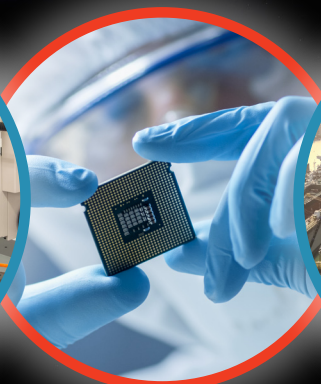


THE ECONOMIC IMPACT OF ADVANCED MANUFACTURING:

A GLOBAL PERSPECTIVE,
A LOCAL OPPORTUNITY



UNITED STATES COMPETITIVE COST STRUCTURE



In the current U.S. economy and global market, U.S. manufacturers face a set of **structural disadvantages** that erode U.S. competitiveness and offset many of the productivity gains achieved through innovation and the relentless pursuit of efficiencies. The United States manufacturing sector is competing on a global scale with one hand tied behind its back due to imposed structural cost burden.

U.S. Imposed Structural Cost Burden¹:

Structural cost refers to the **types and relative proportions of fixed and variable costs that a business incurs in order for it to operate**. The government has the ability to impose legislation that proposes enormous burdens to the structural cost of doing business, such as:



CORPORATE TAX BURDEN

Levies placed on the profit of a firm by government for the purpose of raising tax revenue



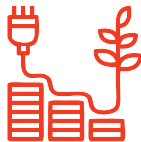
EMPLOYEE BENEFITS

Mandated, government-funded programs which require employers to contribute, e.g. FICA (Social Security and Medicare), workers compensation insurance, unemployment compensation contributions. Companies with over 50 employees carry the burden of health insurance and those with 10 or more employees must comply with the Family and Medical Leave Act (FMLA)



REGULATORY COMPLIANCE

An organization's adherence to laws, regulations, guidelines and specifications relevant to its business processes. These areas include environmental compliance, consumer protection reporting, labor compliance and financial reporting



ENERGY COSTS

Need to be factored in to running and operating a business, since energy is a necessity for the operation of all businesses. As governments mandate requirements to Renewable Portfolio Standards, the cost of energy increases



TORT COSTS

Business torts are not committed against persons or property, but rather represent harm done to the organization's intangible assets. Four common types of business tort include tortious interference, restraint of trade, theft of trade secrets, and fraudulent misrepresentation

Advanced Manufacturing's Impact:

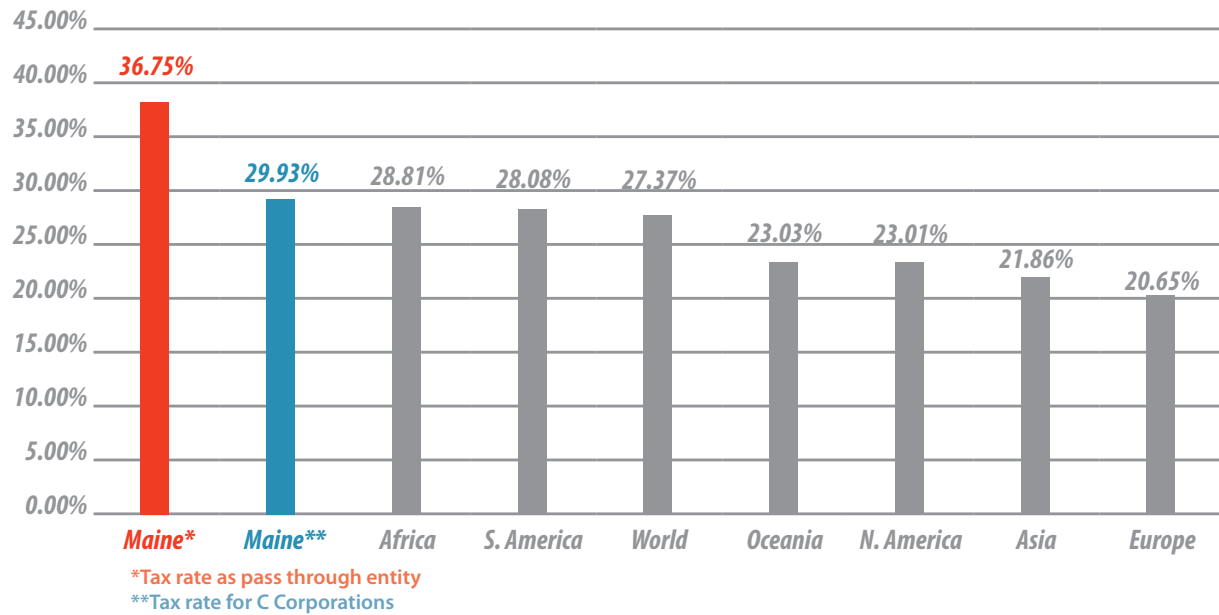
- **Advanced Manufacturing is the largest exporting sector in the American economy**
- **Advanced Manufacturing directly and indirectly stimulates economic activity**
- **Advanced Manufacturing's scope reaches far past just their industry, while creating American jobs in the process. No other sector invests more in research, development, and innovation**

