NIST Baldrige office with support from DOC.

The Job Quality Toolkit, rooted in the Baldrige Excellence Framework, is tool that organizations can use to improve the quality of the jobs they offer.

## **MEP support will include:**

- NIST MEP website
- A NIST MEP Infographic for Centers to brand and post to their website
- Information webinars for Centers
- Development of an on-line self-assessment for companies that will align with the JQT



# FY 2022 Center State Competition

## Notice of Funding Opportunity One

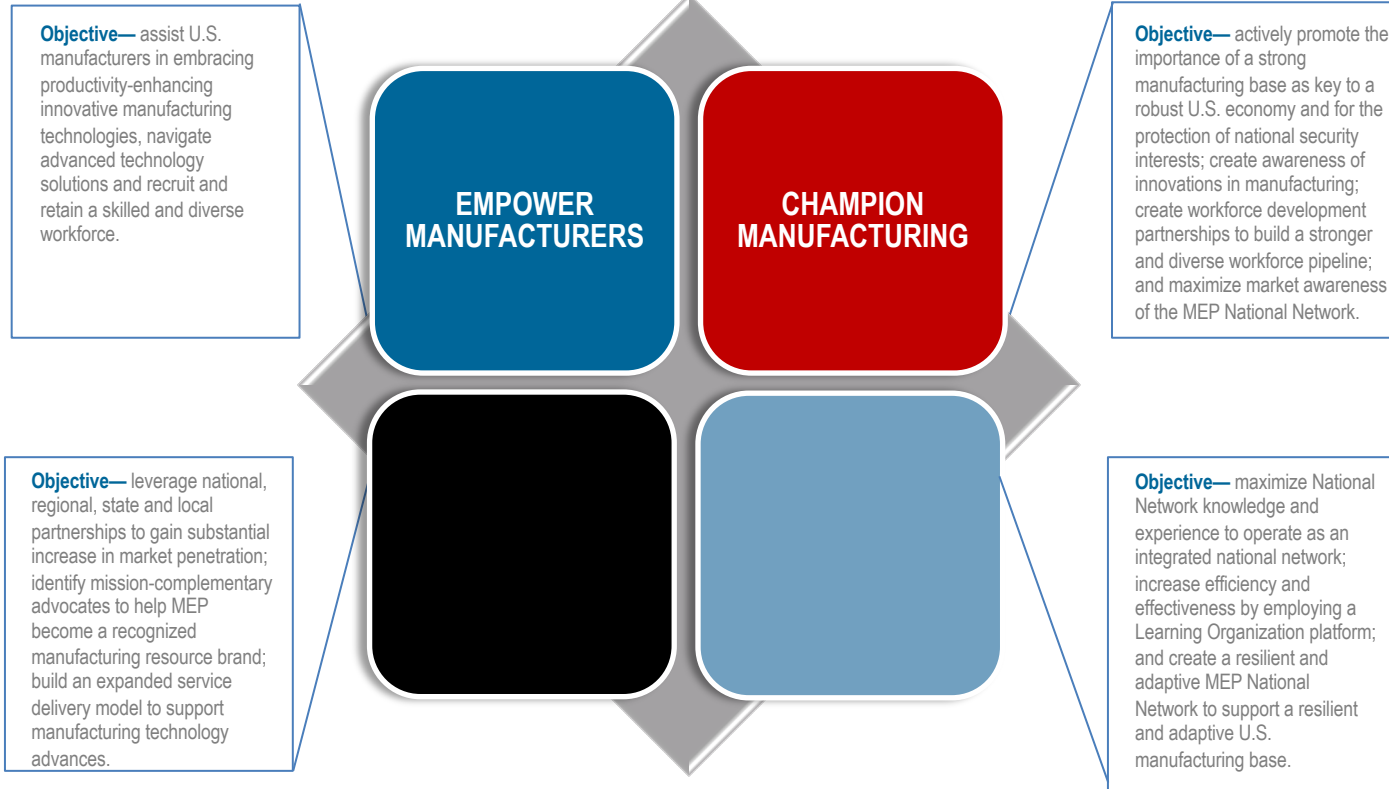
- Kentucky, Nebraska, Rhode Island and South Dakota
- Applications received April 26
- Award recommendations sent to NIST Grants Management Division
- Awards announced Oct. 1 for Jan. 1, 2023 start

## Notice of Funding Opportunity Two

- Arizona and Maryland
- NOFO posted Aug. 1, 2022
- Applications will be due Oct. 30, 2022
- Awards announced April 2023 for July 1, 2023 start

