

# MEASURES OF GROWTH

Performance Measures and Benchmarks to Achieve  
a Vibrant and Sustainable Economy for Maine

2021



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**27<sup>TH</sup>**  
REPORT OF  
THE MEGC



**MEGC**  
Maine Economic  
Growth Council

*Administered by*  
**mdf**

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**Online Report available at:**  
[www.mdf.org/economic-policy-research/measures-of-growth-report](http://www.mdf.org/economic-policy-research/measures-of-growth-report)

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## COMMUNITY



### INFRASTRUCTURE

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## ENVIRONMENT


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 **Exceptional Performance**  
Very high national standing and/or significant positive progress compared to past performance.

 **Needs Attention**  
Very low national standing and/or established trend toward significant decline. The indicator may show improvement but is still viewed as needing attention.

 Favorable movement since the last available data.

 No significant movement since the last available data.

 Unfavorable movement since the last available data.

 Movement unknown since this is a new data set.



# AT THE HEART OF IT ALL, IT'S ABOUT OUR PEOPLE.

## RIISING TOGETHER

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The Maine Economic Growth Council is pleased to present *2021 Measures of Growth*—a tool to support Maine's short-term recovery and long-term prosperity. Even as COVID continues to challenge the day-to-day operation of businesses, schools, hospitals, and households, the Council firmly believes that a long-term perspective is as crucial as ever, and that Maine's enduring assets can be springboards for long-term prosperity.

### **Economic recovery**

Recovery will take time. Since the 1960s, it has taken Maine 38 months on average to regain the jobs lost during a recession.\* The speed of our COVID recovery will depend on many factors, including: the course of the virus, vaccination rates, adherence to public health advisories, and how well we recognize and leverage the cultural and economic shifts resulting from the pandemic. The health of Maine's economy and the wellbeing of its citizens have perhaps never been more interconnected.

### **Enduring assets**

Beyond COVID lies the prospect of brighter days—if we maintain a strategic focus on long-term goals. The Council sees reasons for optimism. Maine's quality of life was attracting new residents before COVID, and the pandemic seems to have accelerated this trend. Maine's safe communities could be increasingly valuable economic assets. Strengthening social and digital connections between rural areas and nearby cities may be a key to future growth, rather than traditional efforts to grow place-bound jobs.

### **Stronger together**

The Council steadfastly believes that Maine has the potential to push through the COVID headwinds and build a stronger, better connected, more resilient, and more equitable economy than ever before. Doing so will require collaboration, disciplined adherence to a long-term strategy, and a renewed commitment to shared prosperity. We look forward to joining other Maine leaders to realize this vision.

### **Report Highlights**

This year, the Council updated its benchmark targets to 2030. This gave us an opportunity to take stock of Maine's progress over the past decade. We see reasons both for celebration and renewed resolve.

For 2021, the Council assigns Gold Stars for progress in Prekindergarten Education, Safety, and Water Quality. We assign Red Flags for needed attention to Housing Affordability, Research and Development, Broadband Connectivity, and Labor Force. This year's report also includes the new measure Greenhouse Gas Emissions. This metric acknowledges the growing impact of climate change on our environment and economy. It tracks Maine's progress toward its statutory emissions reduction goal.

We also updated four benchmarks. The new, more ambitious Broadband benchmark reflects the growing importance of high-speed internet access; the Postsecondary benchmark now includes valuable non-degree credentials; the new Entrepreneurship benchmark measures how well business start-ups are off-setting closures; and a new Labor Market Participation benchmark replaces the former Employment benchmark.

Within Wages, Labor Force, and Value-Added, we report on progress toward the goals of Maine's 10-Year Economic Strategy.

A comprehensive, user-friendly, digital edition of this report is now available online for desktop, tablet and mobile devices. Visit [www.mdf.org/economic-policy-research/measures-of-growth-report](http://www.mdf.org/economic-policy-research/measures-of-growth-report)

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\* Maine Department of Labor, Center for Workforce Research and Information, Recession Index, accessed October 6, 2021.

Achieving our vision requires a vibrant and sustainable economy supported by vital communities and a healthy environment.



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## SUPPORTING MAINE'S ECONOMIC STRATEGIC GOALS

Maine has a promising economic recovery plan<sup>1</sup> that builds on its existing ten-year economic development strategy.<sup>2</sup> These multi-pronged and potentially deeply impactful roadmaps can guide Maine toward recovery and sustainable, equitable growth for all residents. The state's strategy aims to achieve three goals by 2030.

### GOAL 1: Increase wages by 10%

This goal would increase the value of Maine's annual average wage, adjusted for inflation, from \$45,370 in 2018 to \$49,900 by 2030. In 2020, wages reached and exceeded this goal, rising fully 11% above 2018 levels to \$50,407. Normally, this would be cause for celebration, but it largely reflects the temporary, disproportionate loss of low-wage jobs due to COVID. Stay-at-home measures and social distancing caused losses of high-contact, low-wage jobs, even as employment in middle- and high-wage jobs grew slightly. The Wages metric on page 8 shows how this growth compares to other states.

### GOAL 2: Increase the value of what we sell per worker by 10%

Goal 2 seeks to increase value-added per Maine worker from \$88,804 in 2017 to \$97,684 by 2030 (adjusted for inflation). In 2020, value-added reached \$95,933, an increase of 8% compared to 2017. Again, this is welcome growth, but it largely reflects the steep loss of low-wage jobs caused by COVID. For more information, and to see how Maine fared compared to other states, see the Value-Added metric on page 15.

### GOAL 3: Attract 75,000 people to Maine's talent pool

The final goal aims to increase Maine's labor force by 75,000 above previous projections for 2030, which showed a 65,000 decline. The result would be a net gain of 10,000 workers, or about 700,000 workers total. COVID dealt a blow to this goal, as many people stopped working or looking for work during the pandemic. Over the course of 2020, Maine's labor force contracted by 20,000. Fortunately, there are strong signs of recovery in 2021 as more and more people return to work. See the Labor Force metric on page 13 for more details.

<sup>1</sup> State of Maine, Governor's Economic Recovery Committee, "Recommendations to Sustain and Grow Maine's Economy," November 24, 2020.

<sup>2</sup> State of Maine, "Maine Economic Development Strategy 2020-2029," November 2019.

# FUNDAMENTAL PERFORMANCE INDICATORS

## 1 - Wages

+10%

Maine's annual average wage will exceed the average of EPSCoR\* states by 2030

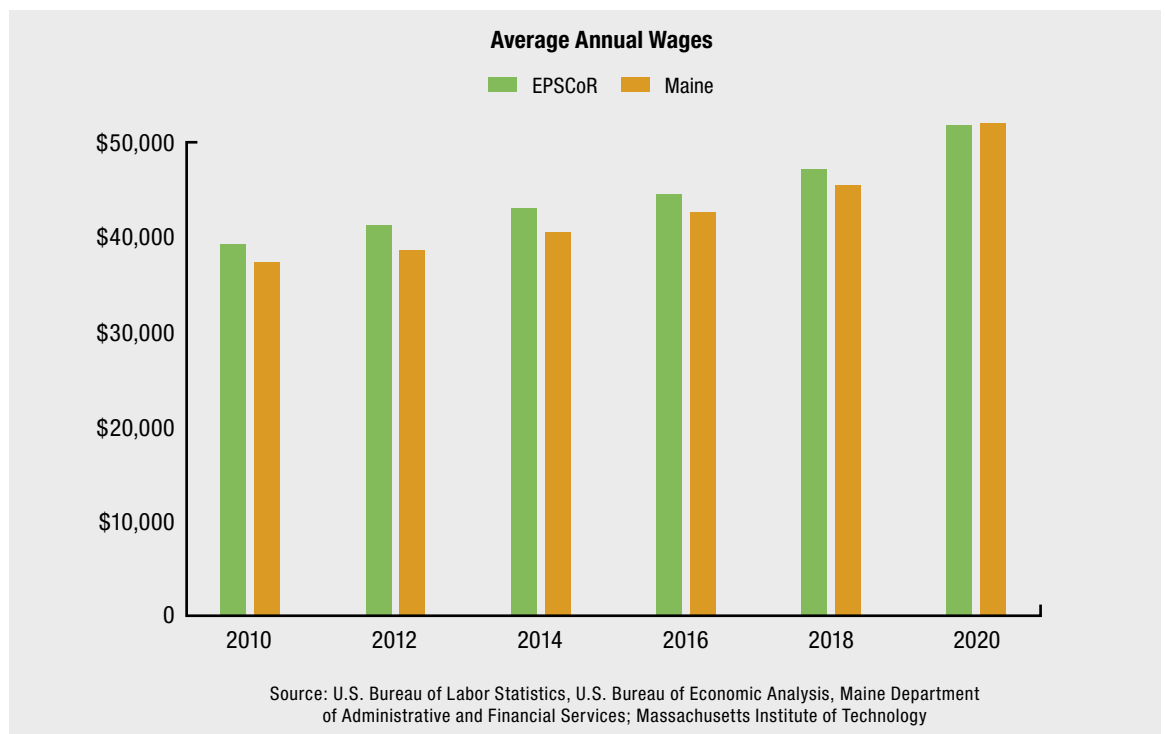
Wages reflect job quality, worker productivity, and the makeup of our economy; they are a primary driver of economic prosperity and quality of life.

In 2020, Maine's average annual wage was \$51,935—below the U.S. average of \$64,000 but above the average for EPSCoR\* states (\$51,779). From 2019 to 2020, average wages grew a remarkable 10%, reaching and exceeding the goal of Maine's 10-Year Economic Strategy. Normally, this would be cause for celebration. However, it likely reflects the disproportionate, and temporary, loss of low-wage jobs due to COVID.

The adequacy of wages to cover workers' basic needs varies by household and region. In 2020, the estimated living wage for a single Mainer was \$31,034; it was \$79,726 for a single person with two children; and for two working adults with two children, it was \$43,971 per adult. Regionally, wages exceed the state average in Cumberland, York, and Sagadahoc counties, and trail it elsewhere, with rural Franklin and Piscataquis counties having the lowest wages.

### Average Annual Wages By County, 2020

	County	Average Wage
Coastal Counties	Cumberland	\$60,253
	Sagadahoc	\$51,822
	York	\$51,697
	Waldo	\$45,883
	Knox	\$45,253
	Hancock	\$44,705
Central Counties	Lincoln	\$42,027
	Kennebec	\$49,231
	Androscoggin	\$48,366
	Penobscot	\$48,053
Rim Counties	Somerset	\$45,003
	Aroostook	\$43,257
	Oxford	\$43,067
	Washington	\$42,007
	Piscataquis	\$40,447
	Franklin	\$40,344



\* EPSCoR is the National Science Foundation's Established Program to Stimulate Competitive Research, a program to assist places with historically low levels of funding for research and development. There are 25 states in the program: Alabama, Alaska, Arkansas, Delaware, Hawaii, Idaho, Iowa, Kansas, Kentucky, Louisiana, Maine, Mississippi, Montana, Nebraska, Nevada, New Hampshire, New Mexico, North Dakota, Oklahoma, Rhode Island, South Carolina, South Dakota, Vermont, West Virginia, and Wyoming.

## 2 - Poverty

-1%

Maine's poverty rate will decline and remain below the U.S. rate through 2030

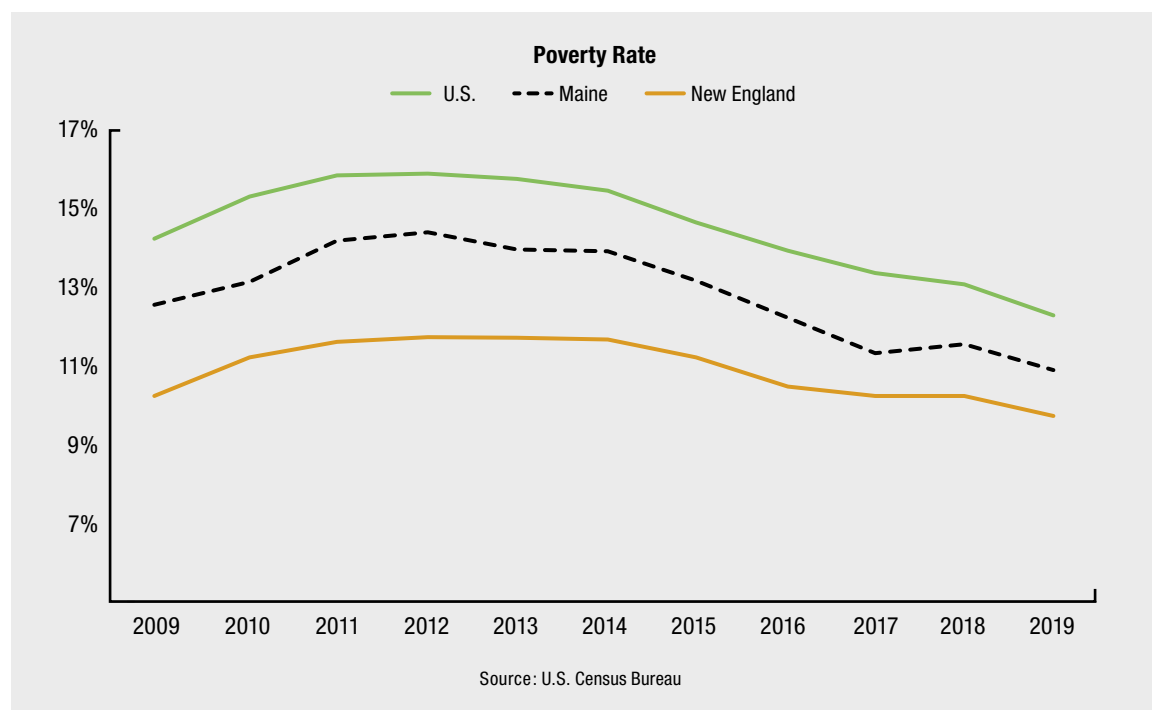
The poverty rate reflects both Maine's economic performance and the experience of individual residents. COVID likely had far-reaching ripple effects on vulnerable households, but official poverty rates for 2020 are not yet available.