Many national studies and reports only present manufacturing as a small percentage of the Gross Domestic Product (about 11%) and only 9% of the full-time equivalent employment, **but this is not an accurate representation of manufacturing's impact on the American economy**. The goods that manufacturing firms represent are only a small portion of the larger nonmanufacturing industries' supply chain, without which the economy would suffer.

¹Manufacturing Institute's 2011 Report on the Structural Cost of U.S. Manufacturing

²Tax Foundation: Corporate Tax Rates Around the World. Published November 27, 2018

2018 Average Top Corporate Income Tax Rate²:



"Declines have been seen in every major region of the world including the largest economies. The recent tax reform in the United State brought the statutory corporate income tax rate from among the highest in the world closer to the middle of the distribution. Whereas in 2017 the United States had the fourth highest corporate income tax rate in the world, it now ranks towards the middle of the 208 countries and tax jurisdictions surveyed"²

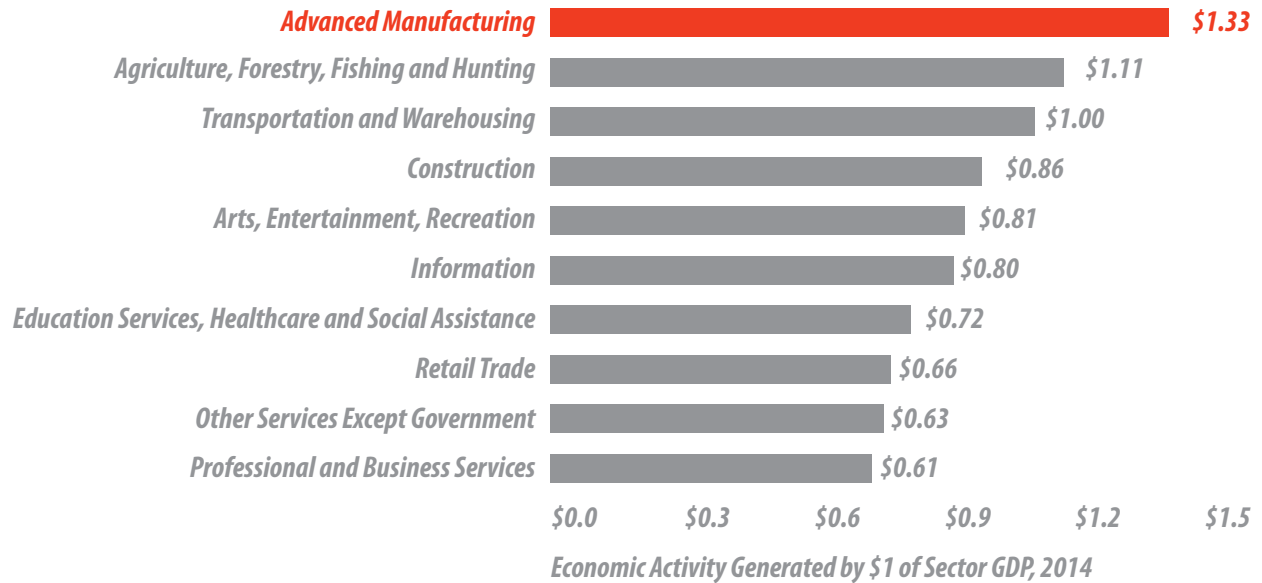


**THE WORLD BANK RANKS
THE UNITED STATES AS
THE 8TH EASIEST COUNTRY
IN THE WORLD TO
CONDUCT BUSINESS**

THE ECONOMIC IMPACT ON THE U.S. ECONOMY



Advanced Manufacturing Has The Strongest Direct Multiplier Effect³:

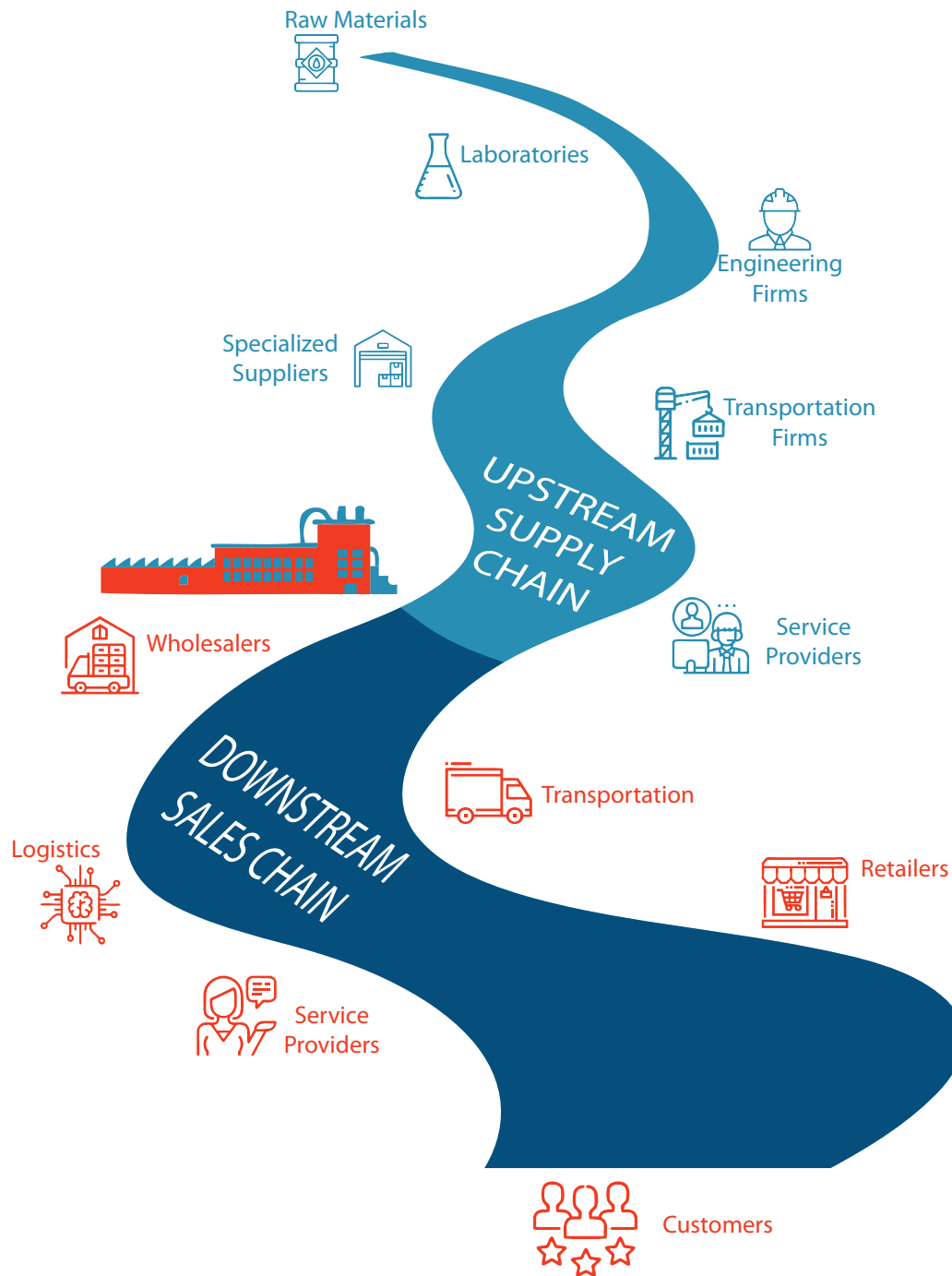


**THE MANUFACTURING
SECTOR REPRESENTS
1/3 OF THE VALUE-ADDED
U.S. ECONOMY AND OF THE
AMERICAN WORKFORCE**



The Multiplier Effect: A Value-added Sales / Supply Chain

The diagram illustrates the impact that advanced manufacturing has on the economy through its supply chain, both before and after production. To limit the economic impact to strictly the product itself would be a false representation of the importance advanced manufacturing plays and the lives that it effects.