MEP National Network  
2017-2022 Strategic Plan Update

# MEP National Network™ 2017-2022 Strategic Goals



# 18 Month Measures of Success

## **1. Strengthening the National Supply Chain**

Increase supplier matches and clients served in critical areas

## **2. Serving the Manufacturing Workforce**

Increase client engagement in workforce services

## **3. Increasing Awareness**

Amplify and measure Network brand awareness

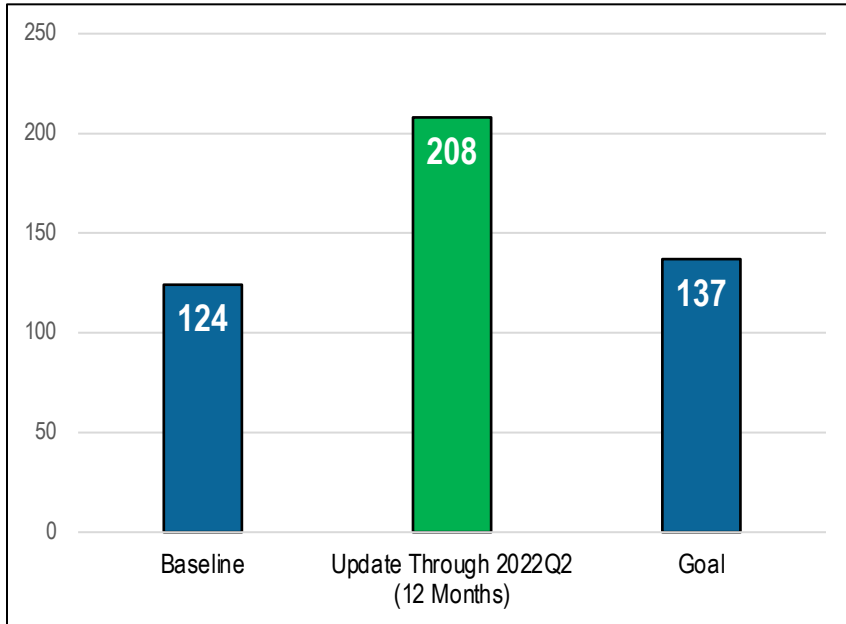
## **4. Leading in Technology Deployment**

Increase client engagement in technology services and implementation

# Measure One – Strengthening the Supply Chain

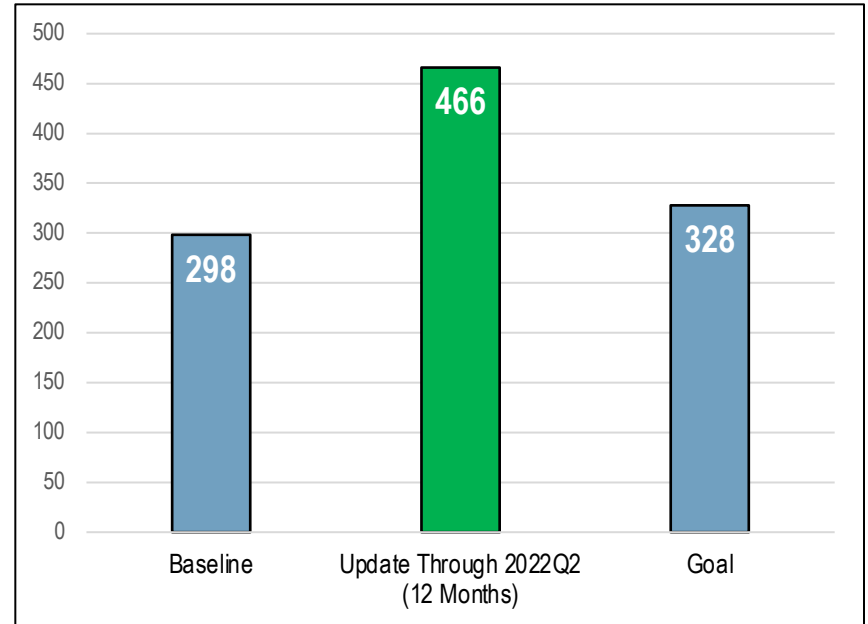
Goal: Increase supplier scouting requests by 10%

**SUCCESS**



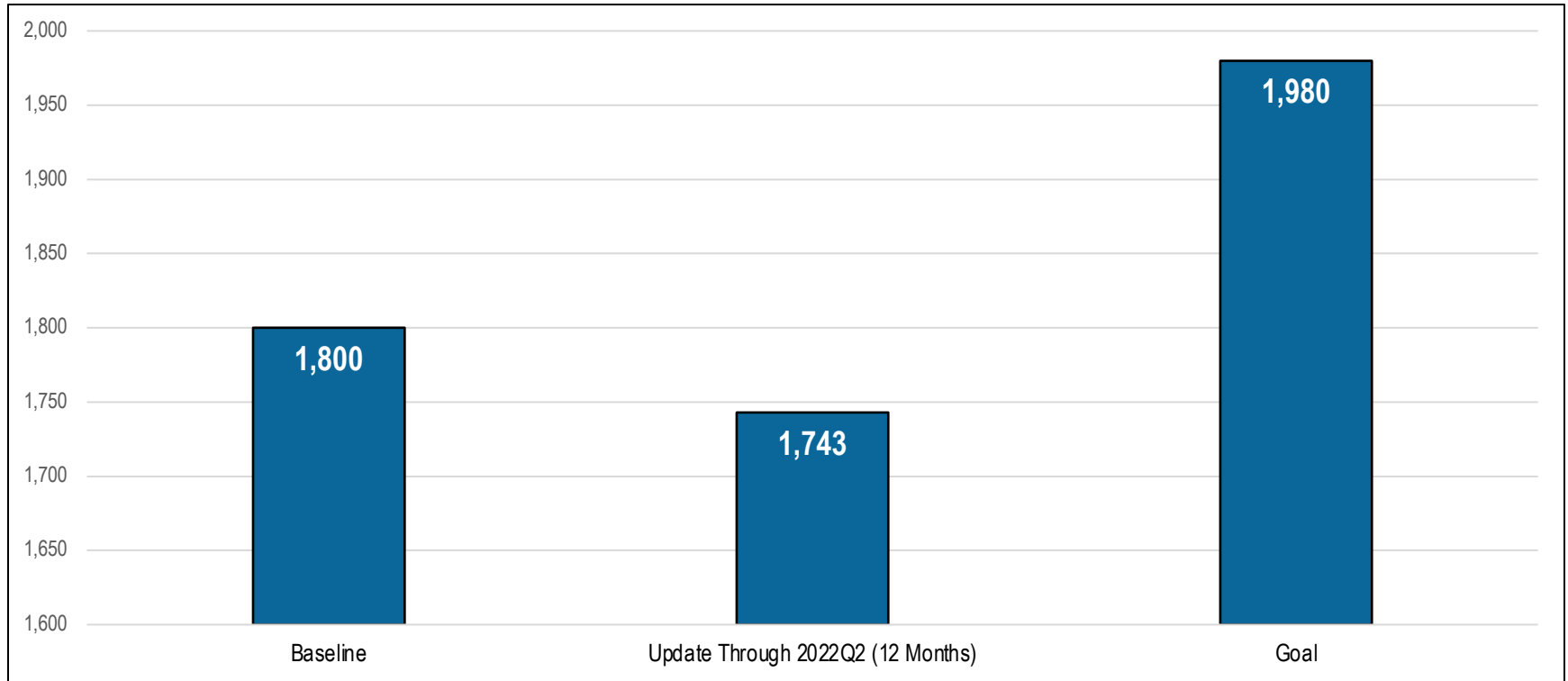
Goal: Increase successful supplier scouting matches by 10%