Prior to the pandemic, poverty in Maine was declining—from 11.6% of residents in 2018 to 10.9% in 2019. In 2019, poverty rates ranged from 8% in Cumberland County to 20% in Washington County.

Overall poverty rates mask stark differences among certain populations. In 2019 BIPOC and Latino or Hispanic Mainers were twice as likely to be living in poverty; and 17% of Maine children under age 5 were living in poverty, compared to 8% of Mainers over age 65. Many poor children are in households headed by single females. From 2015 to 2019, 1 in 3 single-mother households were poor (33%), and more than 2 in 5 mothers with children under age 5 were living in poverty (43%).

### Poverty Rate By County, 2019

	County	Poverty Rate
Coastal Counties	Cumberland	7.8%
	Sagadahoc	8.6%
	York	7.9%
	Knox	10.9%
	Lincoln	11.0%
	Waldo	10.6%
	Hancock	13.7%
Central Counties	Kennebec	11.5%
	Androscoggin	10.4%
	Penobscot	12.4%
Rim Counties	Franklin	12.6%
	Aroostook	15.5%
	Somerset	18.3%
	Oxford	13.0%
	Piscataquis	16.5%
	Washington	19.6%



### 3 - Gender Income Equity

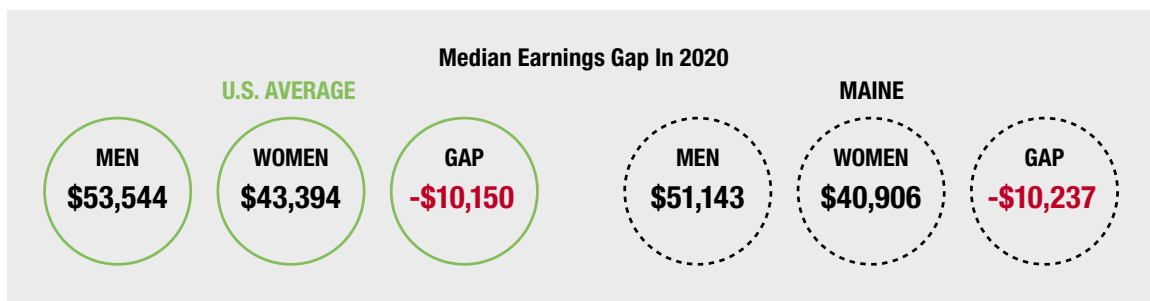
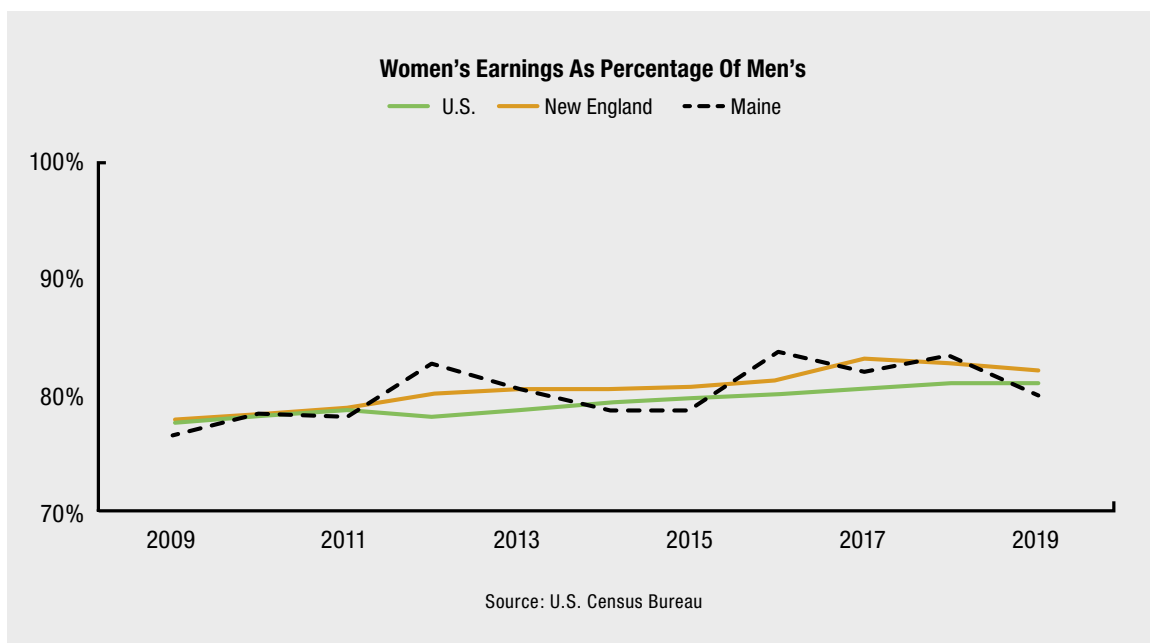
-4%

Maine's median annual earnings for women will improve to 100% of men's median annual earnings by 2030

This measure compares the annual wages of men and women working full-time, year-round. In 2019, the median earnings of Maine females was \$40,906—80% of the \$51,143 median earnings of Maine males. In other words, for every \$5 earned by Maine men, Maine women earned \$4, even though they were all working full-time. Some of the difference is due to the differing wages in occupations disproportionately filled by women, but this does not explain the entire wage gap. In recent years, women's earnings as a percentage of men's in Maine was improving, from 79% in 2014-2015

to 82-84% in 2016-2018, but in 2019 it dipped. The same happened elsewhere in New England, although the U.S. gender wage gap continued to shrink.

In 2019, Maine's gender income gap was close to the U.S. average. No U.S. state has eliminated the gender pay gap yet, but in six states, women's earnings are 85% or more of men's earnings. Vermont has the lowest gender wage gap. There, women earned 91% as much as men in 2019.





## 4 - Racial/Ethnic Income Equity

+2%

The average per-capita income of Mainers of color will improve to the state average by 2030

The Council strongly believes that Maine will need the contributions of every resident to achieve a vibrant, sustainable economy. Increasing prosperity is not true progress unless it is equitably shared. This will require broad, deep, and long-term systemic change.

From 2015 to 2019, the average per-capita income of BIPOC and Latino or Hispanic Maine residents (7% of the population) was \$21,007. That is 63% of the \$33,487 average for white, non-Hispanic Maine residents (93% of the state's population). This is a small increase from 61% in 2014-2018, but for every \$3 made by white households, all other racial and ethnic groups made \$2.

This stark racial/ethnic income disparity is similar to that of New England and the United States. To counter it, Maine must improve access to training and education for residents of color, better support their communities and businesses, and address cultural biases and systemic disadvantages. No U.S. state has eliminated the racial income gap yet, but in West Virginia and Vermont, households of color earn over 70% as much as white households.

### Maine Poverty Rate by Race/Ethnicity 2015-2019

Race/Ethnicity	Population	Poverty Rate
White, not Hispanic or Latino	1,213,537	11%
Two or more races	27,815	22%
Hispanic or Latino (of any race)	20,768	19%
Black or African American	17,066	35%
Asian	14,008	13%
American Indian & Alaska Native	8,414	29%
Other	3,338	13%
Native Hawaiian & Pacific Islanders	396	27%

### Average Per-Capita Income, 2015-2019



Source: U.S. Census Bureau

## 5 - Labor Force



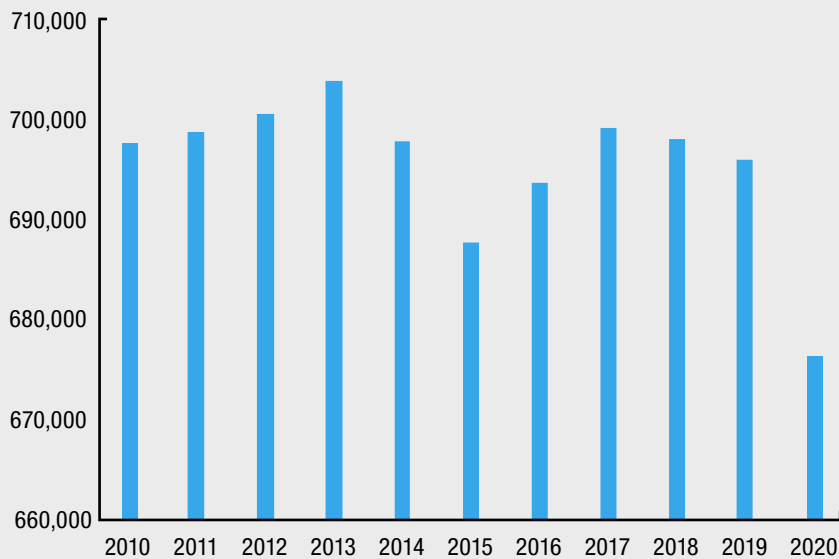
Maine's labor force will increase to 700,000 by 2030

A skilled and educated labor force is essential for a healthy economy. As baby boomers retire, the ranks of working-age Mainers are smaller. Furthermore, many young people are delaying entering the labor force to pursue education and training opportunities. This has contributed to a slow decline in Maine's labor force, equal to several hundred workers annually since 2010. The number is tiny compared to the 675,000 people in Maine's labor force in 2020, but it signals a disturbing trend.

In 2020, COVID dealt another blow to Maine's workforce as it shrank by nearly 20,000. In 2021, there are signs of a rebound, albeit slow. The Council supports the goal of Maine's 10-Year Economic Strategy, which calls for the labor force to increase to about 700,000 by 2030.

To continue growing Maine's workforce, and counter these trends, Maine must attract more working-age people from other states and countries, retain more of the young people born here, and help more Mainers participate in the workforce.

Maine's Labor Force



Source: U.S. Bureau of Labor Statistics, U.S. Census Bureau

## 6 - Labor Force Participation

-2%

Maine's labor force participation rate will match or exceed the national average

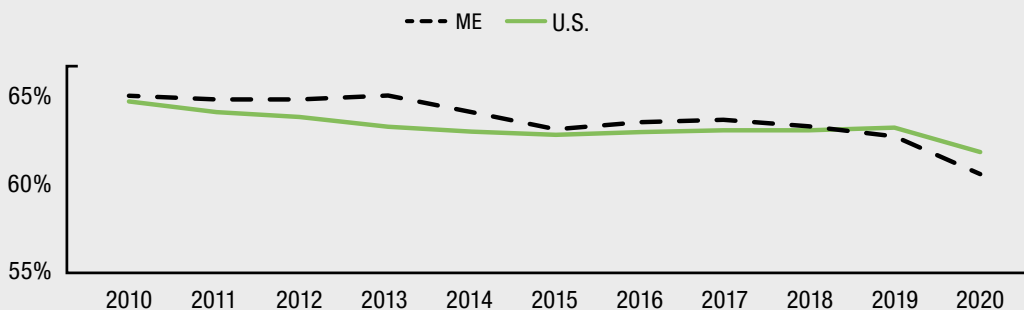
As Maine's population ages, and our labor force shrinks, the economic contribution of every individual becomes more apparent. The labor force participation rate is the percentage of Maine's civilian population over age 15 that is either working or looking for work. It hovered around 63% from 2015 to 2019, but fell to 60.5% in 2020 due to COVID.

