



# MFG<sup>x</sup> SUMMIT

---

16 May 2025

# Agenda



- 9:00-9:15: Opening Remarks
- 9:30-10:30: **Advocacy – Lobbying for a brighter future**  
Joe Edwards – Maine Jobs Council  
Mike Saxl – Maine Street Solutions
- 10:30-11:00: Break and Networking
- 11:00-12:15: **Our Manufacturing Future – Workforce & Industry 4.0** (DECD Commissioner Michael Duguay)  
Jim Damicis & Angela Hallowell (Camoin)  
John Belding (UMS)/Jack Lesko (Roux Institute)
- 12:15-12:30: **Awards and Closing Remarks**  
MFPA – Pine Tree Award  
Manufacturer of the Year
- 12:30-1:30: Lunch and Networking

# WELCOME

Mike Roughton – Executive Director



## Performance metrics:

|                            |         |
|----------------------------|---------|
| Membership growth          | +12%    |
| Industry/Affiliate Mix     | 77%/23% |
| ME county penetration      | 96%     |
| Scholarship award increase | +106%   |
| Advocacy effectiveness     | +29%    |

# MAME Community

[www.mainemfg.org](http://www.mainemfg.org)



A screenshot of the MAME Community website. The browser address bar shows 'https://mainemfg.tradedw.com/community'. The page has a navigation bar with 'MAME' logo, 'Community', 'Sponsors', 'Members', and 'Events'. On the left is a sidebar with 'Feed', 'Tags', 'Groups', and a list of categories like 'All Members', 'Board of Directors', etc. The main content area shows a post by Mike Roughton, Executive Director, about 'Youth Apprenticeship Week - May 6-10'. The post text states: 'Maine aims to add 75,000 people to its workforce by 2029, in part through expanding career training pipelines such as pre-apprenticeship and registered apprenticeship. The Maine Department of Labor (MDOL) is spotlighting the Maine Apprenticeship Program (MAP) all week long and will host events to educate young Mainers, educators, and parents about pre-apprenticeship and registered apprenticeship programs that give young adults the opportunity to explore career opportunities in manufacturing and...'. Below the text is a photo of two men in a workshop. To the right is an 'UPCOMING EVENTS' section for 'MAME's 2024 Summit' on May 24, 7:30 AM - 1:30 PM. At the bottom right is a help icon.

# One more commercial. . .



## “Opportunities for Industrial Materials Exchange in Maine”

### 1. Workshops

Engage stakeholders to understand opportunities and barriers, as well as to build networks

### 2. Surveys

Survey partners about high volume wastes, inputs, opinions

### 3. Mapping

Map materials flows to identify opportunities for materials exchange

### 4. Collaboration

Collaborative proposals for the next steps



- UMaine project to Explore Opportunities for Circular Economy Exchanges in Maine
- Leverage work MAME completed in Phase I of the Waste 2 Wares project (pre-COVID)

A screenshot of a Mainobiz article. The article title is 'Allagash Brewing' and the sub-headline is '“Waste to Wares” initiative led by the Manufacturers Association of Maine (MAME) 98% of brewery waste out of landfill Recycling CO-OP from partnership to be correctly recycled'. The article includes a photo of Rob Tod and Luke Truman at the brewery. Below the photo is a small diagram showing a beer bottle being recycled into a cardboard box. The article is by Renee Cordes and mentions that Allagash Brewing Co. in Portland, founder Rob Tod speaks enthusiastically about reducing waste as he does about product expansion at Maine's largest brewer. It's known for its Belgian-style ales.

# Calling out some folks in attendance...



- **Brad Hittle** – American Rheinmetall (Chair of the MAME BOD)
- **Mike Duguay** – Commissioner - DECD
- **Mark Manuel** – Industrial Marketing
- **Hal Casey** – Executive Director, SkillsUSA Maine
- The Maine FIRST, Lego League and VEX Robotics teams. . .from Falmouth, Gorham, Oakland and Yarmouth, as well as the Coliseum here in Portland. . . all sponsored by the **Robotics Institute of Maine (RIM)**



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MAINE'S BUSINESS NEWS SOURCE



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# Mainebiz



SPRING 2023

## A Guide to Career Opportunities in Maine

# WORK FOR ME

- 16 MaineWorks offers a helping hand
- 18 Rural hospitals seeking workers
- 26 How Manufacturers bridging awareness gap
- 44 Jobs with growth potential
- + Even more on training and jobs

FOUNDED PARTNERS: MAINE DEPARTMENT OF LABOR, MAME

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# Mainebiz

December 26, 2023

## 2024 Book of Lists

### THE LIST

ESTABLISHED BY STEPHEN WILSON

#### Largest manufacturers in Maine

Ranked by number of Maine employees

| Rank | Manufacturer           | Maine location | Product or service | Headquarters      | 2023  |
|------|------------------------|----------------|--------------------|-------------------|-------|
| 1    | Performance Food Group | 1,001          | Food processing    | Worcester, MA     | 1,001 |
| 2    | Eastman Kodak          | 1,001          | Printing           | Eastman Kodak, MA | 1,001 |
| 3    | Procter & Gamble       | 1,001          | Consumer products  | Cincinnati, OH    | 1,001 |
| 4    | The Anderson Companies | 1,001          | Printing           | Anderson, MA      | 1,001 |
| 5    | General Dynamics       | 1,001          | Defense            | Wilmington, MA    | 1,001 |
| 6    | ABB Lathrop            | 1,001          | Printing           | Worcester, MA     | 1,001 |
| 7    | Eastman Kodak          | 1,001          | Printing           | Eastman Kodak, MA | 1,001 |
| 8    | General Dynamics       | 1,001          | Defense            | Wilmington, MA    | 1,001 |
| 9    | General Dynamics       | 1,001          | Defense            | Wilmington, MA    | 1,001 |
| 10   | General Dynamics       | 1,001          | Defense            | Wilmington, MA    | 1,001 |

16 Sheridan Construction

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General Contracting  
Construction Management