**SUCCESS**



# Measure Two – Serving the Manufacturing Workforce

Goal: Increase clients engaged with workforce projects by 10%



# Measure Three – Increased Awareness

Goal: Amplifying Network brand awareness by at least 10%

Brand Measure	Baseline for Current 18 Months*	Progress To Date	New Goal for Current 18 Months	Change
#MEPNationalNetwork hashtag occurrences	567	538	624	-5%
Brand Mentions	194	195	213	+5%
Manufacturing Innovation blog subscribers	40,130	49,165	44,143	+23%
Backlinks	186	258	205	+39%
Social media followers	18,419	19,285	20,261	+5%

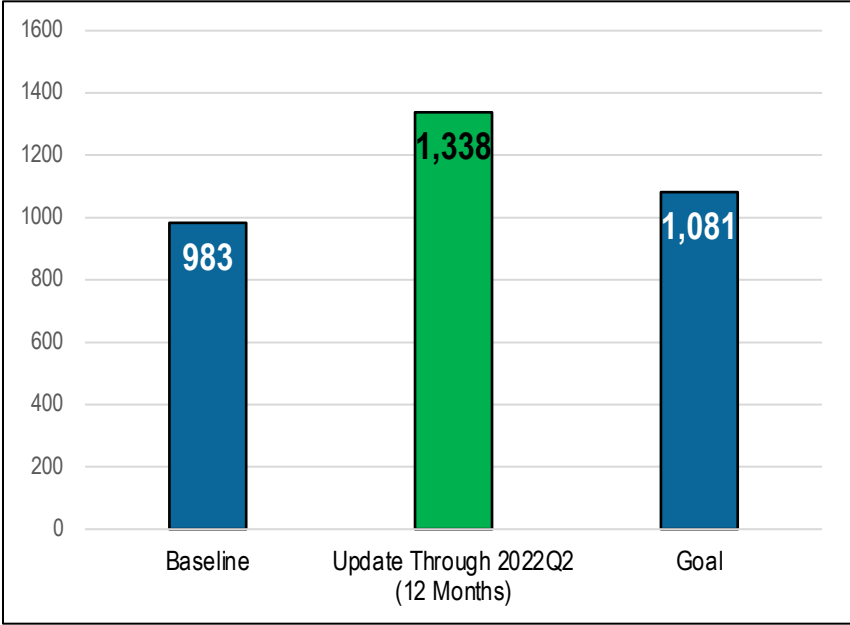


\*Progress to date based on data from April 1 - June 30, 2022

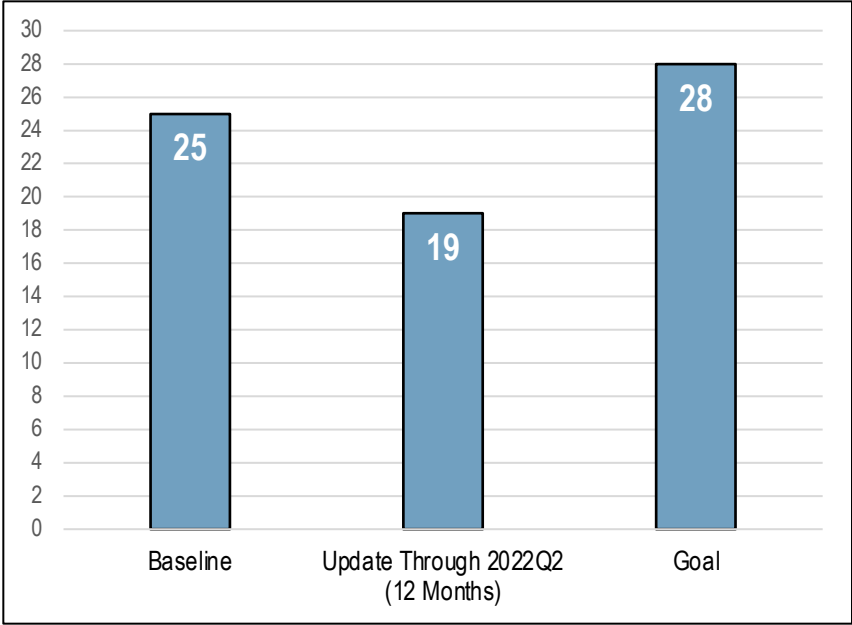
# Measure Four – Leading in Technology Deployment