Public health measures temporarily closed some businesses, and remote work/learning left many families scrambling for childcare. Many individuals stopped working or looking for work. Federal stimulus

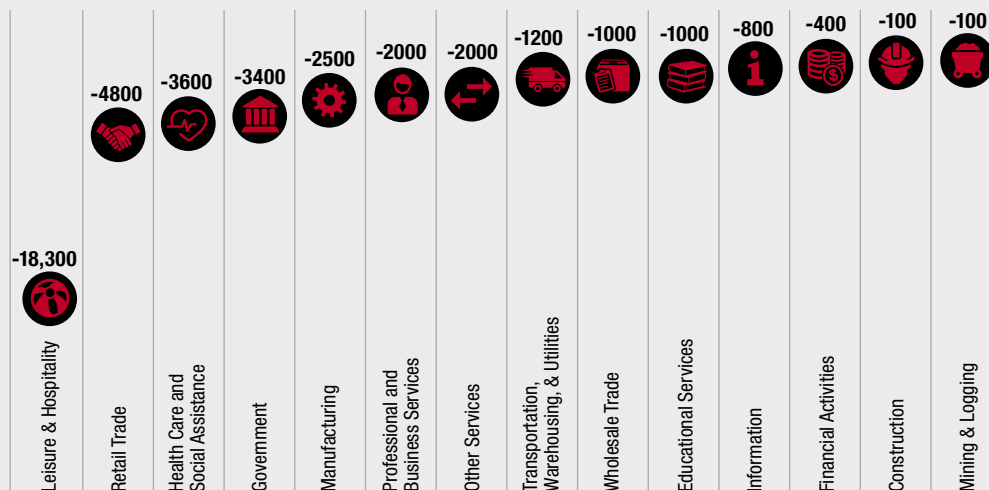
measures allowed many to avoid the risk of working in offices or public spaces during a pandemic. Average annual employment fell 41,000 (6% of the statewide total). All sectors experienced job losses. The worst-hit sectors were leisure and hospitality, retail trade, and health care and social assistance.

Potential measures to increase Maine's labor force participation rate include higher wages, increased childcare access, reduced schedules for older workers, and outreach to new Mainers and people with disabilities, veterans, disengaged youth, and others.

LABOR FORCE PARTICIPATION RATE



Employment Losses in Maine By Selected Sectors, 2019-2020



Source: U.S. Bureau of Labor Statistics

## 7 - Value-Added

+2%

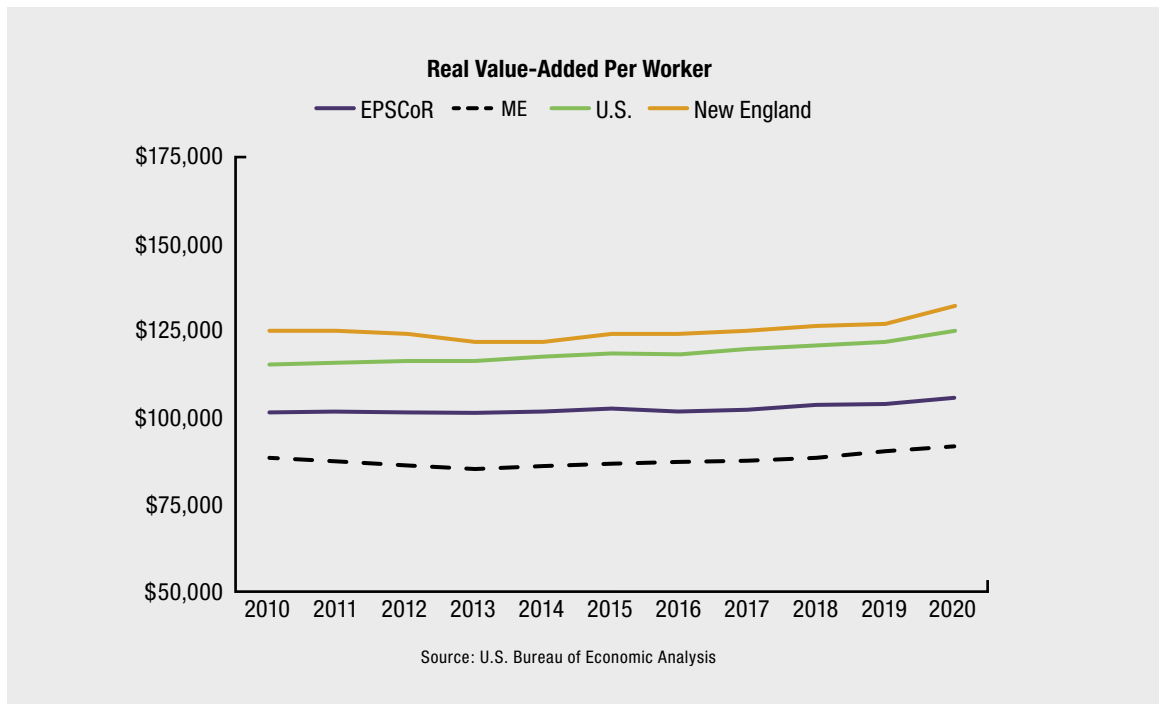
Maine's value-added per worker will improve to within 15% of the U.S. average by 2030

This indicator measures the productivity of workers by dividing gross domestic product by the total number of part- and full-time workers. Maine has a relatively high share of part-time workers, which lowers our value-added per worker. Productivity also reflects skill levels, business costs, and the major industries in a region's economy.

Worker productivity in Maine has steadily increased but ranked 48th among the 50 states in 2020. Adjusted for inflation, value-added rose 2% to \$101,379 per worker. This exceeded the average growth of EPSCoR\*

states but trailed the U.S. and New England. These figures may be distorted by the loss of low-wage jobs in 2020 due to COVID. Still, Maine remains about 25% behind the national average.

Both the Council and the State's 10-Year Economic Strategy draw attention to the importance of increasing value-added to grow Maine's economy and boost wages. The Council seeks for Maine to be within 15% of the U.S. average by 2030, while the State strives for 10% absolute growth.



\* EPSCoR is the National Science Foundation's Established Program to Stimulate Competitive Research, a program to assist places with historically low levels of funding for research and development. There are 25 states in the program: Alabama, Alaska, Arkansas, Delaware, Hawaii, Idaho, Iowa, Kansas, Kentucky, Louisiana, Maine, Mississippi, Montana, Nebraska, Nevada, New Hampshire, New Mexico, North Dakota, Oklahoma, Rhode Island, South Carolina, South Dakota, Vermont, West Virginia, and Wyoming.

## 8 - Gross Domestic Product

-4%

The growth of Maine's GDP will outpace that of New England and the U.S.

Gross domestic product (GDP) provides a sense of Maine's overall economic performance. It reflects the market value of all goods and services produced in the state and some nonmarket goods and services provided by government agencies and nonprofit institutions.

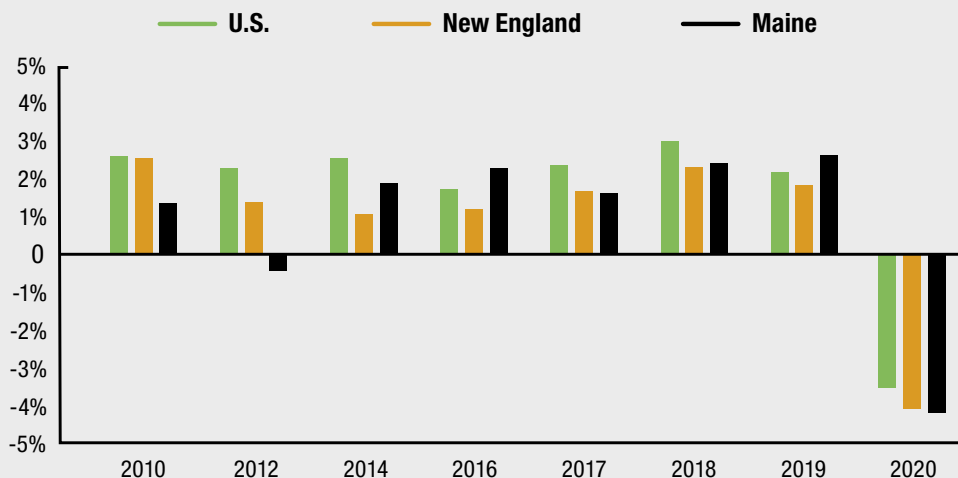
Adjusted for inflation, Maine's GDP fell 4.1% in 2020, similar to the 3.5%-4.0% declines in the U.S. and New England. In fact, every state's economy contracted due to the impact of measures to prevent the spread of COVID. Maine's GDP loss ranked 16th of the U.S. states, and was lower than losses in Vermont, New Hampshire, and Rhode Island.

Arts, entertainment, and recreation was one of the hardest hit Maine industries, shrinking 40% in 2020 (adjusted for inflation), along with accommodation and food services (-25%), and transportation and warehousing (-14%). Industries that grew during 2020 include utilities and construction. Real estate, government, health care and social assistance, and professional and business services together made up over one-half of Maine's GDP in 2020.

### Maine's Gross Domestic Product By Major Industry Sector 2020

Industry Sector	GDP Millions of Dollars	% of Total	% Change 2019-20
Real Estate	\$9,935	15%	2%
Government	\$9,083	14%	0%
Health Care & Social Assistance	\$7,768	12%	-3%
Professional & Business Services	\$7,282	11%	-1%
Manufacturing	\$6,235	9%	-3%
Retail Trade	\$5,504	8%	3%
Finance and Insurance	\$4,387	7%	2%
Wholesale Trade	\$3,610	5%	-2%
Construction	\$2,620	4%	5%
Accommodation & Food Services	\$2,428	4%	-22%

### Real Gross Domestic Product Growth Rate



Source: U.S. Bureau of Economic Analysis



# ECONOMY

IN KEEPING WITH THE  
ENTREPRENEURIAL SPIRIT





## 9 - Research and Development

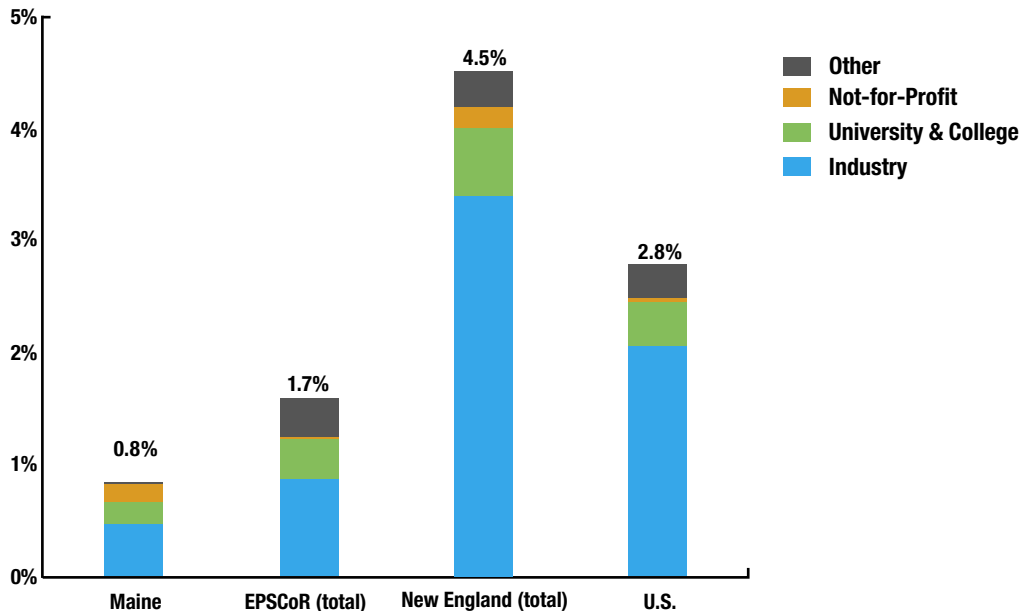


0%

Maine trails badly in R&D investment



### TOTAL PERCENT OF GDP TOWARD R&D BY MAJOR PERFORMANCE SECTOR, 2018



**Benchmark:** Maine's research and development spending as a proportion of the economy will reach the U.S. average by 2030.

**Source:** Camoin Associates, National Science Foundation, U.S. Bureau of Economic Analysis, University of Maine

Research and development (R&D) spending is an indicator of the level of innovation in an economy, an important driver of economic growth. In 2018, Maine's total R&D spending was \$527 million, up slightly from \$520 million in 2017.