# Advocacy

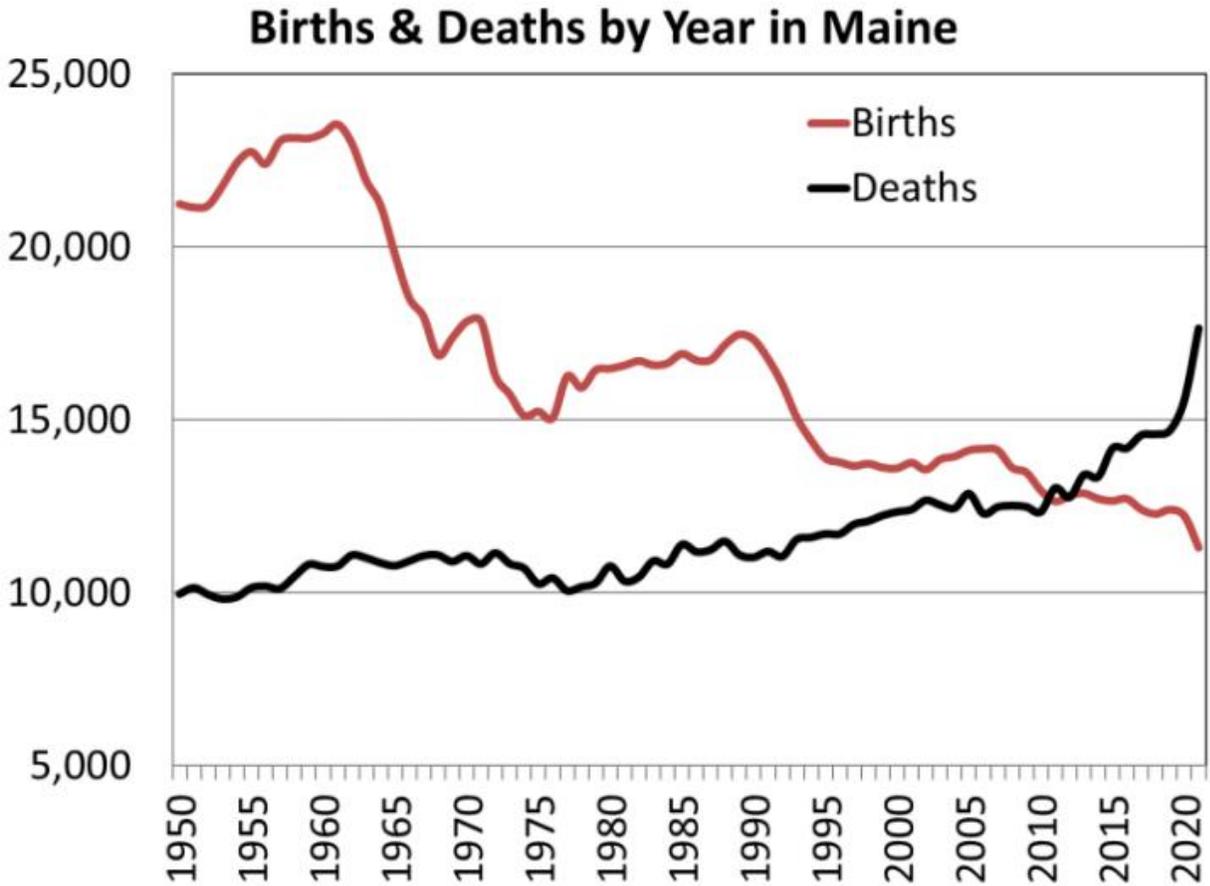
Maine economic competitiveness

**Maine Jobs Council** – Joe Edwards, Founding Member

Promoting the Growth  
of Foundational Jobs  
for Maine

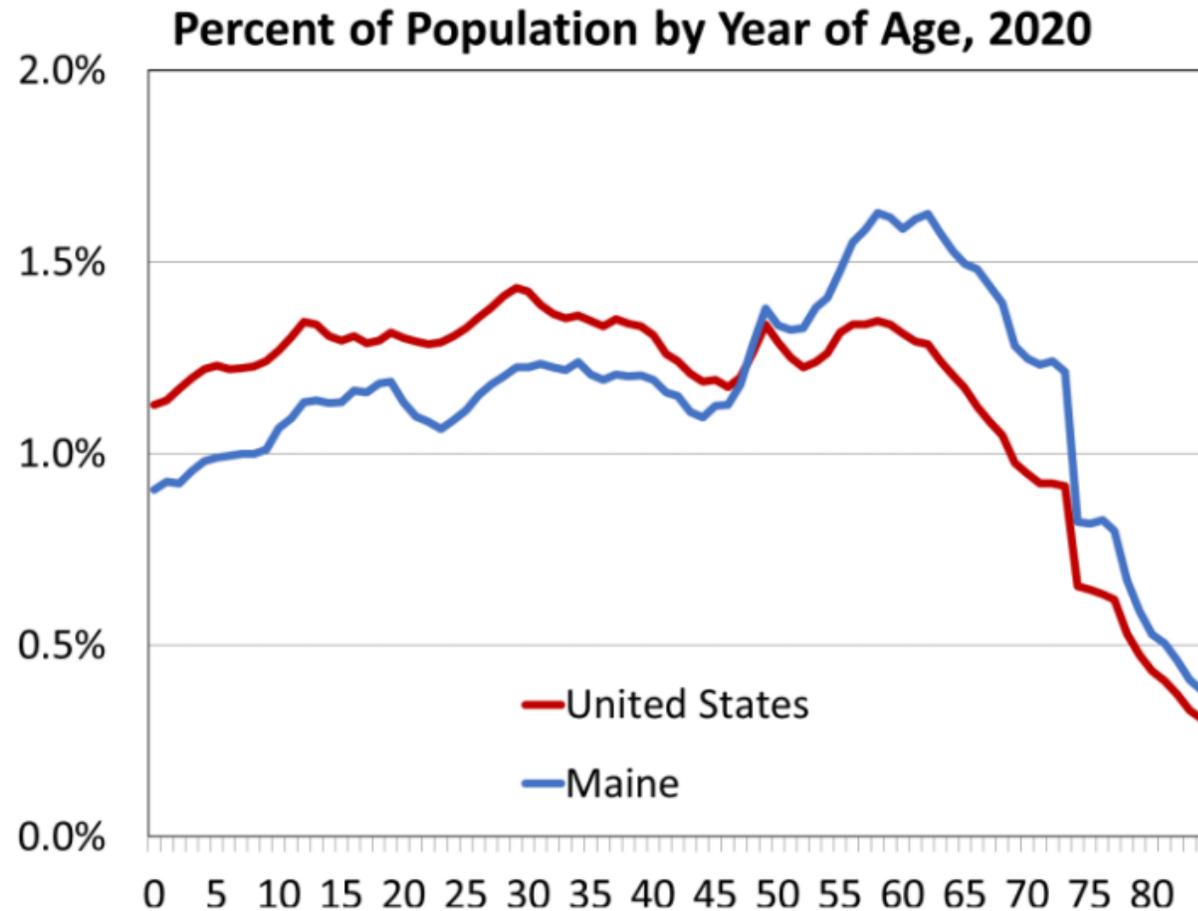


# Widening Gap Between Births and Deaths



**MAINE**  
**DEPARTMENT OF**  
**LABOR**  
*Center for Workforce  
Research and Information*

# Maine is Oldest State (Median age = 45)



**MAINE**  
**DEPARTMENT OF**  
**LABOR**  
*Center for Workforce  
Research and Information*

# Maine Attracts Low Investment



**\$0.799**

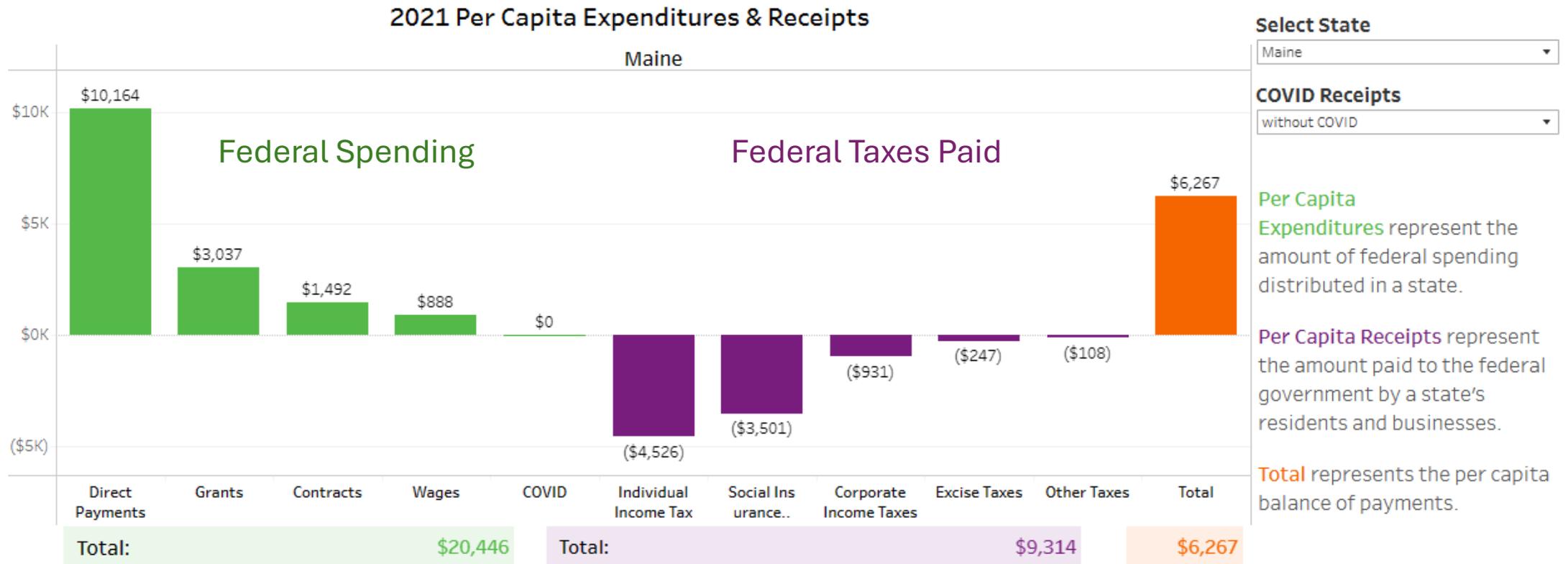
Per \$1K GDP

**Venture Capital per GDP**

National: \$7.65

# Maine is Reliant on Federal Spending

## (14<sup>th</sup> Highest Differential Between What Maine Pays in Federal Taxes vs. What it Receives in Federal Funding)



Maine receives \$1.67 for every \$1.00 it pays in federal taxes



**WE HAVE ONE SIMPLE MISSION:**

Advocate for economic prosperity  
by promoting the growth of  
foundational jobs in Maine.



# ME Companies Sold Out of State

Pottles  
Exactitude  
Sure Winner Foods  
On Target  
Sprinkler Systems  
Keiser Homes  
Murray Oil  
Hartt Transportation  
Norris, Inc.  
Kenoco  
Central Maine Power  
Kris-Way Truck Leasing  
Central Tire  
Augusta Fuel Company

Maritime Energy convenience stores  
Getchell Brothers  
Deering Lumber  
Emery Waterhouse  
Applicator Sales  
Downeast Energy  
Heutz Oil  
Covetrus  
Enefco  
Pathway's Inc.  
Dead River  
Group Dynamics  
Hogan Tire  
Gagne & Son Concrete

Thayer Corp.  
Maine Manufacturing  
NH Bragg  
Grafman's  
James W. Sewall  
Oakhurst Dairy  
JSI Store Fixtures  
UniTel  
Dodge Oil  
Brockway-Smith  
Bangor Hydro  
Temp Shield  
Eastern Fire Protection  
HA Mapes



# Maine's Economy Ranks Low Among States

State Economy Rankings

| Overall Rank ▼ | State         | Total Score ↕ | Economic Activity ↕ | Economic Health ↕ | Innovation Potential ↕ |
|----------------|---------------|---------------|---------------------|-------------------|------------------------|
| 51             | West Virginia | 24.12         | 48                  | 47                | 51                     |
| 50             | Louisiana     | 25.04         | 50                  | 51                | 49                     |
| 49             | Alaska        | 28.48         | 51                  | 44                | 41                     |
| 48             | Mississippi   | 28.67         | 41                  | 50                | 45                     |
| 47             | Hawaii        | 28.76         | 46                  | 41                | 48                     |
| 46             | Oklahoma      | 31.89         | 49                  | 34                | 39                     |
| 45             | Kentucky      | 34.17         | 27                  | 43                | 46                     |
| 44             | North Dakota  | 35.25         | 47                  | 15                | 42                     |
| 43             | South Dakota  | 35.29         | 43                  | 5                 | 50                     |
| 42             | Maine         | 35.36         | 38                  | 31                | 43                     |
| 41             | Arkansas      | 35.49         | 31                  | 28                | 47                     |
| 40             | Wyoming       | 36.74         | 39                  | 22                | 38                     |
| 39             | Iowa          | 36.76         | 45                  | 29                | 27                     |
| 38             | Rhode Island  | 36.87         | 42                  | 33                | 30                     |
| 37             | Ohio          | 37.59         | 30                  | 46                | 33                     |
| 36             | New Mexico    | 38.07         | 40                  | 48                | 15                     |
| 35             | Nebraska      | 40.17         | 35                  | 13                | 36                     |