Goal: Increase clients engaged with technology services projects by 10%

**SUCCESS**



Goal: Increase MATTR requests/inquiries by 10%





# Four(ish) Trends Impacting MEP Stakeholders

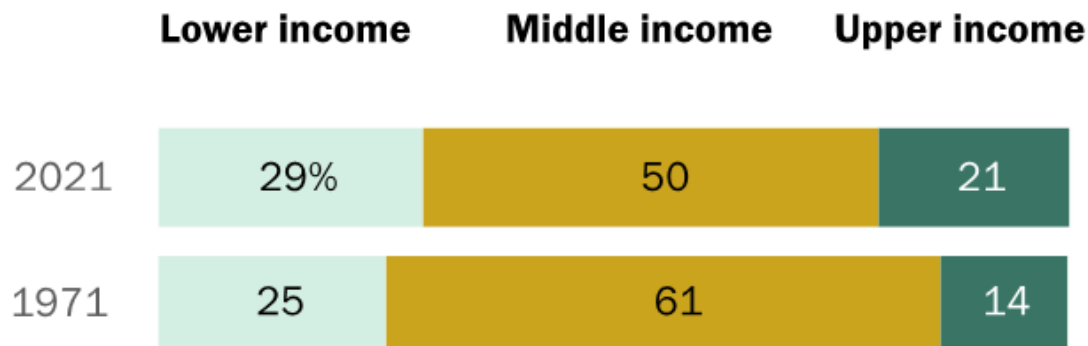
- **Dan Berglund**, President and CEO, SSTI

# Biggest challenges identified

- Income inequality, geographic/racial disparities
- Workforce
- Capital
- Collaboration/lack of leadership and vision
- Misc
- Housing cost
- Research or commercialization capacity
- Climate

# Share of adults in U.S. middle class has decreased considerably since 1971

*% of adults in each income tier*



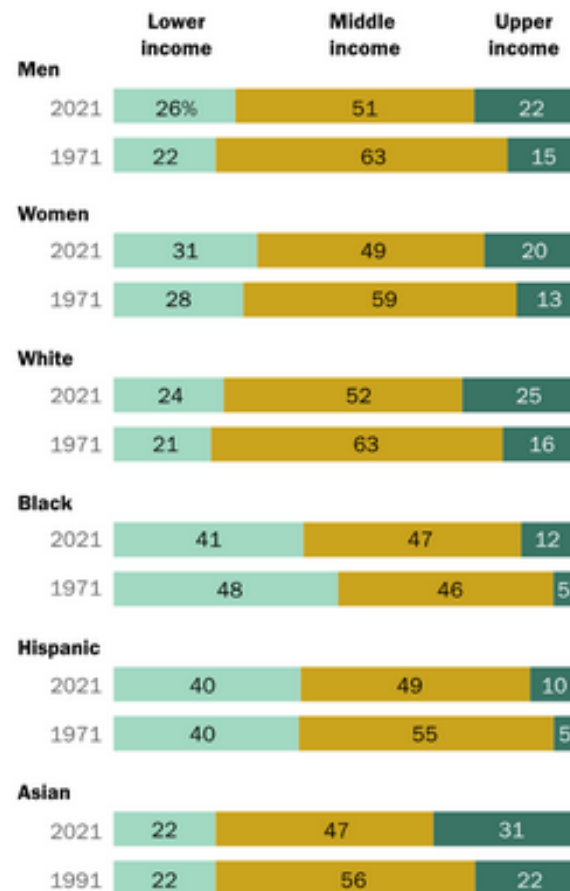
Note: Adults are assigned to income tiers based on their size-adjusted household incomes in the calendar year prior to the survey year. Shares may not add to 100% due to rounding.

Source: Pew Research Center analysis of the Current Population Survey, Annual Social and Economic Supplement (IPUMS).

**PEW RESEARCH CENTER**

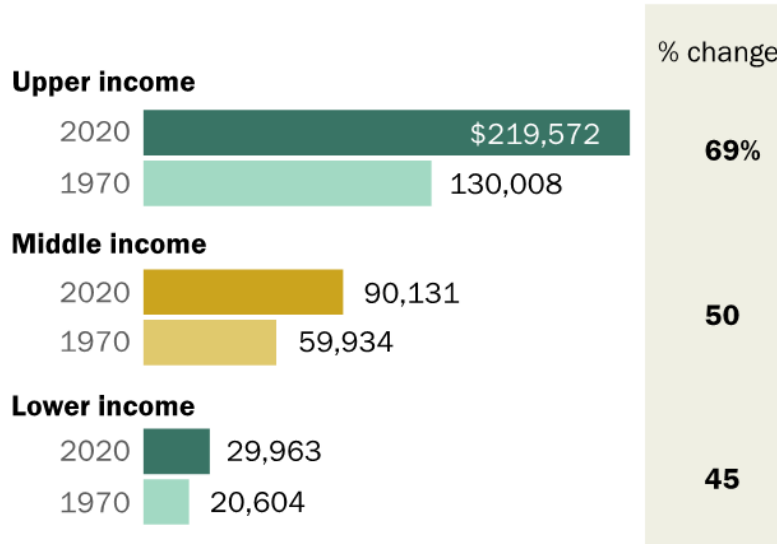
## Black and Hispanic adults, women are more likely to be lower income

*% of adults in each income tier*



# Incomes rose the most for upper-income households in U.S. from 1970 to 2020

*Median income, in 2020 dollars and scaled to reflect a three-person household*



Note: Households are assigned to income tiers based on their size-adjusted incomes in the calendar year prior to the survey year.

Source: Pew Research Center analysis of the Current Population Survey, Annual Social and Economic Supplement (IPUMS).