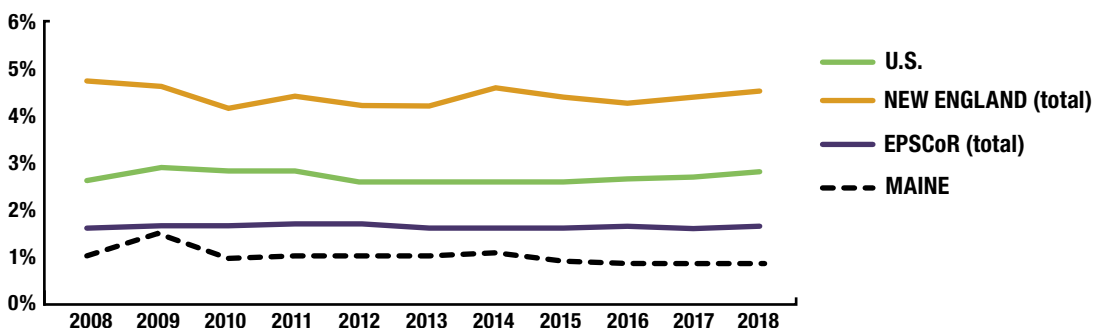
R&D spending in Maine represents 0.8% of total gross domestic product (GDP), compared to 2.8% nationwide. This ranks us 43rd of the 50 states and is about one-half of the estimated 1.7% average among EPSCoR states. Maine lags other states in private sector

and university R&D investments relative to GDP, while our non-profit sector contributes a relatively higher proportion of spending.

Maine's lack of an R1\* research university contributes to this situation. To address this, the University of Maine System Board of Trustees recently prioritized the expansion of R&D across the system. In 2020, the University of Maine's R&D expenditures reached \$165.1 million, a record high. These gains may improve Maine's overall R&D ranking in future years.

\*"R1" refers to doctoral universities with "very high research activity," as defined by the Carnegie Classification of Institutions of Higher Education.

### TOTAL R&D SPENDING AS A PERCENT OF GROSS DOMESTIC PRODUCT





## 10 - International Exports

-14%

Both Maine and U.S. exports dropped in 2020

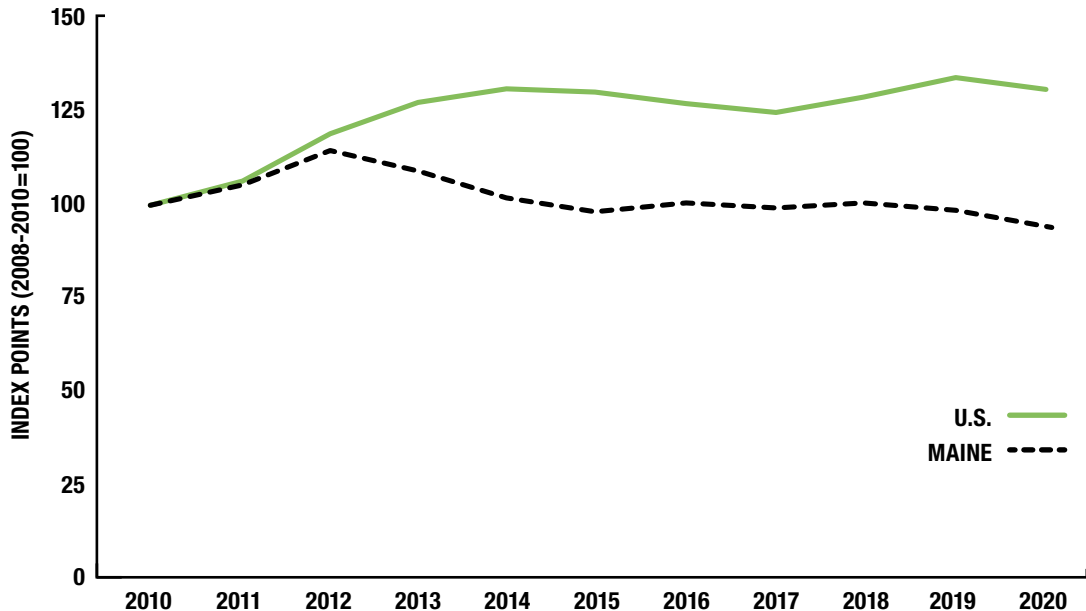
### Benchmark:

Maine's international exports will grow at a pace faster than U.S. international exports.

### Source:

Maine International Trade Center, Camoin Associates

### INTERNATIONAL EXPORTS (Rolling 3-year Average)



Sales to customers in other states and countries provide valuable opportunities for Maine businesses. According to one estimate, exports account for about 4% of Maine businesses' total sales. International sales made in Maine, such as those to foreign tourists and students, provide equivalent injections into the state's economy, although they are not tracked.

In 2020, the global pandemic reduced trade worldwide. Exports fell 13% across the U.S. and 14% in Maine. The decline hit nearly every sector, with the exceptions in Maine

being pharmaceuticals and petroleum products (most of which pass through Maine en route to other markets).

Among Maine's top traded products, sales of seafood, paper, industrial machinery, wood and wood pulp all declined at least 10%. Seafood exports fell 25%, mainly reflecting a drop in sales to Canada. Lobster exports to China actually increased in 2020 following a trade deal with that country. Canada remained Maine's leading trade partner, with \$1.2 billion in exports, followed by China, Malaysia, the Netherlands, and Japan.



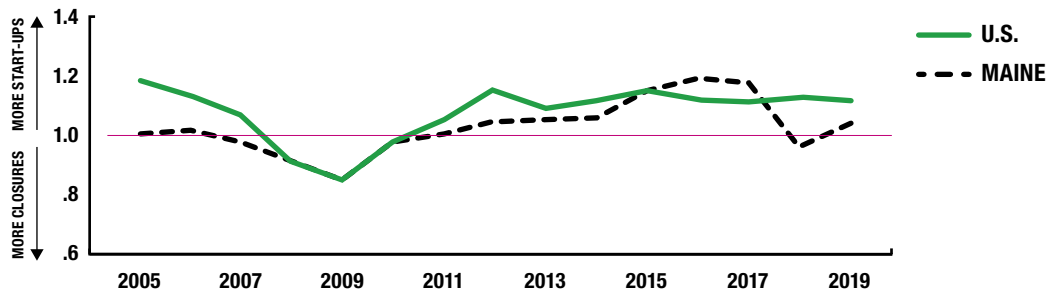
## 11 - Entrepreneurship

+4%

New business starts have exceeded closures for most of the past decade



### RATIO OF BUSINESS START-UPS TO CLOSURES



**Benchmark:**  
Maine's ratio of business start-ups to closures will be positive and equal to or above the national average.

**Source:**  
U.S. Bureau of Labor Statistics

The creation of new businesses is a vital economic activity. Entrepreneurship contributes to innovation, creates jobs, and builds wealth. In a vibrant economy, people have the skills to identify and respond to business opportunities, access to capital, supports for starting and scaling businesses, and connections to human capital.

This entrepreneurship metric, simpler and more focused than in prior years, compares the number of business establishments that are started in Maine each year with the number that close. It includes any establishment with employees covered by unemployment insurance.

Business closures are a part of the “creative destruction” inherent to free market economies and sometimes reflect the personal choices of business owners who retire or move. Business start-ups offset closures and are critical for economic growth. A start-up-to-closure ratio greater than 1 means more businesses are being created than closed each year.

In 2019, Maine's ratio of start-ups to closures was 1.04, meaning 4% more businesses were created (12,831) than closed (12,548). The U.S. ratio was 1.12.



## 12 - Prekindergarten Education



+2%

Investments in early childhood development are vital to Maine's future success

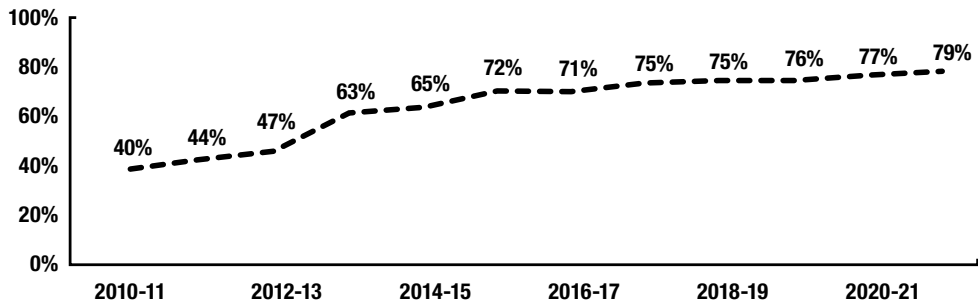
### Benchmark:

100% of Maine school districts will offer public pre-K for 4-year-olds by 2025.

### Sources:

Maine Department of Education

### MAINE PUBLIC SCHOOL DISTRICTS OFFERING PRE-K PROGRAMS



High-quality, affordable child care is critical to Maine's economic development. It prepares young Mainers for success in school and supports their parents' full participation in the workforce, a fact highlighted by the COVID pandemic. While data on high-quality early child care and education are limited before age three, all indications are that Maine needs to invest more to improve access.

The proportion of Maine school districts offering public pre-K has increased threefold over the past decade. This reflects investments that have extended state

funding to support the creation of these programs. In 2020-21, 79% of districts offered pre-K. The Growth Council supports the Maine Children's Cabinet's goal of all districts offering these programs by 2025.

According to the U.S. Census Bureau, 50% of Maine four-year-olds were enrolled in public pre-K in 2019-20, well above the U.S. average of 34% and the New England average of 27%. Continued improvement in this measure is likely to have a positive impact on student academic proficiency in later grades.

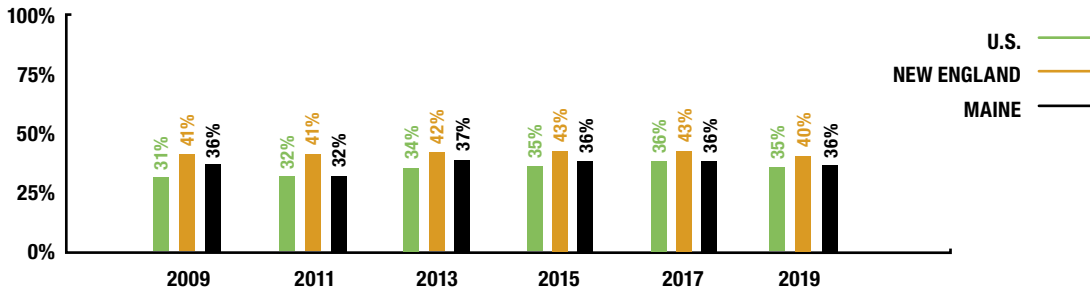
## 13 - Fourth-Grade Reading

0%

Early school performance is stable but would do well to improve



### PERCENTAGE OF 4<sup>th</sup> GRADERS SCORING PROFICIENT OR ABOVE



**Benchmark:**  
The percentage of Maine students scoring proficient and above on NAEP will reach 50% by 2030.

**Source:**  
National Center for Education Statistics, National Assessment of Educational Progress (NAEP); New England average is unweighted

Fourth-grade reading scores are an indicator of future outcomes like educational attainment, employment, and earnings. Fourth-grade reading proficiency is defined as solid academic performance and competency over challenging subject matter, application to real-world problems, and appropriate analytical skills. The National Assessment of Educational Progress (NAEP) tests representative samples of fourth and eighth graders every other year to allow national and state comparisons.

The proportion of Maine fourth graders meeting NAEP's proficiency benchmark in reading has not improved over the past decade. In 2019, 36% of Maine fourth graders were proficient in reading, the same proportion as in 2015 and 2017. Maine fourth-grade reading performance is one percentage point above the national average and trails the New England average by four points.

### 4<sup>th</sup> GRADERS SCORING PROFICIENT OR ABOVE IN 2019

U.S.

35%



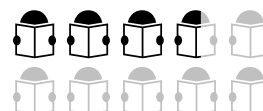
NEW ENGLAND

40%



MAINE

36%





## 14 - Eighth-Grade Math

-2%

Performance improvements are needed to help Maine students and economy

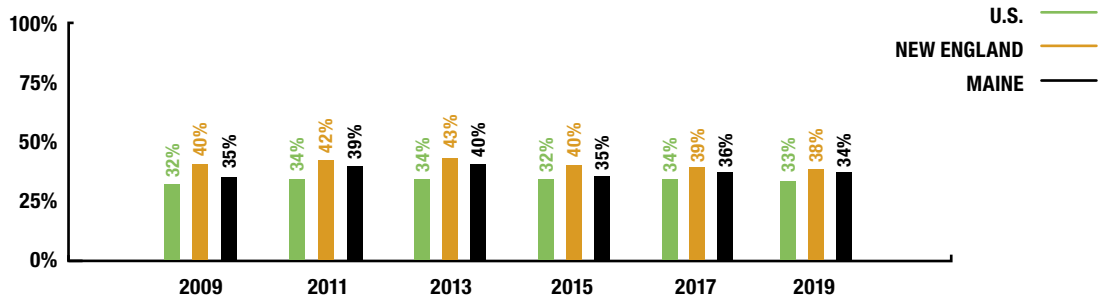
### Benchmark:

The percentage of Maine students scoring proficient and above on NAEP will reach 50% by 2030.