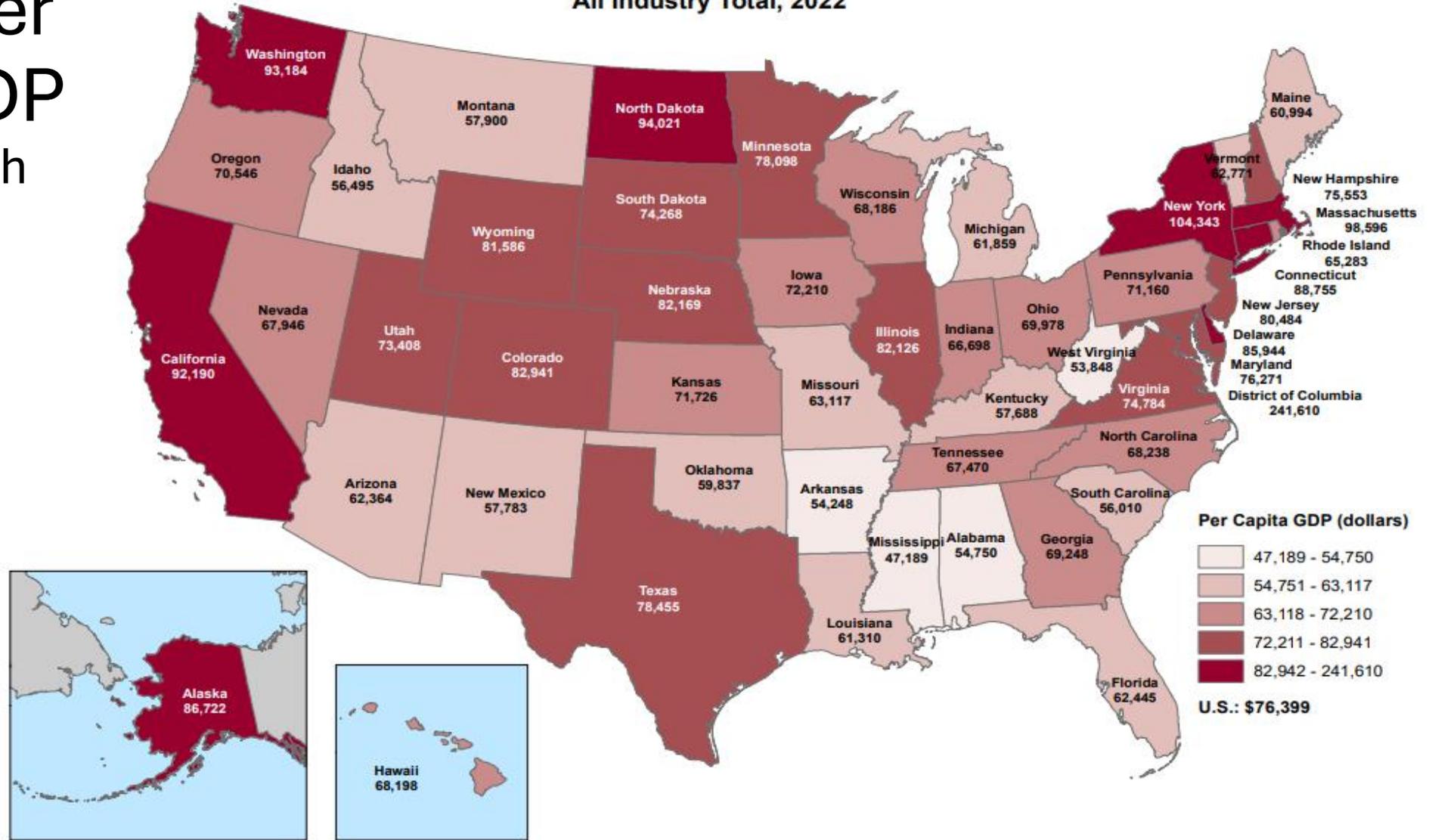


Analysis: WalletHub

Sources: Data used to create this ranking were collected from the U.S. Census Bureau, Bureau of Labor Statistics, Bureau of Economic Analysis, Deloitte, United Health Foundation, American Legislative Exchange Council, Mercatus Center at George Mason University, Council for Community and Economic Research, [ATTOM, a property data provider](#), United States Patent and Trademark Office, [usgovernmentspending.com](#), National Science Foundation, and Ewing Marion Kauffman Foundation.

# Maine's Per Capita GDP Ranks 11<sup>th</sup> Lowest

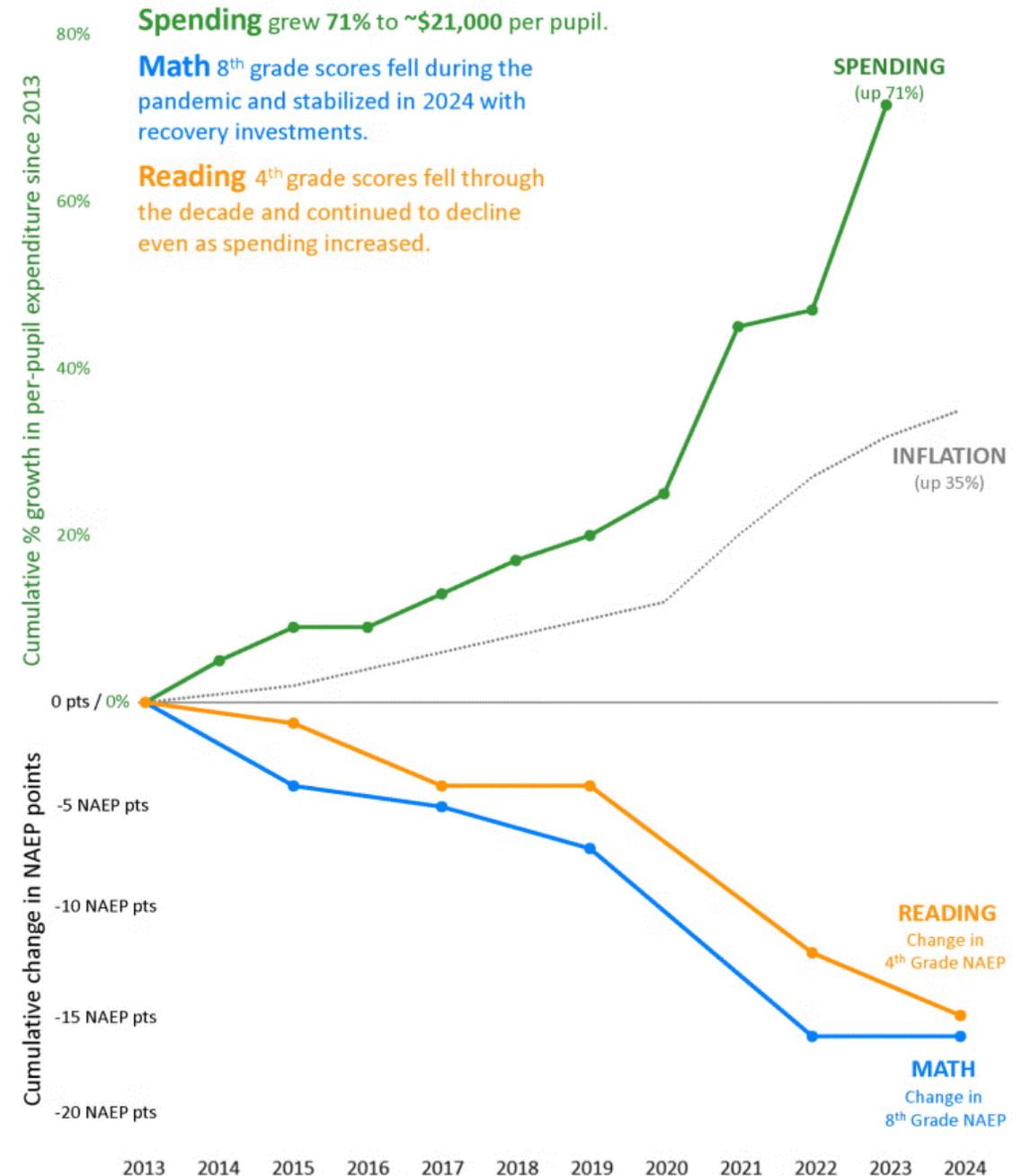
Per Capita Real GDP, by State  
All Industry Total, 2022



Source: Institute for Policy & Social Research, The University of Kansas; data from U.S. Bureau of Economic Analysis and U.S. Census Bureau, Vintage 2022 Population Estimates.

# Educational challenges are real

Maine change in spending versus reading and math scores since 2013



# Maine Ranks Poorly for Business

## AMERICA'S TOP STATES FOR BUSINESS 2022

| OVERALL RANK ↓ | STATE ↓                        | WORKFORCE ↓ | INFRA-STRUCTURE ↓ | COST OF DOING BUSINESS ↓ | ECONOMY ↓ | LIFE, HEALTH & INCLUSION ↓ | TECHNOLOGY & INNOVATION ↓ | BUSINESS FRIENDLINESS ↓ |
|----------------|--------------------------------|-------------|-------------------|--------------------------|-----------|----------------------------|---------------------------|-------------------------|
| 50             | <a href="#">Mississippi</a>    | 47          | 46                | 17                       | 49        | 33                         | 48                        | 50                      |
| 49             | <a href="#">Alaska</a>         | 34          | 50                | 46                       | 38        | 11                         | 50                        | 12                      |
| 48             | <a href="#">Louisiana</a>      | 42          | 48                | 5                        | 45        | 45                         | 45                        | 41                      |
| 46             | <a href="#">New Mexico</a>     | 25          | 39                | 29                       | 42        | 44                         | 43                        | 44                      |
| 46             | <a href="#">Hawaii</a>         | 19          | 39                | 50                       | 48        | 3                          | 40                        | 35                      |
| 45             | <a href="#">Rhode Island</a>   | 39          | 44                | 47                       | 41        | 16                         | 33                        | 36                      |
| 44             | <a href="#">West Virginia</a>  | 43          | 42                | 10                       | 39        | 34                         | 49                        | 49                      |
| 43             | <a href="#">Maine</a>          | 43          | 49                | 40                       | 32        | 2                          | 44                        | 19                      |
| 42             | <a href="#">New Jersey</a>     | 23          | 34                | 43                       | 50        | 8                          | 27                        | 47                      |
| 41             | <a href="#">Arkansas</a>       | 38          | 30                | 13                       | 24        | 37                         | 40                        | 29                      |
| 39             | <a href="#">Nevada</a>         | 29          | 5                 | 20                       | 25        | 41                         | 47                        | 7                       |
| 39             | <a href="#">Connecticut</a>    | 14          | 39                | 45                       | 47        | 17                         | 25                        | 11                      |
| 38             | <a href="#">Oklahoma</a>       | 35          | 26                | 2                        | 34        | 48                         | 30                        | 14                      |
| 36             | <a href="#">South Carolina</a> | 29          | 27                | 28                       | 13        | 47                         | 31                        | 23                      |