For every dollar of domestic manufacturing value-added destined for the manufactured goods for final demand, another \$3.60 of value-added is generated elsewhere, [and] for each full-time equivalent job in manufacturing dedicated to producing value for final demand, there are 3.4 full-time equivalent jobs created in nonmanufacturing industries.⁴

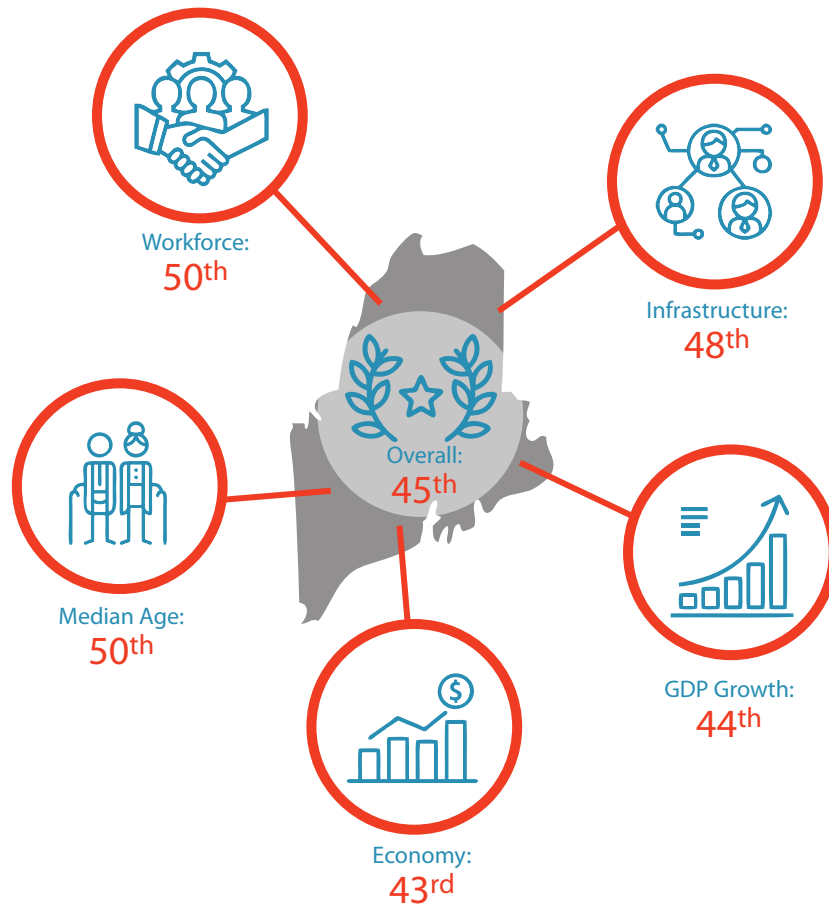
³The Manufacturing Institute: Manufacturing's Multiplier Effect is Stronger Than Other Sectors Data Source: U.S. Bureau of Economic Analysis, Annual Input-Output Tables. Updated April, 2014

⁴MAPI Foundation: How Important is U.S. Manufacturing Today? Published September, 2016

MAINE BY THE NUMBERS



Attracting and Conducting Business: How Does Maine Rate according to 2018 CNBC study?

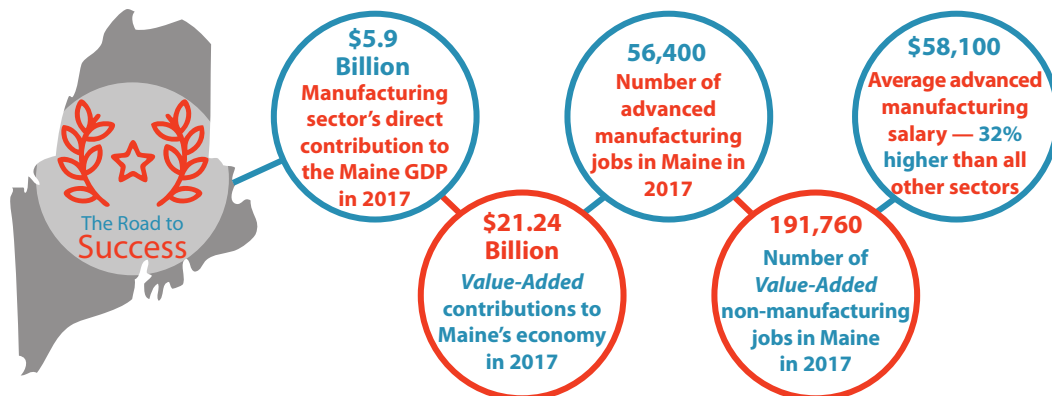


In 2018 CNBC published a study on America's top states for doing business. The study ranks all fifty states based on actual performance on ten categories that are important to attracting and doing business. The study scored all 50 states on more than 60 measures of competitiveness, developed with input from a broad and diverse array of business and policy experts, official government sources, the CNBC Global CFO Council, YPO and the states themselves.⁵