# Four trends impacting MEP stakeholders

- Responding to the reshaping of manufacturing
  - Supply chain disruption from China trade dispute and pandemic
  - Public interest in electric vehicles
  - Federal action in semiconductors, electric vehicles, batteries, hydron and energy efficiency
- Workforce shortage and composition
- Higher education facing continuing challenges
- State budgets fine– for now

# Trying to be home of new manufacturing

- Semiconductors
  - OH-- ~\$2B for construction of two Intel semiconductor factories estimated at \$20B
- Batteries
  - IN-- At least \$186.5M for \$2.5B Stellantis and Samsung battery plant
  - KS-- \$892M for \$4B Panasonic battery plant
- Electric vehicles
  - GA-- \$1.5B for Rivian's \$5B plant
  - OK-- \$300M for Canoo, start-up electric vehicle manufacturer
  - TN-- ~\$500M for Ford F-series electric trucks \$5.6B development; also state pledges a new campus for the Tennessee College of Applied Technology (TCAT) for training

# Mfg not alone in workforce challenges

- Kenan Institute: 11.3M job openings, 7% of total workforce  
“Each vacancy suggests that a firm is getting by with fewer workers than it wants, with existing workers being stretched to fill as much of this need as possible.”
- Quit rates July 2022 vs. Feb 2020
  - Private industry– 3.1%/2.5%
  - Durable goods manufacturing– 2.0%/1.4%
  - Non-durable goods manufacturing– 3.1%/1.6%
  - Retail– 3.7%/3.5%
  - Transportation, warehousing and utilities– 3.5%/2.5%
  - Arts, entertainment and recreation– 3.4%/3.4%
  - Accommodation and food services– 5.6%/4.4%



# Job openings July 2022 vs Feb 2020

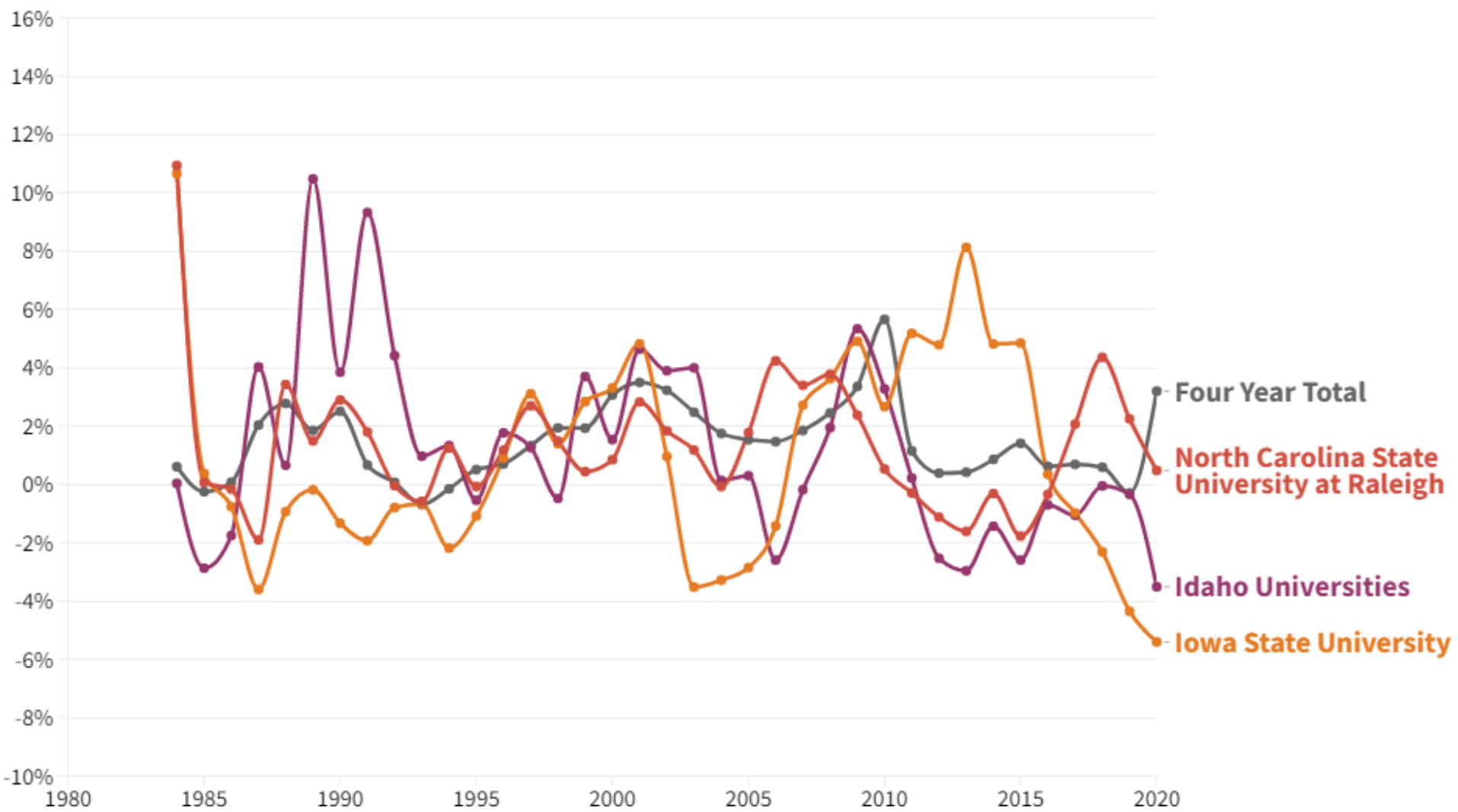
- Job opening rates by industry
  - Total private— 7.2%/4.5%
  - Durable goods manufacturing— 6.0%/3.3%
  - Nondurable goods manufacturing— 6.2%/2.9%
  - Transportation, warehousing and utilities— 7.5%/4.5%
  - Health care and social assistance— 8.8%/5.2%
  - Arts, entertainment and recreation— 8.1%/5.4%
  - Accommodation and food services— 8.9%/5.2%