# Maine Ranks Poorly for Business

## Forbes Best States For Business

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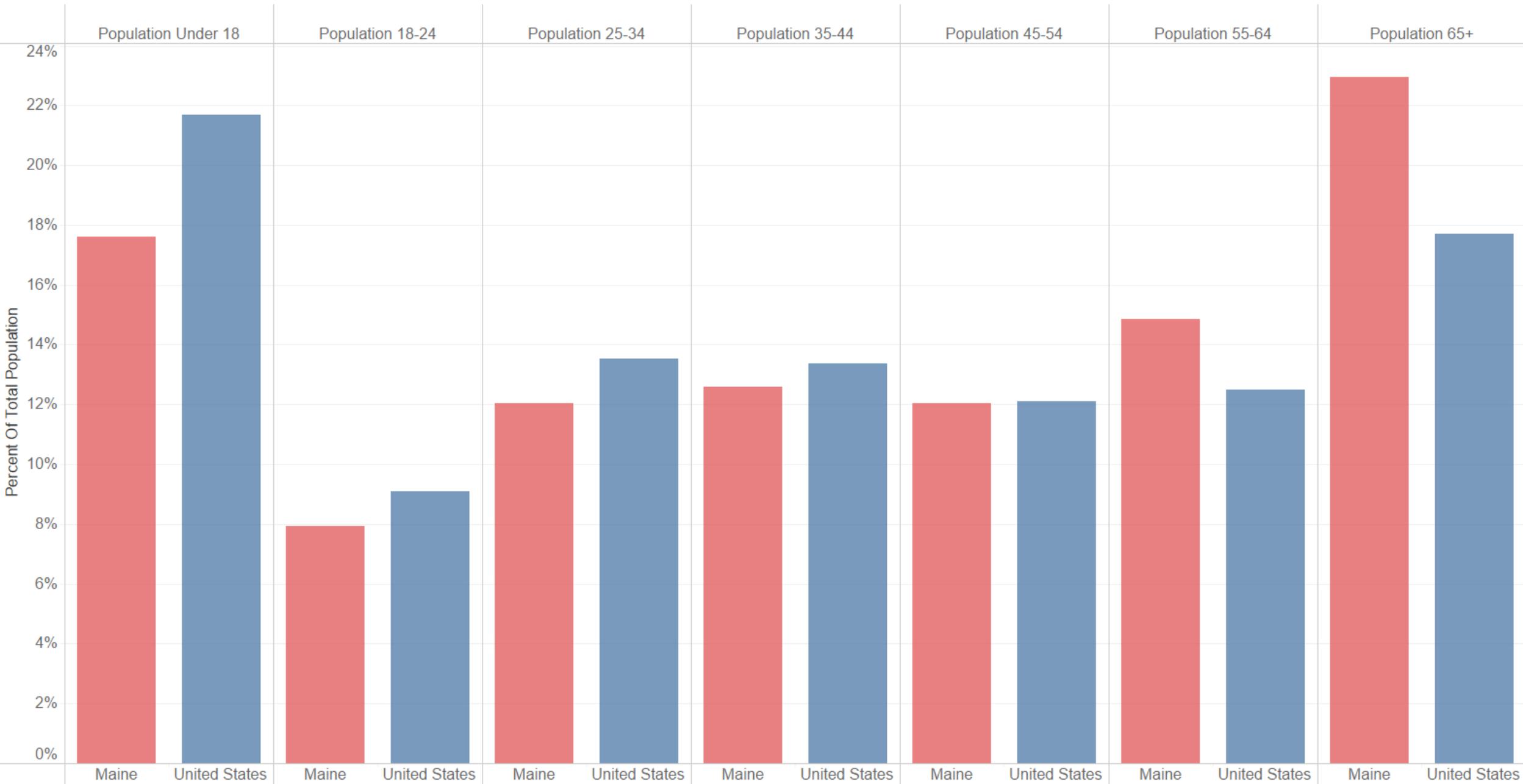
| Rank | State         | Business Costs Rank | Labor Supply Rank | Regulatory Environment Rank | Economic Climate Rank | Growth Prospects Rank | Quality of Life Rank | Population |
|------|---------------|---------------------|-------------------|-----------------------------|-----------------------|-----------------------|----------------------|------------|
| #50  | Alaska        | 42                  | 45                | 31                          | 50                    | 43                    | 50                   | 737,400    |
| #49  | West Virginia | 13                  | 50                | 50                          | 48                    | 50                    | 46                   | 1,805,800  |
| #48  | New Mexico    | 34                  | 46                | 46                          | 44                    | 15                    | 49                   | 2,095,400  |
| #47  | Hawaii        | 50                  | 32                | 38                          | 24                    | 49                    | 40                   | 1,420,500  |
| #46  | Louisiana     | 9                   | 48                | 47                          | 47                    | 46                    | 47                   | 4,660,000  |
| #45  | Vermont       | 46                  | 21                | 45                          | 43                    | 38                    | 33                   | 626,300    |
| #44  | Maine         | 43                  | 27                | 48                          | 34                    | 28                    | 34                   | 1,338,400  |

# Legislative Reform

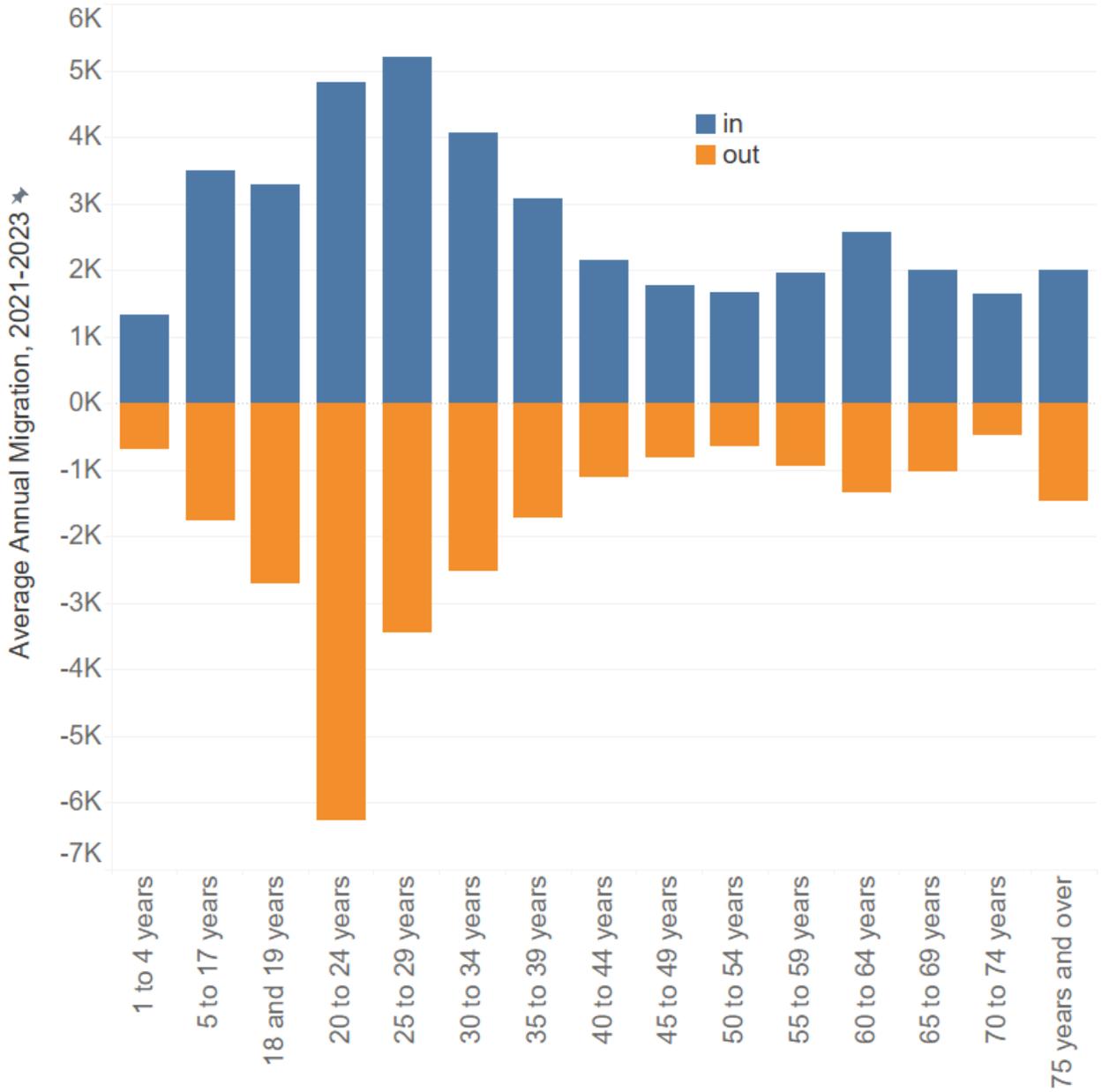
1. Limit number of bills either per legislator or overall
2. Longer, staggered terms
3. Require compliance with Strategic Plan, co-ordinate bill reviews
4. Establish goals and metrics: workforce, investment, housing, immigration, SAWW, etc.



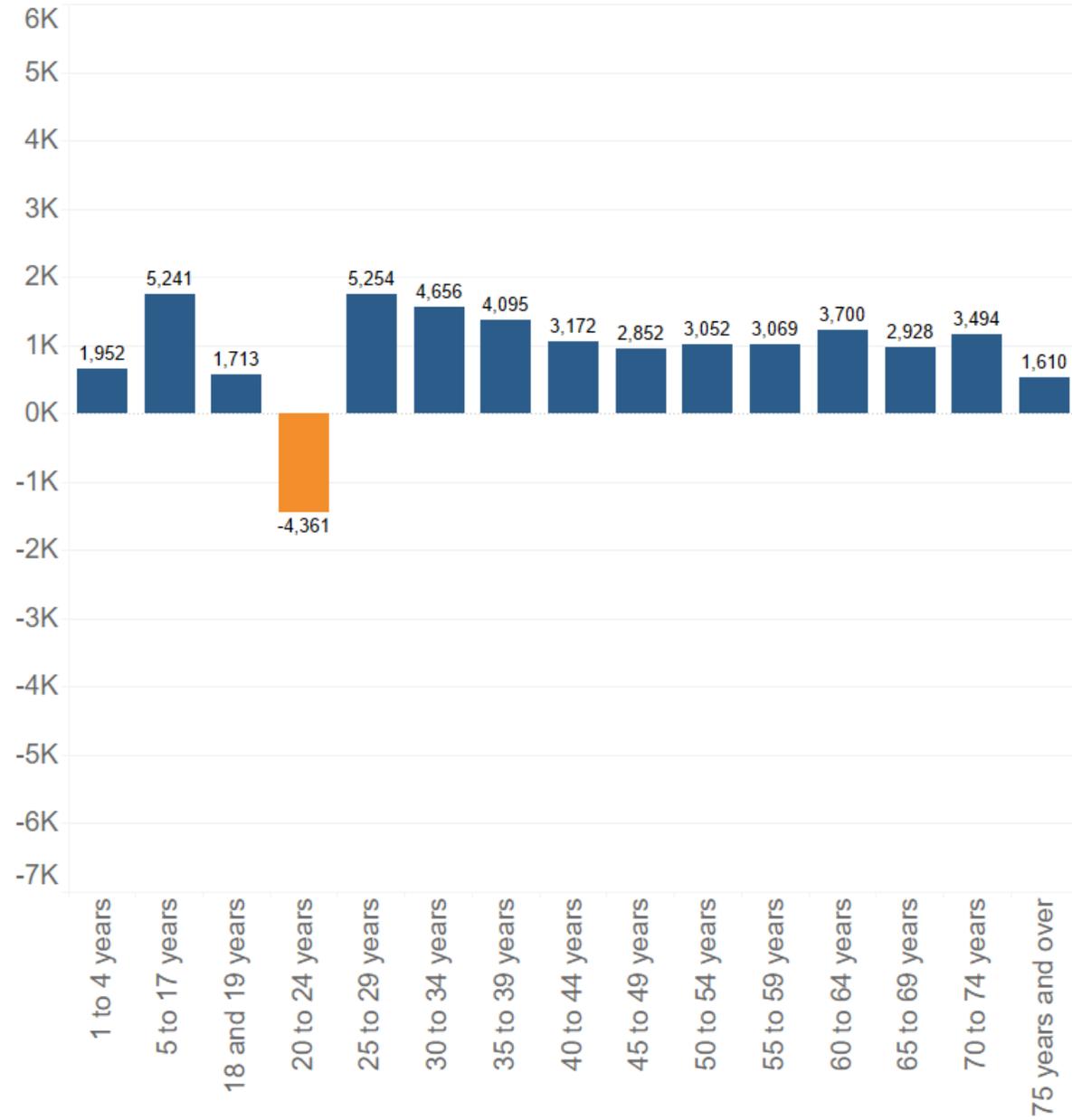
# Maine & United States Population by Age, 2023