### Source:

National Center for Education Statistics, National Assessment of Educational Progress (NAEP); New England average is unweighted

### PERCENTAGE OF 8<sup>th</sup> GRADERS SCORING PROFICIENT OR ABOVE



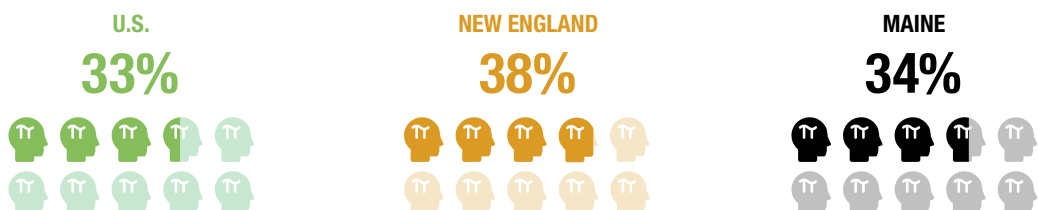
Eighth-grade math scores reflect foundational skills and indicate whether students are on track for college and career readiness. Math is a cornerstone of the STEM (science, technology, engineering, and math) disciplines, career fields and job skills that are growing and pay well. Math addresses knowledge and skills to solve problems, make sense of information, and accurately gather and evaluate evidence to make decisions.

Eighth-grade math proficiency is defined as solid academic performance and competency over challenging subject matter, application to real-world problems, and

appropriate analytical skills. The National Assessment of Educational Progress (NAEP) tests representative samples of fourth and eighth graders every other year to allow national and state comparisons.

The proportion of Maine eighth graders meeting the NAEP math proficiency benchmark increased from 34% in 2007 to 40% in 2013 but has since fallen back to 34% in 2019. Maine eighth-grade math proficiency was one percentage point above the national average of 33% but trailed the New England rate of 38% by four points.

### 8<sup>th</sup> GRADERS SCORING PROFICIENT OR ABOVE IN 2019



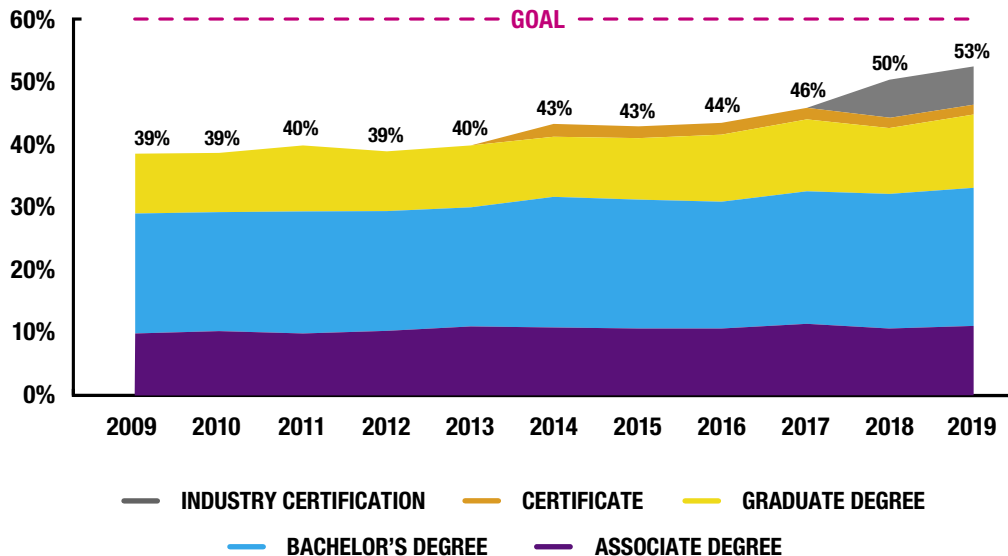
## 15 - Postsecondary Degrees and Credentials

+2%

Improving postsecondary educational attainment is a top priority



### POSTSECONDARY ATTAINMENT OF MAINE ADULTS



**Benchmark:**  
By 2025, 60% of Maine adults will have a degree or non-degree credential of value.

**Source:**  
Lumina Foundation (Estimates of the percentage of people with short-term certificates begin in 2014. Estimates of industry-recognized certifications begin in 2018.)

This year, the Council adopted a postsecondary goal that includes non-degree credentials of value. These certificates and certifications offer valuable pathways to opportunity in today's economy. This new benchmark aligns with Maine's statutory goal of 60% of adults ages 25-64 holding a degree or a non-degree credential of value by 2025 – a goal promoted by MaineSpark, a coalition of education institutions, nonprofits, foundations, government agencies, and businesses.

The Council recognizes the growing importance of non-degree career paths, including professional

certifications, licenses, digital badges, and military service. The Lumina Foundation reports that in 2019, 7.8% of Maine adults ages 25-64 who lacked postsecondary degrees held occupational credentials. That is above the New England average of 6.4% and just below the national average of 8.1%.

In all, an estimated 52.6% of Maine adults ages 25-64 held an associate, bachelor's, graduate, or professional degree, or a non-degree credential of value in 2019. This is up from 50.5% in 2018.

#### Adult Ages 25-64 Degree Attainment Rates, 2019

	Associate Degree	Bachelor's Degree	Graduate or Professional Degree	Credential or Certificate	Total
Maine	11.1%	22.2%	11.5%	7.8%	52.6%
New England	8.3%	25.2%	18.0%	6.4%	58.0%
United States	9.2%	21.8%	12.7%	8.1%	51.9%

Source: Lumina Foundation



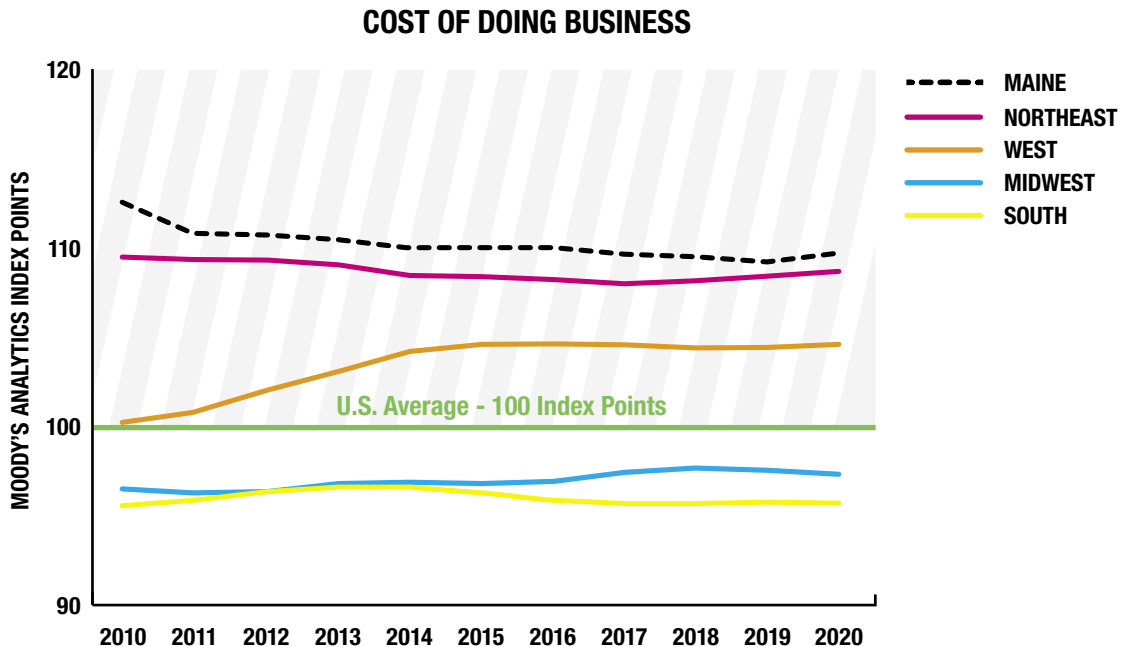
## 16 - Cost of Doing Business

0%

Business costs remain above national and regional averages

**Benchmark:**  
Maine's cost of business will decline to the U.S. average by 2030.

**Source:**  
Moody's Analytics



Moody's Analytics' cost of doing business index is a weighted scale of labor costs (wages, benefits, and productivity), commercial and industrial electricity costs, and state and local tax burden. A value of 100 equals the U.S. average.

Maine's cost of doing business index value was 115 in 2008-2009 and has been stable at about 110 since 2014. In 2020, Maine's cost of doing business ranked 9th highest in the U.S., but second lowest of the New England states. In the U.S., the Northeast has higher business costs than other regions of the country, and Maine's cost of doing business has been consistently above the Northeast average for the past decade.

### 2020 New England State Ranks: Business Costs (1 is highest cost)

	Overall	Labor	Energy	Tax Burden
MA	2	3	4	21
VT	3	13	8	3
NH	8	15	7	48
RI	7	18	3	8
ME	9	11	10	5
CT	11	39	5	4

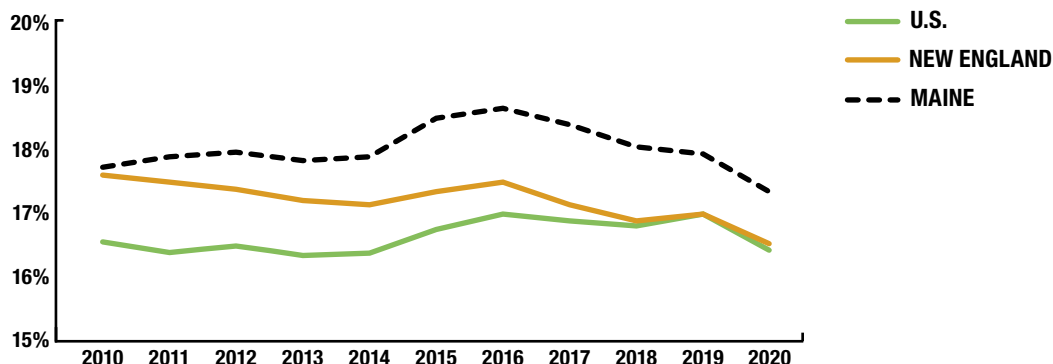
## 17 - Cost of Health Care

-0.7%

Above-average health care costs are a continuing challenge for Maine



### HEALTH CARE EXPENDITURES AS PERCENTAGE OF TOTAL PERSONAL EXPENDITURES



**Benchmark:** Maine's health care spending as a percentage of total personal expenditures will decline to the New England average by 2030.

**Source:** U.S. Bureau of Economic Analysis, U.S. Department of Health and Human Services

Our measure of health care costs tracks the percentage of total personal expenditures that are devoted to health care. Maine people and businesses consistently identify the high cost of health care as a major concern.

In 2020, health care spending in Maine stood at 17.3% of all personal expenditures, down from its peak of 18.7% in 2016. While health care expenditures in Maine are higher than the U.S. and New England rates, they are trending downward. They fell sharply in 2020, largely due to the

decline of noncritical services during COVID. Still, in Maine and across the nation, about 1 in 6 dollars generated in the economy goes to medical expenses.

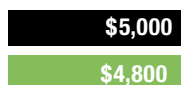
In 2019, the median contribution for family health insurance coverage of a Maine employee was \$5,000. By this measure, Maine ranked 16th highest of the 50 states. For employers, the median contribution was \$16,000—6th highest.

### MEDIAN CONTRIBUTION FOR FAMILY COVERAGE, 2019

#### EMPLOYER



#### EMPLOYEE





## 18 - Cost of Energy

-0.3¢

High electricity prices are a hinderance for some Maine industries

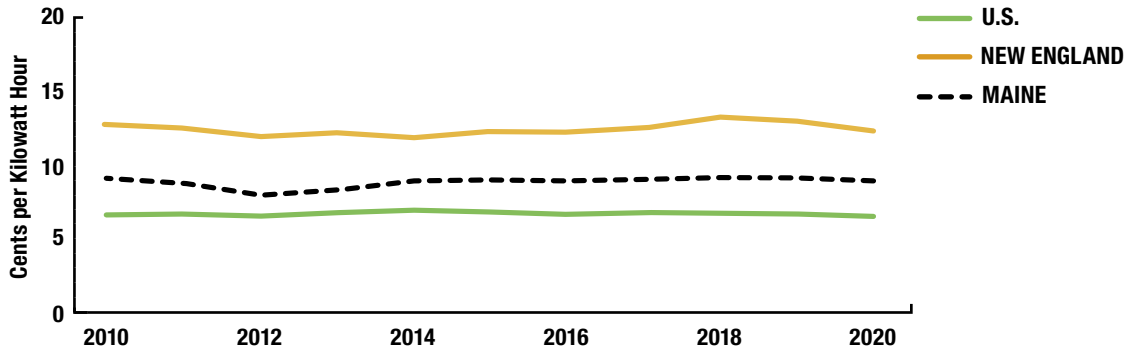
### Benchmark:

The cost of electricity in Maine will decline to the U.S. average by 2030.