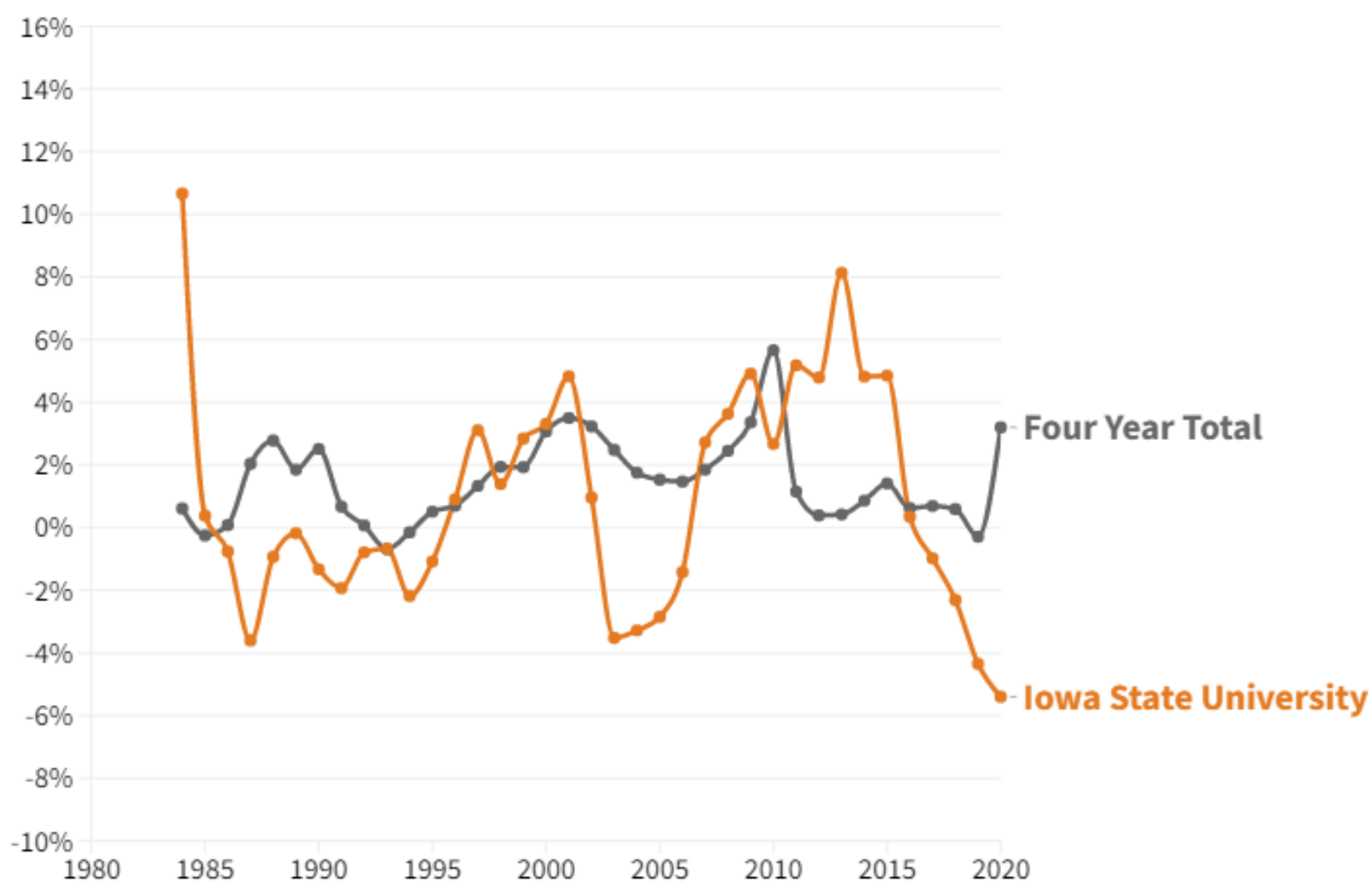
# Higher education continuing challenges

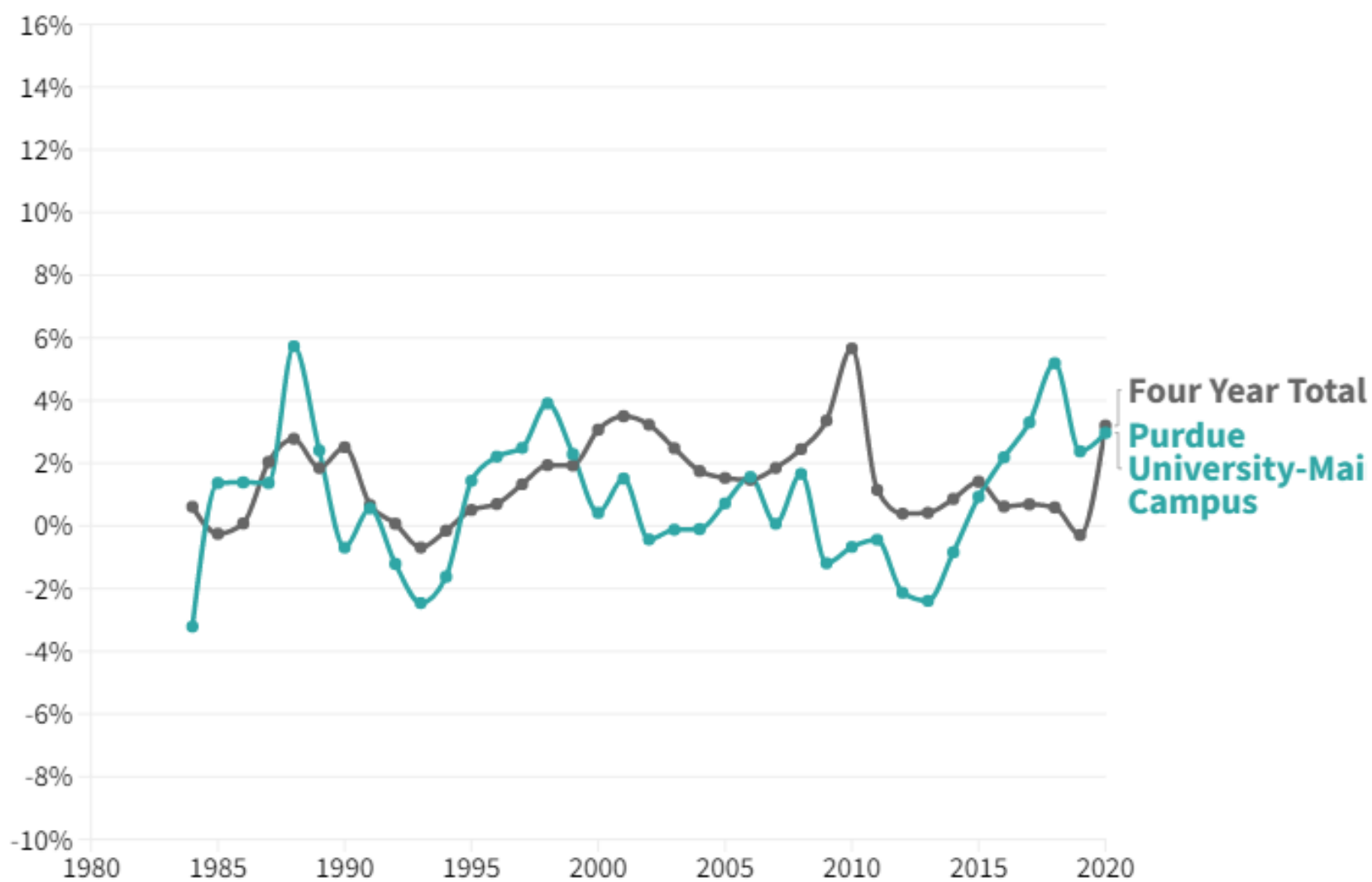
- Projected drop-off in enrollment
- Decreased public support for higher education
- Questioning the value of a four year degree