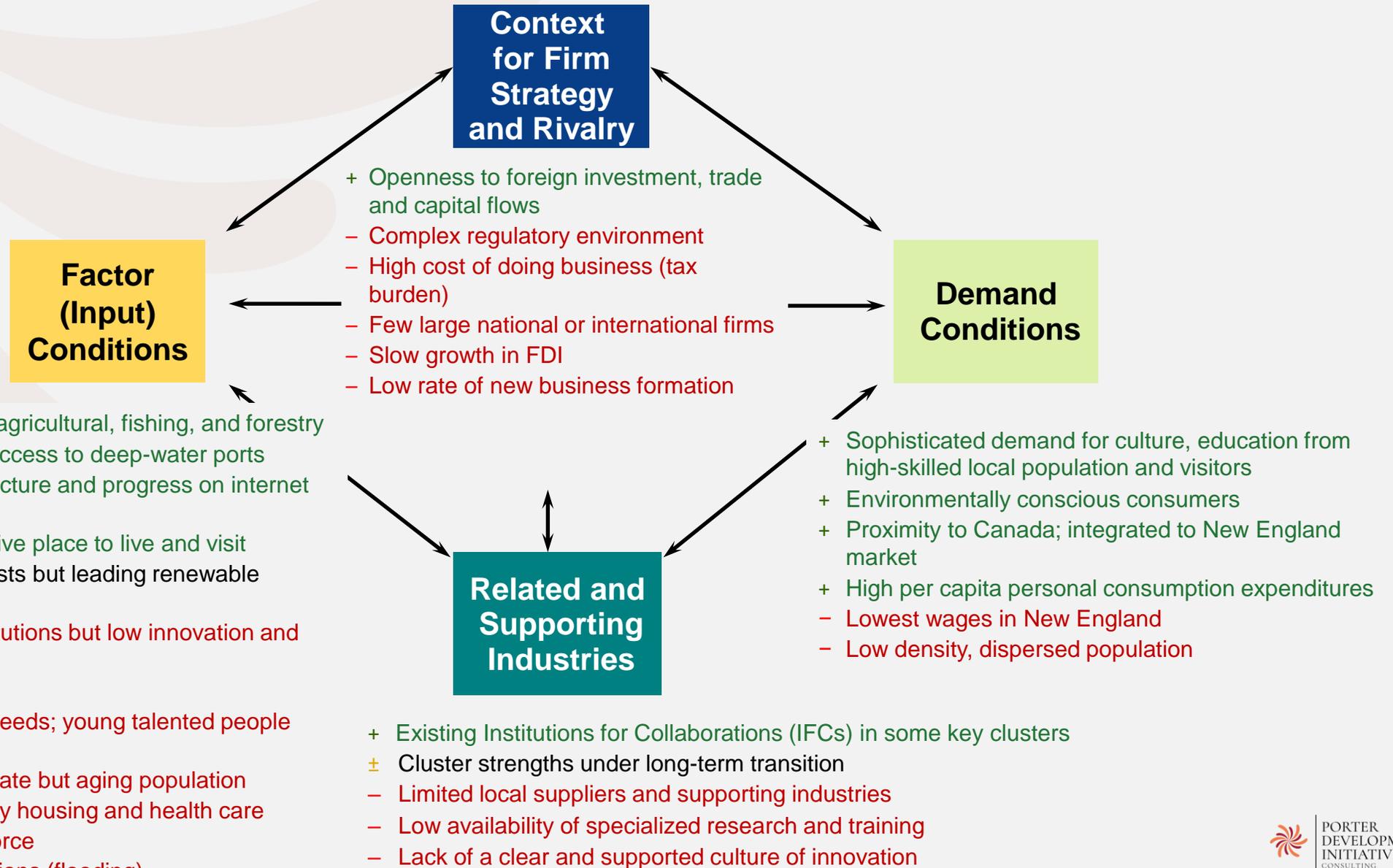
### Domestic Migration to Maine by Age, 2021-2023



### Net Domestic Migration to Maine by Age, 2021-2023



# Assessing Maine's Business Environment 2024



THANK YOU



**MAINE  
JOBS  
COUNCIL**



# Advocacy

A summary of activities (to date) in the 132<sup>nd</sup> (Special) Session of the legislature

**Maine Street Solutions** - Michael Saxl, Managing Principal



# Update on Legislative Activities

A summary of activities in the 132nd Session of the legislature

Friday, May 16, 2025



**Peter Gore**

[pgore@mainestreetolutions.com](mailto:pgore@mainestreetolutions.com)



**Michael V. Saxl**

[msaxl@mainestreetolutions.com](mailto:msaxl@mainestreetolutions.com)



**Sara Vanderwood**

[svanderwood@mainestreetolutions.com](mailto:svanderwood@mainestreetolutions.com)

# 10 Tips For Effective Advocacy

- 1. Deal with reality, not ideology.** Pick policies that have broad support and a demonstrated effectiveness in achieving concrete results. Focus on very specific issues rather than vague goals.
- 2. Demonstrate significant community-based support.** Constantly demonstrate to elected officials that you represent many groups, institutions and voters in your community.
- 3. Know who the players are and who to target.** You must first determine whether the action you want government to take needs to be taken at the federal, state or city level. It is also important to know which committees and subcommittees will need to take action before your policy goal is adopted. Also, get to know not just elected officials, but also their staff members, who often do the “real” work and make major decisions.
- 4. Identify specific policy goals and a realistic strategy to achieve them.** Figure out who, exactly, at what level of government will need to vote for the policy and then develop a person-by-person strategy to get them to take the actions you want. Politics is the art of the possible, so make sure to ask for something that may be difficult but not impossible for a politician to support.
- 5. Know your facts.** Have at your fingertips as much relevant and resonant information as you can get. Then always have a one-page fact sheet with easy-to-understand charts and even photos that describe both the problem you want solved and specifically what actions you want the elected official to take to solve it.

# 10 Tips For Effective Advocacy

6. **Keep it simple.** Use language that everyone understands, even if they are not experts on your issue. Every communication you have — in person, by phone, or in writing — should have one basic message, e.g.: “There is a housing crisis; it can and must be solved; here’s what you can do.”
7. **Choose real results over confrontation.** Nine times out of ten, you will get far better results meeting with elected officials face-to-face rather than picketing against them. In fact, confrontations often turn potential allies against your cause. Remember that opponents today on one issue can be allies tomorrow on another issue.
8. **Convince the undecided.** Don’t spend all your time “preaching to the converted.” You will make much more progress focusing your energies on the people who are still uninformed and/or unconvinced.
9. **The media is the message.** Use the social media, mass media, free cable TV and community newspapers to get your message out and educate people on the issue. Public awareness will help build a constituency for your issue.
10. **Repeat your basic message over and over (and over) again.** (See rule #6.) Just because you’ve said your message before, don’t be afraid to repeat it until you get the right person’s attention.

# Labor

- **LD 60- An Act to Allow Employees to Request Flexible Work Schedules**
  - Submitted testimony in opposition
- **LD 61- An Act to Regulate Employer Surveillance to Protect Workers**
  - Submitted testimony in opposition
- **LD 998- An Act Regarding an Employer's Authority to Prohibit an Employee from Storing a Firearm in the Employee's Vehicle**
  - Submitted testimony in opposition
- **LD 799- An Act to Report Gender Wage Gaps**
  - Signed coalition letters with other interested parties or business groups
  - Submitted testimony in opposition to

# Labor Continued

- **LD 1219- An Act to Increase State Funding for the Campuses of the University of Maine System and to Raise the Minimum Hourly Wage for Employees of the System (Emergency)**
  - Submitted testimony in opposition
- **LD 1587- An Act to Establish Greater Alignment of Penalties for Certain Labor Law Violations**
  - Submitted testimony in opposition
- **LD 799- An Act to Report Gender Wage Gaps**
  - Submitted testimony in opposition
- **Paid FML Update**

# Tax

- **LD 229- An Act to Bring Fairness in Income Taxes to Maine Families by Adjusting the Tax Brackets and Tax Rates**
  - Submitted testimony in opposition
- **LD 1047- An Act to Impose an Additional Tax on Certain Unearned Income**
  - Submitted testimony in opposition
- **LD 1089- An Act to Permanently Fund 55 Percent of the State's Share of Education by Establishing a Tax on Incomes of More than \$1,000,000**
  - Submitted testimony in opposition
- **LD 191-An Act to Support Maine Businesses by Establishing a Pass-through Entity Tax and Tax Credit**
  - Organized a coalition letter to the TAX Committee and Governor Mills in support of LD 191-MAME's PTET tax bill

# LD 191 Coalition Letter to Governor Mills

## Manufacturers Association of Maine

2025 Executive BOARD

15 April 2025

Chair of the Board  
**Brad Hittle**  
 American Rheinmetall

The Honorable Janet T. Mills  
 1 State House Station  
 Augusta, ME 04333

Vice Chair of the Board  
**Derek Fox**  
 Elmet Technologies

Dear Governor Mills:

Treasurer & Investment Chair  
**Samantha Pedersen**  
 Albin, Randall & Bennett

On behalf of the Manufacturers Association of Maine, its membership, and the undersigned coalition of trade association collaborators, we are asking for your support of LD 191, "An Act to Support Maine Businesses by Establishing a Pass-through Entity Tax and Tax Credit".