### Source:

U.S. Energy Information Administration

### INDUSTRIAL RETAIL ELECTRICITY PRICE



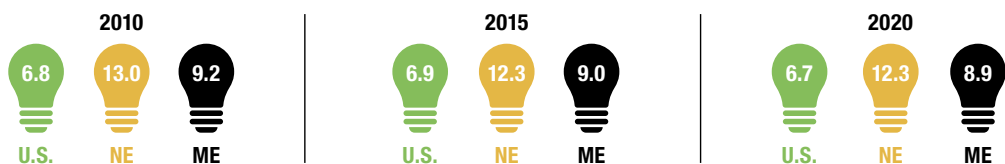
Electricity is a significant cost for many businesses, especially those in energy-intensive industries such as manufacturing. The energy intensity of Maine's economy is about average for the U.S. (ranking 22nd of the 50 states in 2019) but the highest in New England.

The average industrial retail price of electricity in Maine decreased for a second year in a row, falling from 9.22 to 8.92 cents per kilowatt hour from 2019 to 2020, while the average New England price declined

from 13.07 to 12.26 cents and the U.S. average fell from 6.81 to 6.66 cents. Industrial electricity in Maine now costs 37% less than the New England average and about 34% more than the national average.

New renewable energy sources could help reduce costs and lower emissions, but they require increased investment in Maine's strained transmission system. A coordinated transmission anticipation process could help address this issue.

### INDUSTRIAL RETAIL ELECTRICITY PRICE TREND (cents/kWh)





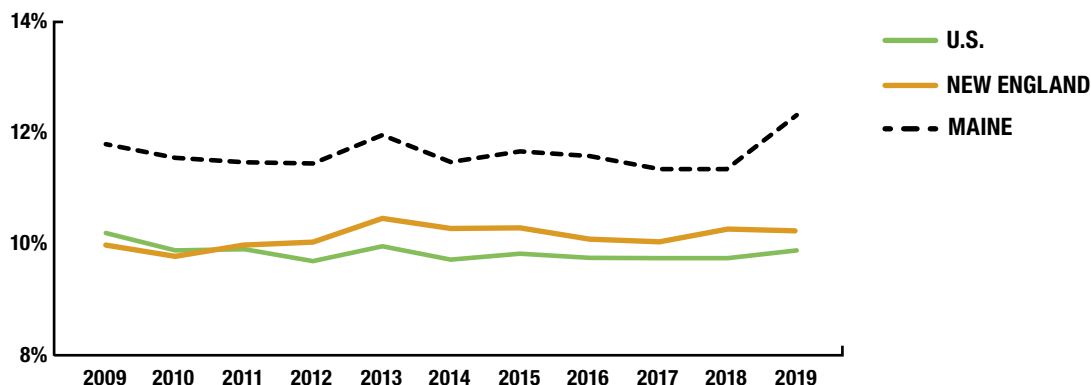
## 19 - State and Local Tax Burden

0.9%

Maine's tax burden remains above the U.S. and New England averages



### STATE AND LOCAL TAXES AS A PERCENT OF INCOME



**Benchmark:**  
Maine's tax burden will decline and move toward the New England average each year through 2030.

**Source:**  
U.S. Census Bureau and U.S. Bureau of Economic Analysis

The percentage of total personal income paid in state and local taxes (property, sales, income, corporate, motor vehicle, and other taxes) is our tax burden measure. While taxes impose costs on individuals and businesses, they generate revenue for public services and investments. This measure compares tax levels and ability to pay; it can be reduced by lowering tax rates and by increasing income.

State and local tax burden in Maine appeared to increase from 11.4% in 2018 to 12.3% in 2019. However, this change should be interpreted cautiously, as it is driven by a Census Bureau estimate of property tax collections increasing 22% in 2019. Furthermore, this figure does not account for the percentage of sales and property taxes paid by out-of-state visitors and second-home owners. The New England average was 10.3% in 2019. Maine ranks 4th highest of the 50 states in state and local taxes as a percentage of income. Maine ranks 12th highest among the states in tax collections per capita.

#### State and Local Tax Burden Rank 2019 (1 is highest)

	% of Income	Rank	Per Capita	Rank
U.S.	10.0%	N/A	\$5,666	N/A
NE	10.3%	N/A	\$6,652	N/A
<b>ME</b>	<b>12.3%</b>	<b>4</b>	<b>\$6,249</b>	<b>12</b>
VT	12.1%	5	\$6,710	10
RI	10.8%	11	\$6,111	13
CT	10.7%	12	\$8,308	3
MA	9.9%	22	\$7,342	6
NH	8.2%	46	\$5,191	25

#### STATE AND LOCAL TAXES AS A PERCENT OF INCOME IN 2019

NEW ENGLAND

10.3%



MAINE

12.3%





# COMMUNITY

LIVING, WORKING AND MOVING  
FORWARD, TOGETHER



## 20 - Broadband Connectivity

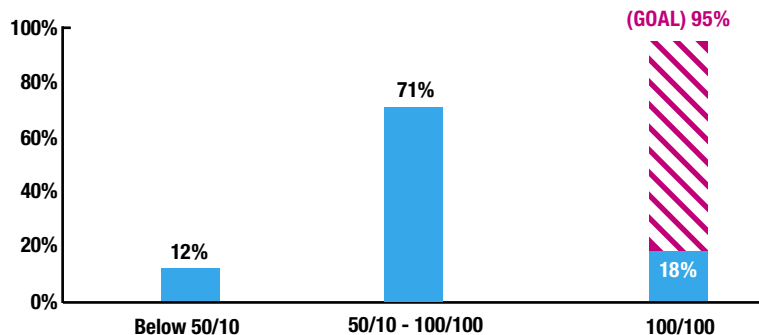


Broadband in Maine has improved, but speed, reliability, and affordability need to improve



### PERCENTAGE OF MAINE LOCATIONS WITH INTERNET ACCESS BY SPEED OF INTERNET

Internet Speed (Mbps upload speed / Mbps download speed)



**Benchmark:**  
95% of Maine homes and businesses will have access to high-speed internet by 2025.

**Source:**  
ConnectMaine Authority

High-speed internet is vital to participation in the global economy and modern society, and is critical for communities seeking to attract and retain businesses and residents. COVID reinforced this in stark terms. Having reliable, fast internet became essential for professionals and students working and learning from home, often at the same time.

The ConnectME authority defines sufficient “high-speed” internet as 100 Mbps download and 100 Mbps upload (“100/100”). The Council endorses ConnectME’s goal of 95% of Maine locations (homes, apartments, and businesses) having access to 100/100 by 2025.

According to the most recent data, just 18% of Maine locations have access to 100/100. Seventy-one percent have access to speeds of 50/10 or better but less than 100/100, and 12% can only access internet below 50/10.

Access varies greatly across Maine. Over 40% of locations in Lincoln, Knox, Piscataquis, and Waldo counties have access to 100/100, compared to less than 10% in Cumberland, Franklin, Androscoggin, and Kennebec.

### High-Speed Internet Service by County (100 Mbps download/100 Mbps upload)

Coastal Counties	% of locations
Lincoln	53%
Knox	48%
Waldo	40%
Hancock	22%
Sagadahoc	21%
York	13%
Cumberland	9%
Central Counties	
Penobscot	18%
Androscoggin	4%
Kennebec	3%
Rim Counties	
Piscataquis	42%
Aroostook	28%
Oxford	23%
Washington	17%
Somerset	11%
Franklin	6%



## 21 - Transportation

+1%

Significant improvement is needed to meet Maine's transportation needs

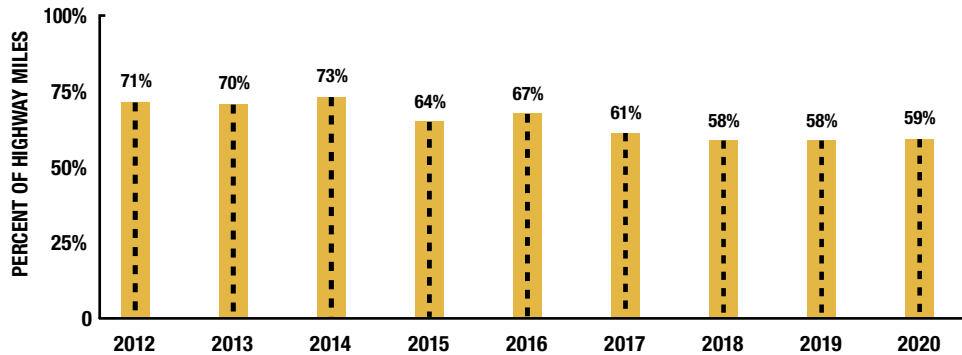
### Benchmark:

At least 85% of highway corridor Priority 1 miles will be rated Excellent, Good, or Fair.

### Source:

Maine Department of Transportation

### HIGHWAY MILES RATED EXCELLENT, GOOD, OR FAIR



Maine's transportation network connects us to each other and to the world. Together, roads, rails, airports, and seaports can support an integrated transportation system that promotes economic activity by getting goods and people to their destinations efficiently and affordably. Public transportation is a critical component of this system, allowing people to access employment and services without a car, and reducing congestion and pollution.

Our roadways carry the vast majority of passengers and freight. Poor road conditions can lead to personal

injury, property damage, and extended commute times. The Maine Department of Transportation grades roadways from A (excellent) to F (unacceptable). This measure shows grades for the most-traveled and economically significant ("Priority 1") roadways.

In 2020, 819 miles (59%) of Priority 1 highways were graded A, B or C, and 579 miles (41%) received grades of D or F. This shows slight (1%) improvement from 2019, but the proportion of Maine highways receiving top grades is still far below 2012 levels.

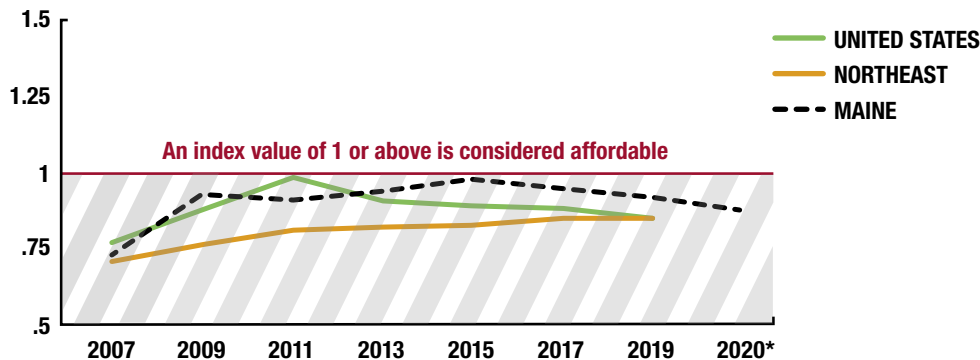
## 22 - Housing Affordability



Maine's better-than-average housing affordability has declined since 2015



### HOUSING AFFORDABILITY INDEX



**Benchmark:** Maine's housing affordability index will reach and maintain a level around 1.0 through 2030.

**Source:** MaineHousing (\*2020 U.S. and Northeast data not available)

Housing is a significant portion of household budgets, and housing costs reflect everything from the supply of housing stock, to public policies regarding planning and new construction, to lending practices and interest rates. Regions with affordable housing are better able to attract and retain workers. Affordable housing also has broad positive impacts on health and childhood development, which benefit individuals and communities alike.

The housing affordability index compares rental and homeownership costs with median incomes, weighting for the proportions of owner and renter households. A rating of 1.0 or higher indicates affordability.

Housing is more affordable in Maine than elsewhere in the United States or the Northeast, but after improving from 2007 to 2015, housing affordability in Maine has declined. Preliminary data suggest it dipped further in 2020, likely due to rising rents and home prices. In 2020, homeownership costs met or exceeded the affordability threshold in just six of Maine's 16 counties, and only one county (Franklin) had affordable rental housing.