- Maine came in with a significantly low overall ranking⁵ — 45th
- Maine scored poorly in critical, individually ranked categories
- Although no one factor is to blame, poor marks can be attributed to such challenges as a high corporate tax burden,⁵ a “bleak economic growth forecast” and the oldest median age anywhere in the country: 44.7

Maine's Advanced Manufacturing Economy — The Numbers Speak

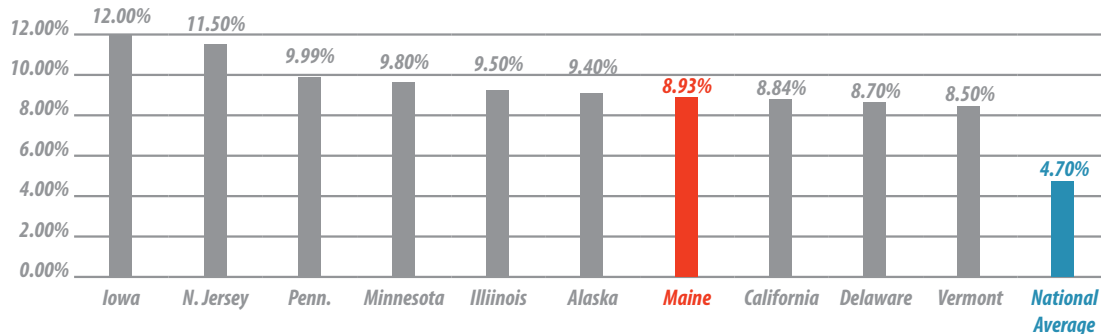
Advanced manufacturing plays an important role in the Maine economy. However, its impact on the Maine economy is exponentially more than just what shows up on annual reports.



⁵CNBC Study: America's Top States for Business 2018. Published July 10th, 2018

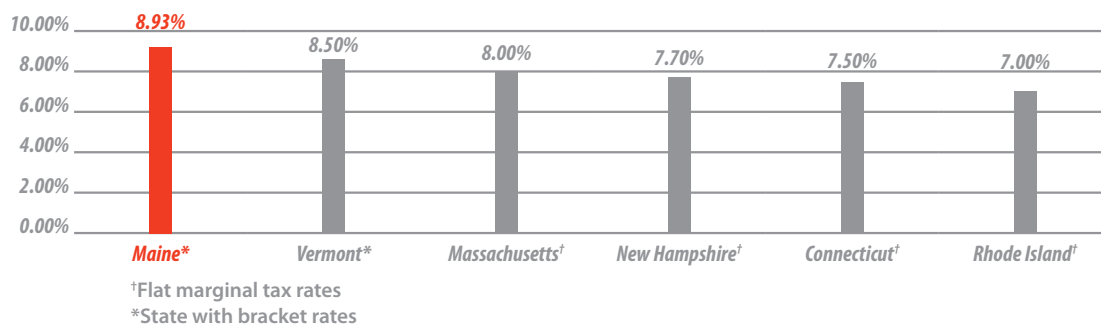
Comparison: 2019 State Corporate Income Tax Rate⁷:

10 Highest Corporate Tax Rates vs. National Average



As of 2019, Maine's state corporate income tax rate ranks 6th highest among all 50 states and highest among New England states.⁶

New England Top Marginal Corporate Tax Rates



MAINE'S OPPORTUNITY: LET MANUFACTURING LEAD THE WAY



Steps To Grow Maine's Economy

A workforce that the 21st century Maine economy requires



- Develop a more productive workforce and encourage innovation through education reforms to combat Maine's growing need for skilled employees in today's evolving economy
- Attract the best and brightest to work here in Maine
- Increase the STEM education programs within the state education system to help close the growing gap in the math and science performance of our students

Creation of state regulatory policies that promote a pro-growth/pro-manufacturing environment



- Tax reforms that position Maine as a business friendly state and provide certainty and stability to all Mainers
- Energy policies that reduce costs, promote sustainability, and develop new energy solutions aimed at preserving the natural beauty of Maine
- Economic policies that incentivize Maine manufacturers' investment into Research and Development projects in order to spur innovation, job creation and economic growth
- Health care policies that reduce costs for both patients and providers
- An industry-led workforce strategy — The Maine Industry Partnership model to assess, provide, train and recruit for jobs in manufacturing

⁶Tax Foundation: Ranking Corporate Income Taxes on the 2019 State Business Tax Climate Index. Published October 3rd, 2018

⁷Tax Foundation: State Corporate Income Tax Rates [for 2019]. Published February 7th, 2019



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The Manufacturers Association of Maine is dedicated to promoting and growing manufacturing.