Secretary & Business Svcs. Chair  
**Neal Prescott**  
 Prescott Associates

Maine is overdue to join the thirty six (36) states and one locality that have enacted a pass-through entity tax credit (PTETC). States ranging ideologically from Massachusetts to Mississippi started adopting the PTETC mechanism after the US Congress and Trump Administration capped state and local tax (SALT) deductions to \$10,000 in 2017. The SALT cap hurts many small and mid-sized businesses since they do not receive a federal tax deduction for most state income taxes paid as well as any real estate, excise, and sales taxes. Passing the PTETC will level the playing field for Maine businesses competing with other states.

Past-Chair  
**Judith Borelli**  
 Texas Instruments

Executive Director  
**Mike Roughton**

Put simply, LD 191 will lower the overall tax burden for S corps and partnerships, while at the same time generating new revenue for the State of Maine. To all of us, that seems like a no-brainer.

Please actively support LD 191.

Sincerely,



Mike Roughton  
 Executive Director

Page 1 of 2  
 LD 191 Coalition Letter Mills 041525

87 Winthrop Street,  
 Augusta, ME 04330  
 info@mainemfg.com  
 P: 207-747-4406  
 www.mainemfg.com

Satellite office: 2 Portland Fish Pier  
 Maine International Trade Center  
 Suite 211  
 Portland, ME 04101



Page 2 of 2  
 LD 191 Coalition Letter

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 info@mainemfg.com  
 P: 207-747-4406  
 www.mainemfg.com

Satellite office: 2 Portland Fish Pier  
 Maine International Trade Center  
 Suite 211  
 Portland, ME 04101



# Workforce Development

- **LD 1627- An Act Regarding Workforce Development, Education Reform and Talent Retention**
  - Submitted testimony in support
- **LD 1740- An Act to Establish the Maine Science, Technology, Engineering, Arts and Mathematics Matching Grant Program**
  - Submitted testimony in support

# Environmental

- **LD 1423-EPR- An Act to Improve Recycling by Updating the Stewardship Program for Packaging**
  - Support of the Forest Products Council amendment

# Other

- **LD 1649- Resolve, to Establish the Blue Ribbon Commission to Study the Operations of the Legislature**  
(Emergency)
  - Submitted testimony in support
- **LD 1673- Resolve, to Establish a Pilot Project to Facilitate the Inclusion of Economic Impact Statements in the Legislative Process**  
(Emergency)
  - Submitted testimony in support
- **LD 483- An Act to Authorize a General Fund Bond Issue to Secure Prosperity for Maine Families and Businesses**  
(Bond Issue)
  - Submitted testimony in support
- **Data Privacy**

**THANK YOU!**



MaineStreet  
Solutions

Please let us know how we can help:

- Michael Saxl (207) 329-7159
- Sara Vanderwood (207) 485-4945



# Panel Dialogue

Moderator: Mike Saxl – Maine Street Solutions

# NETWORKING BREAK





Michael Duguay – Commissioner. Maine DECD

# SMART manufacturing

**Workforce** – Camoin Associates, Jim Damichis & Angela Hallowell

**Industry 4.0** – University of Maine and the Roux Institute, John Belding and Jack Lesko

# Advanced Manufacturing Workforce Strategy

Prepared for: Manufacturers Association of Maine  
May 16, 2025



Prepared by:



# Today's Presenters



Jim Damicis  
Senior Vice President  
Camoin Associates  
[Jim@camoinassociates.com](mailto:Jim@camoinassociates.com)



Angela Hallowell  
Senior Analyst  
Camoin Associates  
[angela@camoinassociates.com](mailto:angela@camoinassociates.com)

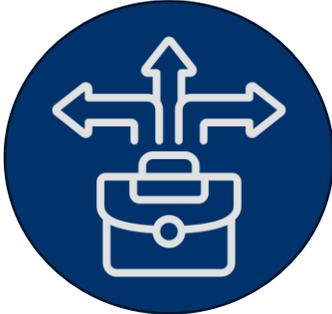
# DATA TOOLBOX



Workforce  
Gap Analysis



Survey  
Results



Career Pathways



Training  
Dashboard



Strategic  
Framework

# Study of In-Demand Occupations

This study focuses on 28 occupations across three occupation groups: 1) Engineering and Engineering Technology, 2) Production Management, and 3) Production Occupations.

## Engineering and Engineering Technology Occupation Group

- Architectural and Engineering Managers
- Software Developers
- Chemical Engineers
- Electrical Engineers
- Industrial Engineers
- Mechanical Engineers
- Mechanical Drafters
- Engineering Technologists and Engineering Technicians

## Production Management Occupation Group

- General and Operations Managers
- Industrial Production Managers
- First-Line Supervisors of Mechanics, Installers, and Repairers
- First-Line Supervisors of Production and Operating Workers

## Production Occupation Group

- Electrical and Electronics Repairers, Commercial and Industrial Equipment
- Industrial Machinery Mechanics
- Millwrights
- Maintenance and Repair Workers, General
- Electrical, Electronic, and Electromechanical Assemblers
- Structural Metal Fabricators and Fitters
- Miscellaneous Assemblers and Fabricators
- Machinists
- Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic
- Welders, Cutters, Solderers, and Brazers
- Inspectors, Testers, Sorters, Samplers, and Weighers
- Packaging and Filling Machine Operators and Tenders
- Coating, Painting, and Spraying Machine Setters, Operators, and Tenders
- Computer Numerically Controlled Tool Operators
- Paper Goods Machine Setters, Operators, and Tenders
- Production Workers, All Other

# Overview of Maine Manufacturing

---

**55,600** total manufacturing jobs in Maine, 2023

=

**2,516 jobs** in Engineering & Engineering Technology

**4,343 jobs** in Production Management

**15,432 jobs** in Production

**33,309 jobs** All Other Manufacturing Occupations

# Average Annual Openings (2023-2028)

218

Engineering & Engineering  
Technology Occupations

399

Production Management  
Occupation

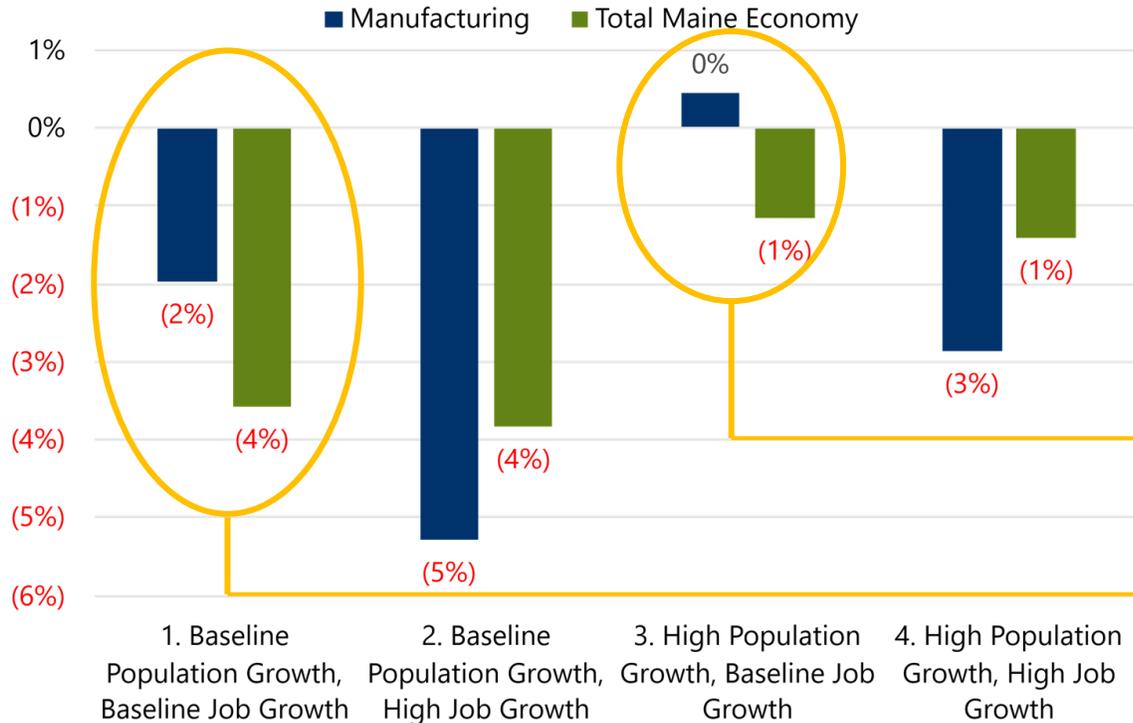
1,687

Production Occupations

# Workforce Gap Projections Summary

Across Maine's economy, the workforce gap is projected to be significant. High Job Growth scenarios that lead to higher demand for labor are projected to see the most severe workforce gaps.

## Workforce Gap Projections as a Share of Total Jobs (2023 to 2028)



While these occupations are projected to have the largest gap under the high job growth scenarios, low job growth projections at baseline insulate the occupation group from larger shortfalls in those scenarios.

Most likely scenario, assuming no optimistic growth

$$\text{Gap} = \text{total demand} - \text{total number of people to fill demand}$$

# WORKFORCE GAP ANALYSIS

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Maine's Manufacturing Sector is projected to have a shortfall of up to **3,100** workers, or 5% of total demand, depending on the scenario.

## Engineering & Engineering Technology Occupations

Gap ranging from 100 to 200  
workers

## Production Management Occupations

Gap ranging from 0 to 300  
workers

## Production Occupations

Gap ranging from 0 to 900  
workers

# SURVEY FINDINGS

275

Total Respondents

102

Company Leaders

30

Current Workers

111

Potential Workers

46

Career Advisors

## Shape the Future of Maine's Advanced Manufacturing Workforce

We need your input to help shape the future of Maine's advanced manufacturing workforce. Your insights will help build a roadmap that addresses workforce challenges, skills and training needs, and job quality.

### Why it's important?

Whether you're hiring employees, working in advanced manufacturing, exploring a career, or helping guide students toward jobs in the sector, **your feedback is essential.** This survey will directly contribute to creating stronger workforce development programs that prepare Maine's workers for future jobs in this vital industry.