### Housing Affordability Index 2020

(an index value of 1.0 or higher is considered affordable)

	County	Homeownership	Rental
Coastal Counties	Lincoln	.77	.78
	Cumberland	.81	.68
	Hancock	.85	.58
	Knox	.85	.77
	York	.86	.61
	Waldo	.92	.70
Central Counties	Sagadahoc	.94	.93
	Androscoggin	.94	.84
	Kennebec	1.08	.80
	Penobscot	1.10	.76
Rim Counties	Oxford	.97	.75
	Franklin	.98	1.00
	Washington	1.04	.99
	Somerset	1.13	.73
	Piscataquis	1.27	.83
	Aroostook	1.54	.84
	<b>Maine</b>	<b>.91</b>	<b>.83</b>



## 23 - Safety

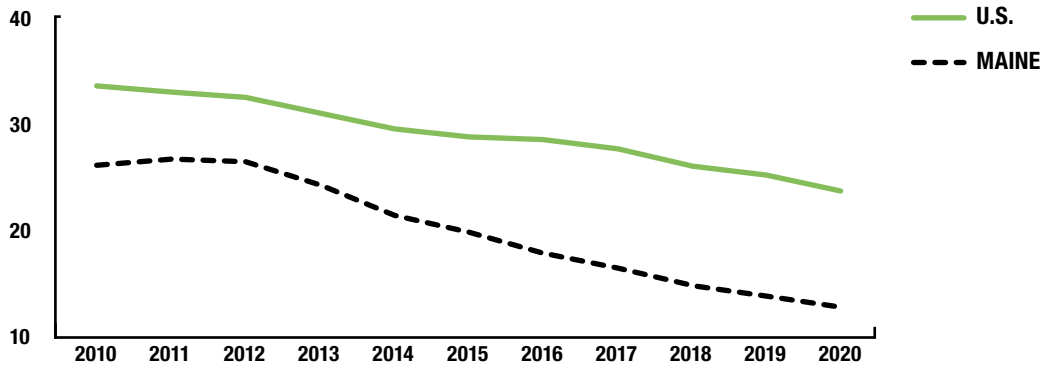


Maine's reported crime rate is among the lowest in the country

**Benchmark:**  
Maine's crime rate will remain 33% or more below the U.S. rate through 2030.

**Source:**  
Federal Bureau of Investigation

### REPORTED CRIMES PER 1,000 PEOPLE



Crime rates are our measure of physical safety, an important aspect of quality of life. Crime is costly to communities because it depresses property values, discourages investment, and increases insurance premiums. The crime rate includes data on larceny, burglary, aggravated assault, motor vehicle theft, rape, robbery, arson, and murder.

Maine's crime rate in 2020, 12.6 per 1,000 residents, was 46% below the national rate of 23.6 and the second lowest of the 50 states. This is likely due in part to the age of Maine's population, since criminal offenses decline with age. Property crime in Maine has dropped 53% since 2010, compared to a 34% decline nationwide, while violent crime dropped 11% in Maine and 1% in the U.S.



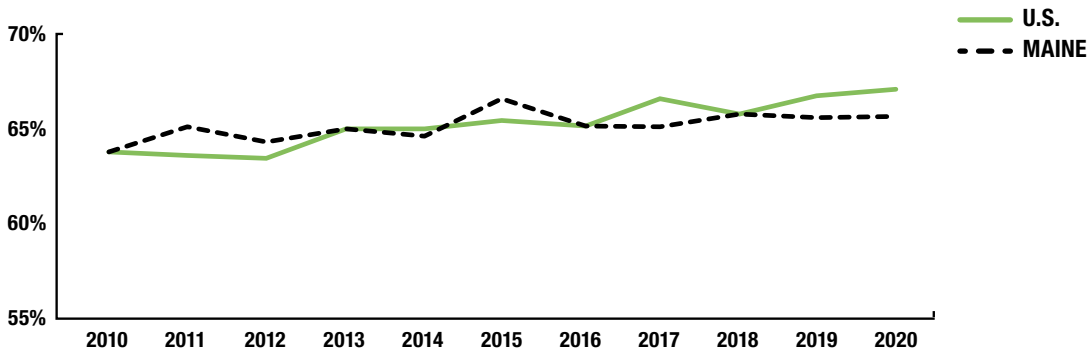
## 24 - Wellness and Prevention

0%

Maine's overweight and obesity rates are rising with the U.S. average



### PERCENTAGE OF OVERWEIGHT AND OBESE ADULTS



**Benchmark:**  
The combined percentage of overweight and obese adults in Maine will decline to 50% by 2030.

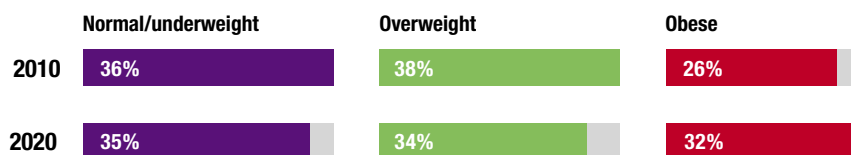
**Source:**  
U.S. Centers for Disease Control and Prevention, Center for Child and Adolescent Health Measurement Initiative

This indicator measures the proportion of adults who are overweight or obese. Excess body weight increases the risk of chronic diseases like diabetes, heart disease, stroke, asthma, arthritis, and some cancers. These conditions negatively affect quality of life and workplace productivity, and increase medical expenses. In 2020, 2 out of 3 Maine adults (66%) were overweight (body mass index of 25 to 29.9) or obese (body mass index of 30 or greater), about equal to the national average. Maine's rate has steadily risen, up from 56% in 2000.

In 2018-2019, about 1 in 4 Maine youth ages 10-17 (25%) is overweight or obese. While this is below the national rate of 31%, childhood obesity is a serious, widespread problem that can cause long-term health challenges.

*\*The Council recognizes that this metric captures only one physical aspect of well-being. Research is underway on how best to concisely benchmark social/emotional well-being and its connection to economic opportunity and quality of life.*

### COMPARING MAINE ADULT BODY MASS INDEX





## 25 - Health Insurance Coverage

0%

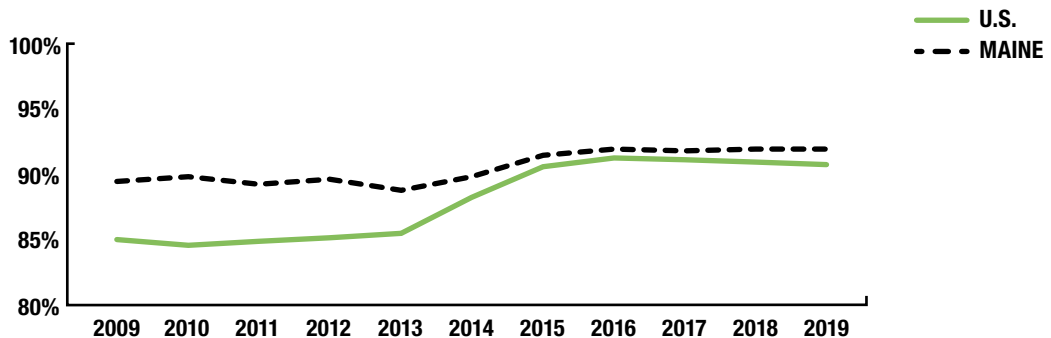
Maine's health insurance coverage is stable and above the U.S. average

### Benchmark:

The percentage of Maine's population with health insurance coverage will rise and remain above the U.S. rate.

Source:  
U.S. Census  
Bureau

### POPULATION WITH HEALTH INSURANCE COVERAGE



This measure tracks the proportion of the population with health insurance coverage. Higher health insurance coverage rates improve access to health care services, support local health care systems, and boost families' ability to pay for necessities.

The proportion of Maine residents with health insurance coverage has remained constant at about 92% since 2015. In 2019, this placed Maine one percentage point higher than the national average of 91%. An estimated 107,000 people in Maine do not have health insurance coverage. By county, health insurance coverage rates for people under age 65 range from 83.8% in Washington County to 92.2% in Cumberland County.

The Census Bureau's Small Area Health Insurance Estimates offer data on racial differences in health insurance coverage in Maine, although it only includes three categories: White alone, Black alone, and Hispanic (any race). In 2019, 90% of White Mainers under age 65 had health insurance coverage, compared with 88% of Black Mainers and only 79% of Hispanic Mainers.

### Population with Health Insurance Coverage, 2019

	County	Rate
Coastal Counties	Cumberland	92.2%
	York	91.4%
	Sagadahoc	91.1%
	Waldo	88.6%
	Hancock	88.6%
	Knox	88.5%
Central Counties	Lincoln	86.4%
	Androscoggin	90.3%
	Kennebec	89.5%
	Penobscot	88.3%
Rim Counties	Oxford	88.6%
	Franklin	87.9%
	Somerset	87.9%
	Piscataquis	87.3%
	Aroostook	87.3%
	Washington	83.8%



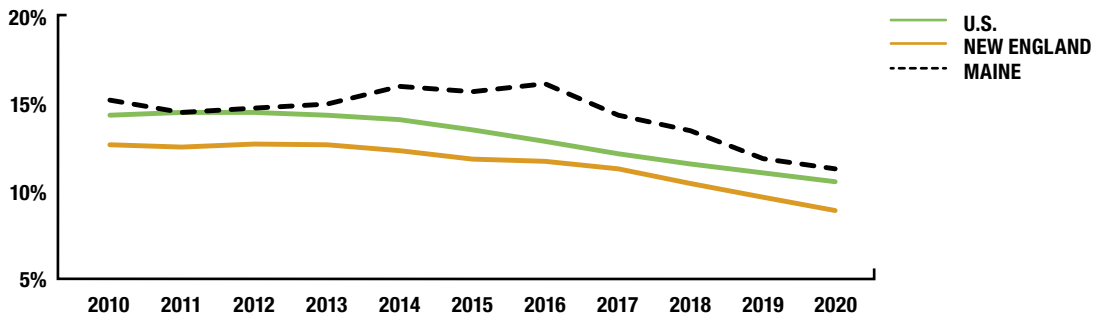
## 26 - Food Security

-0.6%

Access to healthy food remains below U.S. and New England averages



### FOOD-INSECURE HOUSEHOLDS (3-YEAR AVERAGE)



**Benchmark:** Maine's percentage of food-insecure households will decline to the U.S. average by 2030.

**Source:** U.S. Department of Agriculture, Feeding America

Food insecurity has broad negative impacts on health, child development, education outcomes, and productivity. Food-insecure households have disrupted eating patterns, reduced food intake, and reduced quality or variety of diet.

About 1 in 9 Maine households (11.4%) was food insecure in 2018-2020, down from 12.0% in 2017-2019 but above the national average of 1 in 10 and the New England unweighted average of 1 in 11. According to Feeding America, 2019 food insecurity ranged from 10% in Cumberland, Sagadahoc, and York counties to 17% in Piscataquis and Somerset.

Food insecurity usually rises during economic downturns. During the Great Recession, the percentage of food insecure U.S. households grew from 11.1% in 2007 to 14.6% in 2008. However, according to the U.S. Department of Agriculture, the percentage of food-insecure households nationwide was unchanged in 2020. Federal stimulus payments, unemployment benefits, and changes to nutrition assistance programs may have helped some households pay grocery bills. However, food insecurity in households with children rose from 6.5% to 7.6%.

### Food Insecurity Rate 2019

	County	Rate
Coastal Counties	Cumberland	10.1%
	Sagadahoc	10.2%
	York	10.3%
	Knox	11.0%
	Hancock	11.8%
	Lincoln	12.2%
Central Counties	Waldo	12.7%
	Androscoggin	12.8%
	Kennebec	12.9%
	Penobscot	13.9%
Rim Counties	Franklin	11.8%
	Oxford	13.6%
	Aroostook	16.0%
	Washington	16.5%
	Piscataquis	16.9%
	Somerset	17.0%
	<b>MAINE</b>	<b>12.4%</b>



# ENVIRONMENT

BY LAND, LAKE,  
SEA AND STREAM



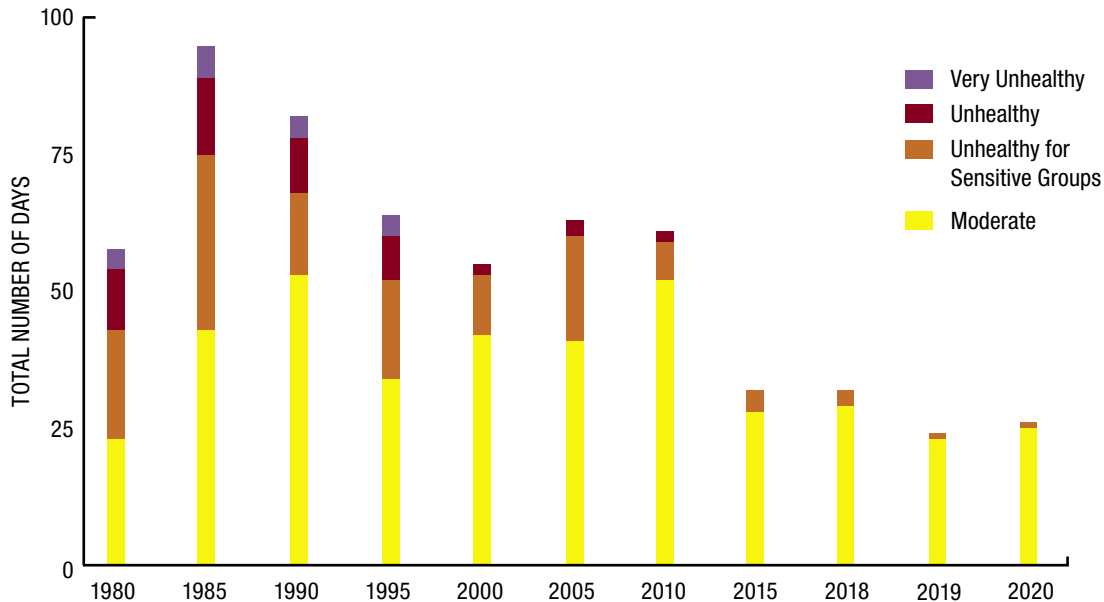
## 27 - Air Quality

+2  
DAYS

Unhealthy air days in Maine remain low compared to past decades



### MAINE AIR QUALITY INDEX



**Benchmark:**  
The overall number of days classified as a health risk and the severity of risks will be maintained through 2030.