# Immediate higher ed enrollment issues, NSRC data

- Higher education enrollment fell a further 2.7 percent in the fall of 2021 following a 2.5 percent drop in the preceding fall
- Continued enrollment losses in the pandemic represent a total two-year decline of 5.1 percent or 938,000 students since fall 2019
- Women making up 59.5 percent of the college students (men 40.5 percent) at the end of the 2020-21 academic year







# State budgets

Route Fifty headline: “Are States in Good Shape to Handle a Recession?”

“The economy could be in for a bumpy period but states and municipalities are well-equipped to weather the turbulence.”

“State and local governments are in good shape to navigate whatever ... path we go down,” said Mark Zandi, chief economist at Moody’s Analytics.

# An opposing viewpoint

- “I see this as a temporary increase in revenues that we’re likely going to see dry up in the next year or two,” says Kim Rueben, director of the State and Local Finance Initiative at the Urban-Brookings Tax Policy Center. “If they end up passing permanent income tax rate cuts, they’re digging themselves a pretty serious hole.”



# Contact Information

**For more information, contact:**

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**To sign up for *SSTI Weekly Digest* go to:**

<https://ssti.org>

Presentation: MEP National Network  
Strategic Plan 2023 – 2027  
Overview of Completed Draft

# Overview Summary and Context

## **November 2021**

- Started developing 2022-2027 National Network strategic plan

## **The purpose**

- To create a unified network that is empowered and able to execute strategic priorities

## **The plan**

- Accessible and easily communicated so stakeholders can engage with it, be held accountable for it and adapt it in real time to emerging trends, shifting environments, and network needs.

# The Distinctives of Creating a Network Strategic Plan

A network strategic plan requires:

**Distributed  
power and  
consensus**

**Voluntary  
relationships**

**Focusing on  
common  
interests**

**Influence,  
persuasion  
and good will**

# The Network Strategic Planning Process

Create subcommittees of content experts from across the network to scope the work and make recommendations to the SPC

Facilitate buy-in meeting with critical stakeholders from the across the network

Create Strategic Planning Committee (SPC) as a governing body

American Manufacturing Ecosystem Subcommittee

Recommendations

National Network & Its Stakeholders Subcommittee

Recommendations

State and Legislative Environments Subcommittee

Recommendations

SPC Establishes priorities based on subcommittee recommendations

Director of Organization Approves Plan

Preparation

Situational Analysis Research

Formulation and Dissemination

# Strategic Plan Structure

- Introduction by the Director
- National Network enduring values
- Critical challenges facing American manufacturing
- Framing the destination
- Strategies for the three primary goals
- Strategies for Network partners

# Defining the Destination

To build out its Strategic Plan, the MEPNN crafted a description of where it wanted to be in five years. It identified what must be true of the National Network for it to make the impacts it desires. Below is a description of where the MEPNN aspires to be by 2027.

- The MEPNN has the dual capacity to excel at serving SMMs in individual states and to function as a powerful cohesive, collaborative network capable of impacting complex regional and national issues.
- The MEPNN is established as a recognized national resource and expert authority in American manufacturing. (It has a story and is telling it well.)
- The MEPNN is a valued partner with other federal agencies, state authorities, associations, and other groups working in manufacturing.
- The MEPNN has the knowledge and capacity to support SMMs and manufacturing in anticipating and being prepared for future trends.
- The MEPNN enables consistent and cost-effective technology adoption.
- The MEPNN annually increases its market penetration.
- The MEPNN annually increases the economic impacts it creates for U.S. manufacturers.
- The MEPNN enables SMMs access to a skilled workforce.
- The MEPNN helps SMMs become nimbler in pivoting into new markets.
- The MEPNN is engaged in the relevant new directions that the country is going in relation to manufacturing. (Helping the MEP program remain relevant in a swiftly changing industry)