### SURVEY DETAILS:

The survey takes just 10-15 minutes to complete, and your response will make a big difference in shaping the future of advanced manufacturing careers in Maine. Take the survey today and help shape the future of Maine's workforce!

### Who Should Respond:

- Company leadership
- Current Workers
- Potential Workers
- Career Advisors



# 46%

## Company Leaders

46% of respondents indicated that they were unaware of all programs listed as options, and 0% of respondents indicated that they had used any of the programs.

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# 53%

## Current Workers

Over half of current worker respondents chose a career in Advanced Manufacturing due to the competitive pay.

# 78%

## Potential Workers

While 78% of respondents indicated they are very likely or likely to consider a career in Advanced Manufacturing, one-third of respondents feel that job opportunities are limited.

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# 32%

## Career Advisors

32% of career advisors responded that they are not very familiar with career opportunities in advanced manufacturing in Maine, while 61% reported that they are somewhat familiar.

# What We Heard from Business Leaders

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## Challenges Facing Businesses

- Skills gaps among new hires
- Access to housing and childcare as workforce barriers
- Misconceptions about the industry
- Tight labor market competition
- Shift scheduling challenges

## Potential Opportunities

- Expand education and industry collaboration
- Address structural barriers to improve workforce participation
- Promote apprenticeships, certifications, and internal advancement through career pathways
- Shift public perception through public outreach and career awareness

# CAREER PATHWAYS

Based on in-demand manufacturing occupations

Engineering Technologies & Technicians

Electrical Engineers

Machinists

Machine Operators

Production Managers

Welders



## Career Pathway

There are multiple entry points to becoming a Production Manager. While most job postings require a 4-year degree, typically in engineering, there are other entry points. For example, around 5 years of experience as a production technician with some leadership experience may be considered in place of an engineering degree. First-line supervisor jobs may require apprenticeships in lieu of college education.



## Production Managers

There are many types of production managers.

As a first step, this job will often take the form of a line supervisor/team lead, which entails managing a team of production workers. For example, this person will be responsible for overseeing the day-to-day operations of a production line, among other tasks. After this initial role, there are many paths an individual can take in their career as a production manager, depending on their interests, experience, and unique skills. This could include titles like Business Leader, Supply Chain Manager, Director of Operations, or even potentially Plant Manager.



# Training Dashboard

## Dashboard includes:

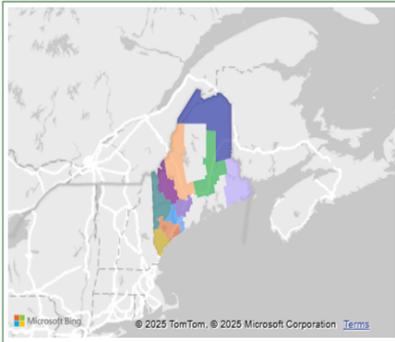
- Type of Program
- Program Provider
- Program
- Job Category
- Additional Resources

Note: This dashboard is still in progress.

**Welcome!** [Find Your Ideal Career Path!](#) Use the filters below to search for career opportunities apprenticeship programs by **provider, type, program, job category and county**. Start exploring and find the perfect opportunity for you!  
[Need a fresh start?](#) Click the **Reset Filters** button to clear your selections and start a new search!

Provider: 
 Type: 
 Job Categories: 
 County: 
Reset Filters ↻

| Type           | Provider   | Program                             |
|----------------|--|-------------------------------------|
| Apprenticeship | <a href="#">Aero Heating &amp; Ventilating, Inc.</a>                 | Duct Installation Technician        |
| Apprenticeship | <a href="#">American Apprenticeship Round Table (AART)</a>           | Advanced Front Line Supervisor      |
| Apprenticeship | <a href="#">American Apprenticeship Round Table (AART)</a>           | Manufacturing Production Technician |
| Apprenticeship | <a href="#">American Apprenticeship Round Table (AART)</a>           | Marine Designer                     |
| Apprenticeship | <a href="#">Associated Builders &amp; Contractors of Maine, Inc.</a> | Electrician                         |
| Apprenticeship | <a href="#">Associated General Contractors of Maine, Inc.</a>        | Construction Equipment Operator     |
| Apprenticeship | <a href="#">Associated General Contractors of Maine, Inc.</a>        | Electrician                         |



**Not Sure What Career to Choose? Compare Jobs & Salaries Here!**

| Job Title   | Job Category           | Job Level | Salary Range         | Requires College Degree? |
|---|------------------------|-----------|----------------------|--------------------------|
| <a href="#">Advanced Manufacturing Technician</a> | Production             | Mid       | \$57,000 - \$101,000 | No                       |
| <a href="#">Assembler</a>                         | Assembly & Fabrication | Entry     | \$32,000 - \$45,000  | No                       |
| <a href="#">Assembly Manager</a>                  | Assembly & Fabrication | Mid       | \$59,000 - \$154,000 | No                       |
| <a href="#">Assembly Supervisor</a>               | Assembly & Fabrication | Mid       | \$52,000 - \$122,000 | No                       |
| <a href="#">Assistant Plant Manager</a>           | Production             | Senior    | \$85,000 - \$152,000 | Yes                      |

**Additional Resources**

- [Maine Jobs](#)
- [Maine Apprenticeship Program](#)
- [Maine Career Catalyst](#)
- [Maines Community Colleges](#)

# STRATEGIC FRAMEWORK

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## Each priority includes:

- Key actions
- Metrics
- Leading partners
- Resources required
- Anticipated outcomes
- Alignment with existing strategies
- Supporting examples/case studies

## PRIORITY A:

Increase access to existing resources for employers to recruit, retain, train, and upskill employees in Advanced Manufacturing, particularly micro-manufacturers.

## PRIORITY B:

Grow the labor pool for Maine's Advanced Manufacturing Industry by expanding workforce participation efforts and attracting new talent to Maine.

## PRIORITY C:

Promote widespread awareness of open jobs and career pathways for current or potential workers, emphasizing regional availability and opportunities.

## PRIORITY D:

Demonstrate the range of opportunities in advanced manufacturing for middle and high school students through workshops, promotions, and hands-on learning.

# Accessing this Toolbox

**MAME's website will host all of the following information:**

- Full report
- Executive Summary
- Workforce Gap Analysis
- Survey Analysis
- Strategic Priorities
- Career pathways
- Training inventory



Scan the QR Code to access the website today!

Note: Reports will be added over the next few weeks.





Thank  
You

# CONTACT US



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Camoin Associates | (518) 899-2608



# Our Manufacturing Future – Workforce & Industry 4.0

*Industry 4.0 Roadmap  
Program and DECD Grant  
Opportunity*



*John Belding*



*Jack Lesko*

***Smart Manufacturing is....***

***the information-driven, event-driven, efficient and collaborative orchestration of business, physical and digital processes within plants, factories and across the entire value chain.***

How can I implement Smart  
Manufacturing/Industry 4.0 practices  
in my business?

# Market Study: Industry 4.0 for Maine

funded by...



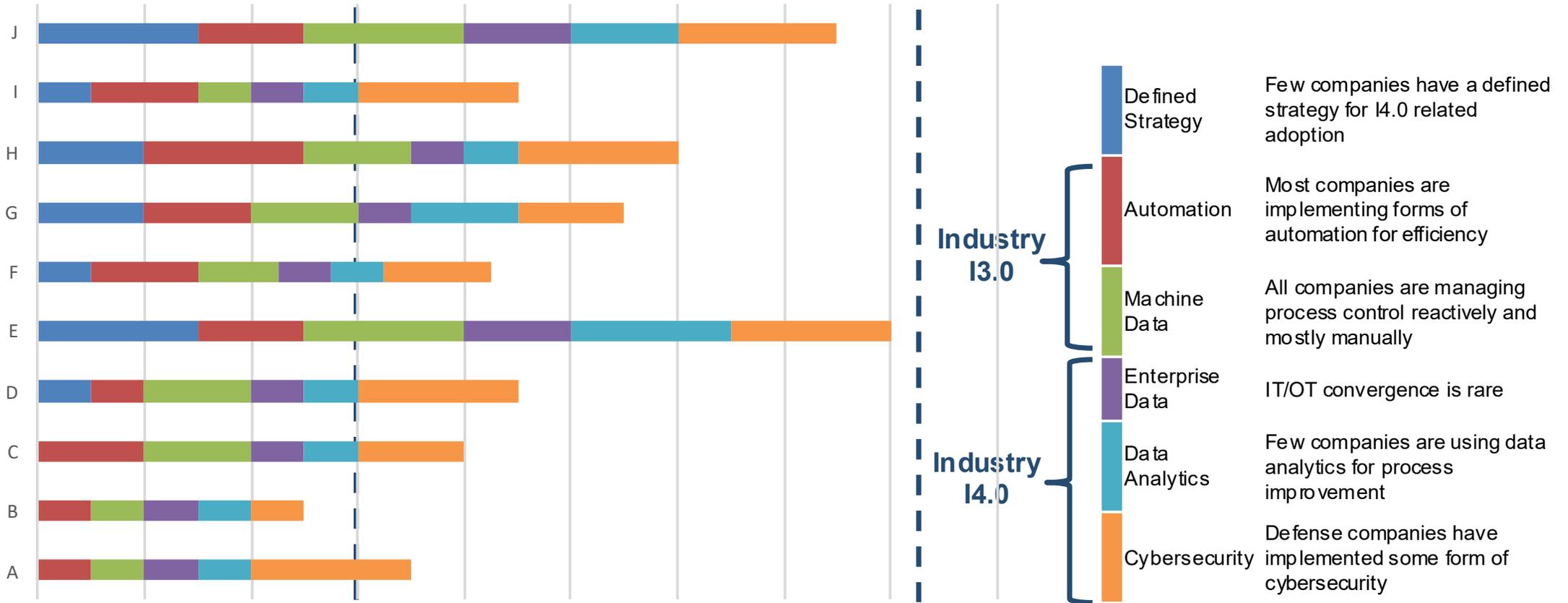
Market assessment to understand potential Industry 4.0 initiatives in Maine



- What are Maine company needs?
- What are the successful program models in other regions?
- What are the needed skills?