**Source:**  
Maine Department of Environmental Protection

The State of Maine's air quality index is based on ozone levels in parts per billion and tracks the number of days each year when the maximum ozone level recorded in Maine reaches moderate or unhealthy levels. Maine's air quality contributes to health and wellness, and makes it an attractive place to live, do business, and visit. Air quality is subject to factors both within and beyond our borders.

In 2020, there were 25 moderate air quality days, and 1 day rated unhealthy for sensitive groups. After declining in the 1980s and 1990s, air quality in Maine has improved substantially, and is better than other Northeastern states.



## 28 - Water Quality



0%

Maine's water quality far exceeds the national average

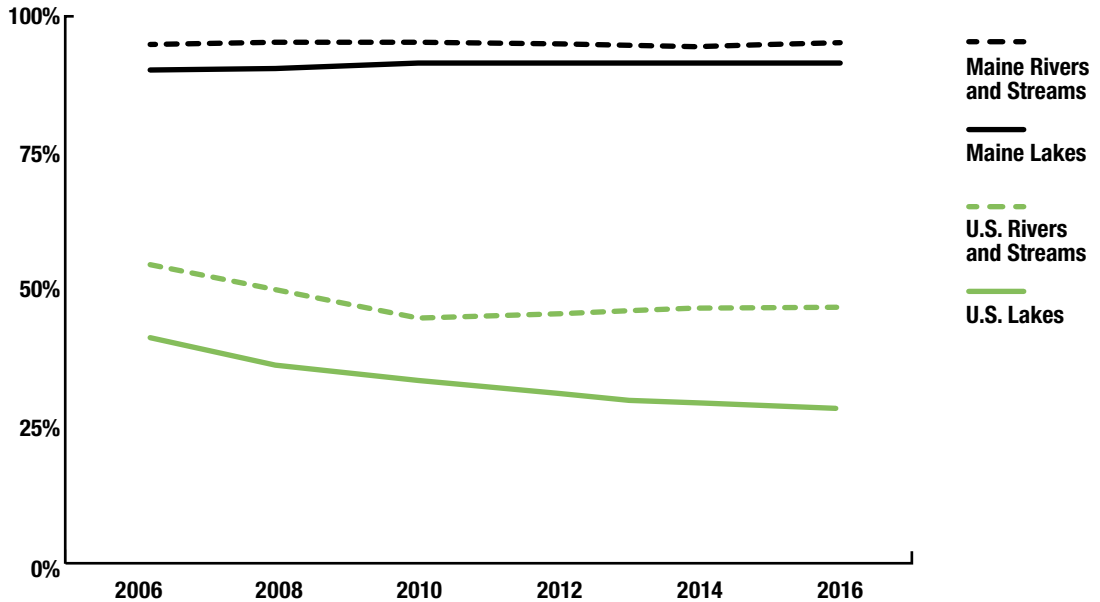
### Benchmark:

The percentage of Maine's assessed water bodies classified as Categories 1 or 2 will be maintained over time.

### Source:

Maine Department of Environmental Protection

### WATER BODIES RATED CATEGORY 1 OR 2 (GOOD)



This measure is based on reports by the Maine Department of Environmental Protection (MDEP) and U.S. Environmental Protection Agency (EPA) on the water quality of Maine rivers, streams, and lakes. The proportion of water bodies achieving Maine's Category 1 and 2 classifications are compared with U.S. water bodies receiving the EPA's "good" classification. Maine's rivers, lakes, and streams provide drinking water and support ecosystems. They are part of the natural environment that supports tourism.

Since 2006, Maine's water quality has remained steady, with 95% of rivers and streams and 91% of lakes achieving Category 1 or 2 in 2016. Nationally, about 47% of U.S. rivers and streams and 29% of the lakes were rated "good." MDEP expects to release 2018 and 2020 data for this measure in 2022.

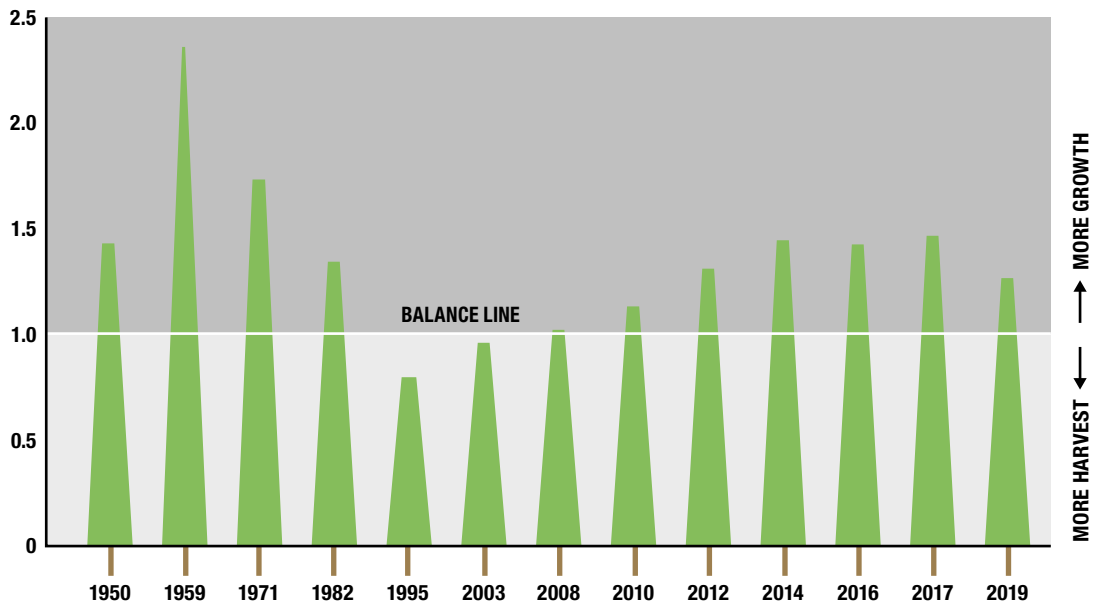
## 29 - Sustainable Forest Lands

-8%

Maine's growth-to-harvest ratio is stable



### TIMBERLAND GROWTH-TO-REMOVAL RATIO



**Benchmark:**  
A net growth-to-removal ratio of approximately 1:1 will be maintained over time.

**Source:**  
Maine Department of Agriculture, Conservation, and Forestry.

The sustainable management of Maine's forests is measured by the growth-to-harvest ratio. A net growth value above one means growth exceeds harvest, and a value below one means harvest exceeds growth. Forests cover nearly 90% of Maine's land area. Private landowners manage 94% of forested acreage, with much of it accessible to the public. Forests provide habitat for wildlife, help protect air and water quality, offer recreational opportunities, and supply

raw materials for products ranging from paper to alternative fuels. Sustainable forestry supports Maine's economy, environment, and quality of life.

Since 2010, Maine has maintained net forest growth-to-removal ratios slightly in favor of growth over harvest. The growth-to-harvest ratio fell slightly from 1.38 in 2018 to 1.27 in 2019.



## 30 - Greenhouse Gas Emissions

-5%

Maine is meeting its statutory goal to reduce greenhouse gas emissions

**Benchmark:**  
Greenhouse gas emissions will fall 45% below 1990 levels by 2030.

**Source:**  
National Council of State Legislatures, Maine Department of Environmental Protection

### MAINE GREENHOUSE GAS EMISSIONS



In 2003, Maine became the first U.S. state to enact a statutory target for greenhouse gas (GHG) emissions, which it met when emissions fell to 10% below 1990 levels in 2012. In 2019, further legislation set the goal of reducing emissions 45% below 1990 levels by 2030 and 80% by 2050. Emissions are calculated biennially by the Maine Department of Environmental Protection (DEP) based on computer models developed by the U.S. Environmental Protection Agency.

From 2016 to 2017, GHG emissions fell nearly 5%, from 18.4 to 17.5 million metric tons of carbon dioxide. In

2017, emissions were 17.5% below 1990 levels, meaning Maine is continuing to progress toward its 2030 goal.

According to MDEP, about 90% of Maine's emissions are from energy consumption, mostly from the combustion of petroleum products. The other 10% is from agriculture, industrial processes, and waste management. Movement toward renewable energy sources and lower carbon fuels such as natural gas have contributed to reduced emissions.

## BACKGROUND

The Maine Economic Growth Council was established by statute in 1993 to develop, maintain, and evaluate a long-term economic plan for Maine. Its members represent a broad cross-section of Maine's key constituencies. Members are jointly appointed by the Governor, Senate President, and Speaker of the House. The Council is chaired by Steve Von Vogt, President and CEO of Maine Marine Composites. The annual *Measures of Growth* report is a widely used and respected report on Maine's economy. The report is revised from time to time to provide the most current and meaningful assessment of Maine's progress toward long-term economic growth and a high quality of life for all Maine people.

The Council is administered by Maine Development Foundation (MDF), a private, non-partisan membership organization created in statute in 1978 that drives sustainable, long-term economic growth for Maine. The work of the Growth Council is financed by a state appropriation through the Maine Department of Economic and Community Development, with additional support provided by the membership of MDF.

## ACKNOWLEDGEMENTS

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## THE NATURE OF DATA

The Growth Council strives to provide the most accurate, timely, and consistent data available. Some source data are regularly revised as methodologies improve and more information becomes available. As a result, the data presented here may differ slightly from that of past reports. The Council accounts for these limitations in identifying overall trends and policy implications.

## MAINE ECONOMIC GROWTH COUNCIL MEMBERS 2021

(Affiliations as of publication release date except as noted)

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*Founder and President*  
Walton External Affairs

### **Martha Bentley**

*Former Director, Economic  
Development Coordination*  
Maine Dept. Economic and  
Community Development

(Commissioner's designee)  
(Martha left her role in  
October 2021, but contributed  
substantially to the development  
of this report while in her role)

### **PHOTO CREDITS:**

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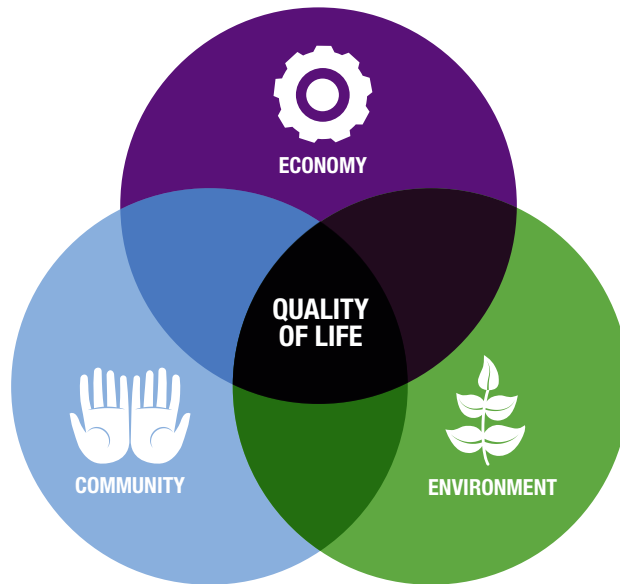


**Online Report available at:**

[www.mdf.org/economic-policy-research/  
measures-of-growth-report](http://www.mdf.org/economic-policy-research/measures-of-growth-report)

# VISION

A HIGH QUALITY OF LIFE  
FOR ALL MAINE PEOPLE



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