# National Network Primary Strategies

**The MEP National Network Strategic Plan has three primary goals:**

- Narrow the Workforce Gap
- Mitigate Supply Chain Vulnerabilities
- Leverage Technology



# Goal 1: Narrow the Workforce Gap

- **Enable SMMs to navigate the current workforce shortage while improving productivity and profitability through:**
  - Upskilling
  - Use of technology and productivity enhancements
  - Partnerships (e.g., connect educational entities to manufacturing needs and jobs/careers)
  - Improving work conditions, job quality, career paths, etc.
  - Assessing underserved populations and integrating them into the manufacturing industry
  - Making the case for integration of underserved populations with SMMs
- **Build a pipeline of future employees for the manufacturing sector through:**
  - Rebranding and marketing the public image of manufacturing nationally and in the states
  - Broadening partnerships and connections with educational and other entities working in this space

# Goal 2: Mitigate Supply Chain Vulnerabilities

- **Increase supply chain visibility**
  - End-to-end awareness (supplier's supplier and customer's customer)
  - Mapping Supply Chains (key industries; in individual states)
  - Working with OEMs to map out how SMMs fit into their supply chains
- **Assess supply chain risk**
  - Able to identify vulnerabilities
  - Able to rapidly detect risk as they emerge
  - Strengthen supplier development
  - Increase supplier scouting capacity

# Goal 3: Leverage Technology

- **Increasing tech adoption**
  - ID early adopters and leverage them to move the early majority
  - Defining tech capabilities and business cases for adoption for customers to increase impact (IT and OT)
  - Educating Center staff on the different kinds of technology to increase impact with customers
- **Ensuring wholistic, comprehensive application and use of technology (not just in production but in business operations, etc.)**
  - Creation of roadmaps for customers and aligning them to customer's strategic goals
- **Strengthening cybersecurity capabilities**
  - Communicating the importance of mitigating cybersecurity risks
- **Partner with federal labs to accelerate the use of new technologies**
  - Codevelop tech capabilities and business cases for adoption to bring new insights to industry

# Intersections Across Network Strategic Goals

**The strategic goals do not exist in silos.  
They intersect with each other.**

**Increasing technology adoption across served customers**

**Narrowing the workforce gap through engagement future technologies**

**Increasing technology adoption across served customers**

**Strengthen workforce knowledge of supply chain dependencies to help predict supply chain risks**

# Strategies for NIST MEP

To execute and continue to build on the four pillars, the NIST MEP will:

- Recast and adapt its operations, policies, processes, practices, and structures
- Expand partnerships and strategic
- Develop its knowledge and learning capabilities and leverage its convening
- Build the MEP brand, messaging, and marketing reach

# Presentation and Discussion: MEP Expansion Awards

# CHIPS and Science Act of 2022 and the MEP Advisory Board: Sec. 10251, Sec. 25B.

Applications for awards under this section shall be submitted in such manner, at such time, and containing such information as the Director shall require in consultation with the Manufacturing Extension Partnership Advisory Board.”

“GLOBAL MARKETPLACE PROJECTS.—In making an award under this section, the Director, in consultation with the Manufacturing Extension Partnership Advisory Board and the Secretary, may take into consideration whether an application has significant potential for enhancing the competitiveness of small and medium-sized United States manufacturers in the global marketplace.”

# CHIPS Act of 2022

**Establishes a pilot program of expansion awards to provide services for:**

- **Workforce development** (which may include training advanced manufacturing personnel),
- Resiliency of **domestic supply chains**, and
- Expanded support for **adopting advanced technology** upgrades at small and medium manufacturers.
- **Global marketplace projects** – projects that have potential for enhancing the competitiveness of U.S. SMMs in the global marketplace.
- Allow NIST to **accept funding from other Federal departments** and agencies for competitive MEP grants
- Require MEP to increase outreach to underserved communities
- Ensure the MEP Centers are specifically focused on supporting American manufacturing

**Award amounts at the discretion of the Director**



# Reporting

## **By Oct. 1, 2025, the Director will submit to Congress a report:**

- Summary description of what activities were funded and the measurable outcomes
- A description of which types of activities could remain as part of a permanent expansion awards program
- A description of which types of activities could be integrated into, and supported under the program base award
- A description of which types of activities could be integrated into and supported under the Competitive Awards Program
- A recommendation, supported by a clear explanation as to whether the pilot program should be continued.

Presentation and Discussion:  
Large OEM Partnerships

# Question to the Board

- How can MEP National Network partner with large OEM to develop future supply chains?
- How do we tell the MEP story to create new partnerships with OEMs and highlight our value?

# Discussion: MEP Advisory Board Working Groups

# Question to the Board

- What working groups do we need to support the new strategic plan?
- Which one do you want to serve on?

# Current Advisory Board Working Groups

<b>Working Group</b>	<b>Board Leadership</b>	<b>Focus</b>
<b>Supply Chain Development</b>	Don Bockoven, Lead LaDon Byars, Co-Lead	MEP National Network program support and development of manufacturing supply chains
<b>Executive Committee</b>	Mary Isbister, Lead George Spottswood, Co-Lead	Support Board governance and connection with local Center boards
<b>Strategic Plan, 2023-2027</b>	Bernadine Hawes, Co-Lead Jim Wright, Co-Lead	Support development of the MEP National Network 2023-2027 Strategic Plan

# Next MEP Advisory Board Meeting

Planning continues – details coming soon

## **MEP Advisory Board**

- Wednesday, March 8, 2023

Proposed to be held prior to Hill Day in Gaithersburg, Maryland on or close to the NIST Campus.

# Thank You

For the Full Presentation, Please contact Cheryl Gendron at

[Cheryl.Gendron@nist.gov](mailto:Cheryl.Gendron@nist.gov)

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