# Most Companies Have Adopted Industry I3.0 Technologies – Few Have Embraced Industry I4.0

Relative Adoption of I4.0 Characteristics



Score per attribute: 13.0

0 Not started  
 1 Planning  
 2 Implementing  
 3 Refining

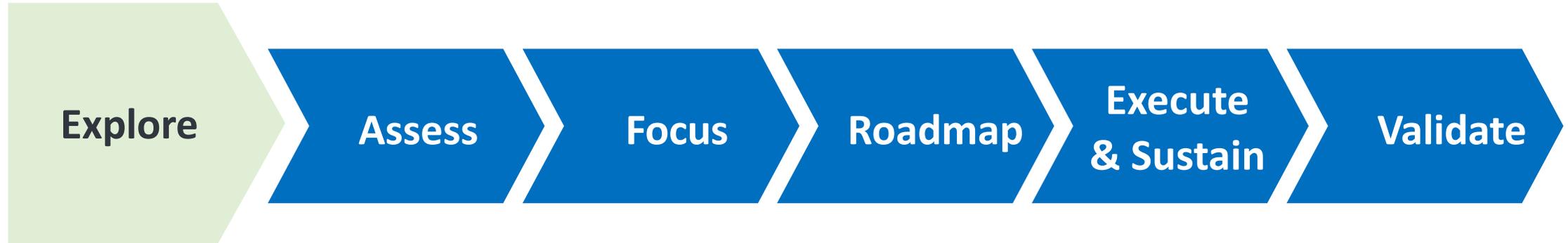
14.0

# Assistance Needs of Companies and Implications for Potential Solutions

## Key Observations

- **Awareness and education** for **company leaders** to understand what I4.0 (digital transformation)
- Need an **independent, unbiased assessment** and recommended roadmap from a trusted resource
- **Spending constraints** for investment in the transformation to I4.0
- **Inadequate supply of skilled labor** to I4.0 transformation in thinking and implementation
- Require **implementation assistance in-house competency & outside resource**

# CESMII Smart Manufacturing Acceleration Framework



- What's Possible
- Why SM?
- Democratized Technology

- Current State
- Current Opportunities

- Challenges, Opportunities
- Future State

- Business Drivers
- Proj Definition

- SM Foundation
- Implement Solutions
- Change Management

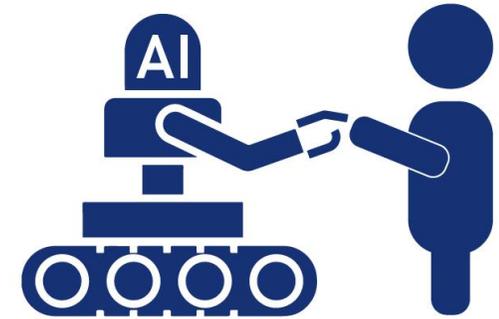
- Validate Success
- Business value



Smart Manufacturing/Industry 4.0 Assessment +  
Implementation Road Mapping

Smart Manufacturing/Industry 4.0  
Project Implementation(s)

# Smart Manufacturing / Industry 4.0 Roadmap & Implementation



Phase 1

Phase 2

Industry 4.0 Readiness Assessment  
and Implementation Roadmap

De-risking & Industry 4.0  
Implementation



***Smart Manufacturing is....***

***the information-driven, event-driven, efficient and collaborative orchestration of business, physical and digital processes within plants, factories and across the entire value chain.***

# Smart Manufacturing Roadmap Team



**Jack Lesko**

*Director of  
Engineering  
Research,  
The Roux Institute*



**Bill Lenart**

*Research Scientist,  
The Roux Institute*



**Shaun Gill**

*Project Manager,  
Maine Manufacturing  
Extension  
Partnership*



**Bradley  
Denholm**

*Associate Director of  
Workforce  
Development,  
Advanced  
Manufacturing Center*



**John Belding**

*Director, Advanced  
Manufacturing Center*



# Smart Manufacturing Roadmap Program



- What's Possible
- Why SM?
- Democratized Technology
- Current State
- Current Opportunities
- Challenges,
- Opportunities
- Future State
- Business Drivers
- Proj Definition

*Interested in a  
Smart  
Manufacturing  
Roadmap?*



Smart Manufacturing/Industry 4.0 Assessment +  
Implementation Road Mapping

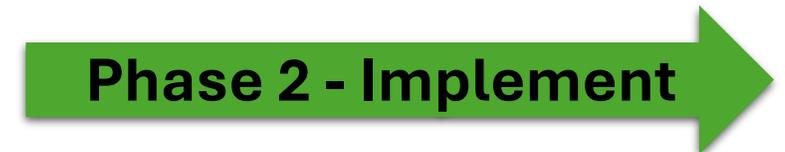
Jack Lesko  
[j.lesko@northeastern.edu](mailto:j.lesko@northeastern.edu)

## Follow-on Implementation Assistance

- Roux Institute Data Analytics Training & AI Solutions Hub
- Roux Institute Brunswick Landing – I4.0 Prototyping & Demonstration
- Maine MEP Lean, Six sigma
- UMaine, Automation research at AMC
- UMaine, BOT Loft Robotics and I4.0 training
- SMCC Mantech program CNC machining, Additive Metal, Robotics



- |   |   |
|---|---|
| <ul style="list-style-type: none"><li>• SM Foundation</li><li>• Implement Solutions</li><li>• Change Management</li></ul> | <ul style="list-style-type: none"><li>• Validate Success</li><li>• Business value</li></ul> |
|---|---|



Smart Manufacturing/Industry 4.0 Project Implementation(s)

# AMC Bot Loft Robotics and I4.0 training

**FACTORY  
AUTHORIZED  
TRAINING:**

**Doosan Robotics**

**ABB**

**FANUC**



**UNIVERSAL ROBOTS**

## MICRO CREDENTIALS:



Silver  
(Theory)



Gold  
(Hands-on)

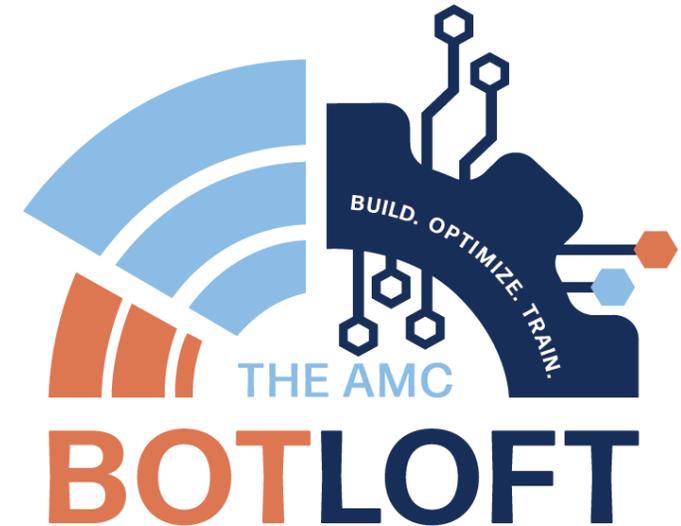


Practical Application  
(OTJ)



“Certified Industry 4.0 Automation Systems Specialist”

- Electrical Systems, Motor Controls, VFD's, Wiring
- Pneumatics
- Mechanical Power Systems
- Programable controllers (w/ troubleshooting)
- Robot Systems and Integration
- Communications and Smart Sensors



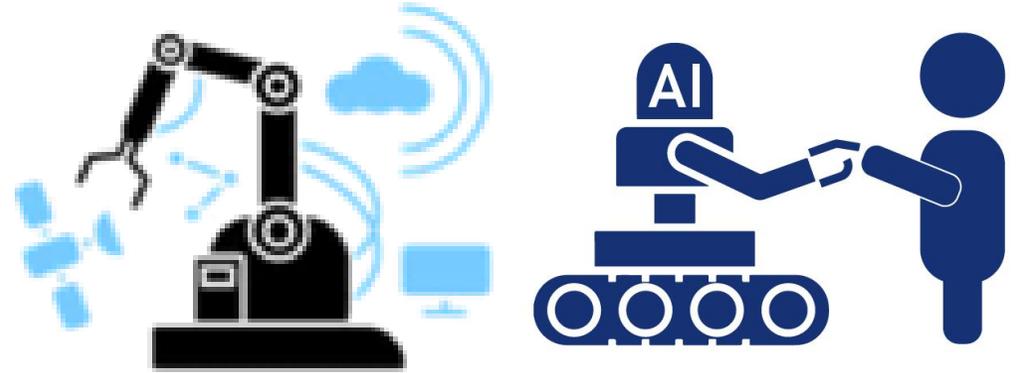


AMC Robotics and  
Industry 4.0 training  
center

Increase the skill level  
of Maine's incumbent  
workforce



# Smart Manufacturing / Industry 4.0 Roadmap & DECD Program Opportunity



## Phase 1

Industry 4.0 Readiness Assessment  
and Implementation Roadmap

Jack Lesko

[j.lesko@northeastern.edu](mailto:j.lesko@northeastern.edu)

## Phase 2

De-risking & Industry 4.0  
Implementation

John Belding

[John.belding@Maine.edu](mailto:John.belding@Maine.edu)



# Panel Dialogue

Moderators: Bill Whittier – Maine MEP  
John Lewis – Synergy Workforce Solutions



# MAME Annual Awards

Pine Tree Award (MWPA) and Manufacturer of the Year (MAME)

# MMCTF 2025 Scholarship awards



## SkillsUSA

| Medal  | Name           | School                             |
|--------|----------------|------------------------------------|
| Gold   | Morgan Waltz   | Mid-Coast School of Technology     |
| Gold   | Joe Felice     | Mid-Coast School of Technology     |
| Gold   | Booker Sylvain | Sanford Regional Technical Center  |
| Gold   | Dawson Lizotte | Mid-Maine Technical Center         |
| Silver | Adam Gamache   | Lewiston Regional Technical Center |
| Silver | Jacob Barstow  | Mid-Coast School of Technology     |
| Silver | Ian Gallagher  | Mid-Maine Technical Center         |
| Bronze | Ayden Barr     | Lewiston Regional Technical Center |

## MAME “named” scholarships

### Jacob Barstow

Oceanside HS in Rockland  
Mid-Coast School of Tech

### Miles Smith

Mountain Valley HS Rumford  
Reg 9 School of Applied Tech

### Matthew Beaulieu

Madawaska Middle/High School  
St John Valley Tech Center

# CEDARWORKS



# Pine Tree Award

**CedarWorks – Rockport, ME**



# Manufacturer of the Year

**Fiber Materials, Inc. / Tex Tech, Biddeford, ME**



# The last word...

- **MAME Golf outing** for the Scholarship foundation
  - September 18, 2024 – Spring Meadows Golf Club (Gray)
- **Maritime Industry Day**
  - October 1, 2025 – Albacore Park, Portsmouth, NH
- **MAME Annual meeting**
  - November 6, 2025 – Location TBD

SAVE THE DATE!





# SAFE travels home