







Table of Contents

	FUNDAMENTAL PERFORMANCE INDICATORS			O ECONOMY	
*	PROSPERITY 1. Wages In 2022, wages remained above the EPSCoR* average but fell 1.5% after adjusting for inflation	pg 4 on.	+0.1%	INNOVATION 9. Research & Development In 2020, Maine's R&D spending rose from 1% to 1.1% of GDP.	pg 14
+0.6%	2. Poverty In 2021, poverty rose from 10.6% to 11.2%.	pg 5	+10%	10. International Exports Maine exports rose 10% in 2022, reaching their highest level since 2011.	pg 15
+2%	3. Gender Wage Equity In 2022, women's median wages rose nearly 2% compared to men's, but remained about 84% of men's earnings.	pg 6	+59%	11. Entrepreneurship In 2021, the number of business starts exceeded closures by 71%, up from 12% in 2020.	pg 16
+3%	4. Racial/Ethnic Income Equity In 2017-2021, the average incomes of BIPOC* and Latino or Hispanic Mainers rose 3% but remained 31% below white Mainers, dramatically short of full equity. <i>(*Black, Indigenous, People of Cole</i>		+8%	TALENT 12. Prekindergarten Education In 2022-23, the share of schools with Pre-Ks rose to 85%.	pg 17
-1.5%	PEOPLE 5. Labor Force Maine's labor force shrank 1.5% to 675,000 in 20	pg 8 22.	-7%	13. Fourth-Grade Reading In 2022, 29% of Maine 4th graders were proficien reading, a sharp drop from pre-COVID levels.	pg 18 nt in
-1.8%	6. Labor Force Participation In 2022, 81% of Maine adults ages 25-54 were in the labor force, down from 82.8% in 2021.	pg 10	-10%	14. Eighth-Grade Math In 2022, 24% of Maine 8th graders were proficien in mathematics, down from 34% pre-COVID.	pg 19 nt
0.6%	PRODUCTIVITY 7. Value Added In 2022, value added per worker fell 0.6%,	pg 11	+2%	15. Postsecondary Degrees & Credentials In 2021, 55% of Maine adults had a credential of value, up from 53% in 2019.	pg 21
+2%	and was 22% below the U.S. average. 8. Gross Domestic Product	ng 12	0%	BUSINESS CLIMATE 16. Cost of Doing Business	pg 22
	In 2022, Maine's GDP rose nearly 2%, on pace with other New England states.	pg 12		In 2022, Maine's cost of doing business was unchanged relative to the U.S.	
			-0.7%	17. Cost of Health CareProportional health care expenditures fell0.7% in 2022 but remain an ongoing challenge.	pg 23

* 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.

Online Report available at: www.mdf.org/economic-policy-research/measures-of-growth-report

 (\oplus)

-	18. Cost of Energy	pg 24	🟴 25. Mental & Behavioral Health	pg 33
+17%	The price of industrial electricity rose 17% in 2022, mirroring nationwide increases.	4	In 2020-2021, the percentage of children with a mental and/or behavioral condition rose 0.4%	b .
0%	19. State and Local Tax Burden In 2021, Maine's tax burden remained unchanged at 11.7%.	pg 25	26. Health Insurance Coverage Maine's health insurance coverage is stable and above the U.S. average.	pg 34
	COMMUNITY	•	250 27. Food Security In 2019-2021, the share of Mainers experiencing food insecurity fell about 2 percentage points.	pg 35
	INFRASTRUCTURE	7	•	
+1%	20. Transportation	pg 27	🚖 ENVIRONMENT	
	In 2022, 67% of Maine roadways were rated good or fair.			
23			🚖 28. Air Quality	pg 36
×	21. Internet Connectivity	pg 28 🌔	In 2022, there were 24 moderately unhealthy days, four fewer than last year.	
+8%	In 2023, 86% of Maine locations have either average or broadband internet, up 8%.			
		1.0	🔶 29. Water Quality	pg 37
-	22. Housing Affordability	pg 30	In 2022, Maine maintained its excellent water	
TED	Housing affordability appears to have droppe 2022, but complete data are not currently ava		quality rating.	
		(236) 30. Greenhouse Gas Emissions	pg 38
	HEALTH & SAFETY		From 2018 to 2019, GHG emissions fell 2%.	
-2%	23. Safety	pg 31		
-	Maine's crime rate fell 2% in 2021.	14	🔶 31. Sustainable Forestlands	pg 40
			In 2021, the growth-to-removal ratio rose 8% to 1.43 and remained above the sustainability go	al
+0.4%	24. Physical Wellness	pg 32	- to 1.45 and remained above the sustainability ge	a di ta
-	Consistently, about 2/3 of Maine adults are overweight or obese.	construction (CART)		

Gold Stars and Red Flags are determined by consensus of the Growth Council based on consideration of the data and the experienced perspective of Council members. The general criteria are:

🔶 Exceptional Performance

Very high national standing and/or established trend toward significant improvement.

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. Colored Progress Symbols reflect movement from year to year and/or recent trends toward or away from the benchmarks established by the Council. The general criteria are:

Movement toward the benchmark since the last available data.

No significant movement relative to the benchmark since the last available data, or no new data.

Movement away from the benchmark since the last available data.

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

VISION: A HIGH QUALITY OF LIFE FOR ALL MAINE PEOPLE

The Maine Economic Growth Council is pleased to present Measures of Growth 2023. This nonpartisan, data-driven report shows where Maine sits relative to other states and the U.S. as a whole. It tracks 31 indicators that capture the health of our economy and our communities, revealing both challenges and enduring assets. It is a resource for policy and decision makers at all levels, helping them to focus their efforts and understand the connections between the major issues facing Maine's businesses and citizens.

Maine's Workforce Challenge—Focus on Solutions

Last year, the Council highlighted Maine's "mission critical" workforce challenge. One year later, the urgency remains. Employers are still scrambling to find and keep the talented people they need to succeed and grow. The shortage has a complex mix of causes including the aging of Maine's population, childcare and affordable housing shortages, and a skills gap. Solutions are equally complex.

This year, we offer four stories of creative initiatives that are helping address some of these longstanding challenges. Look for our "Indicator in Action" articles about Nonantum Resort, Telstar Academy, Downeast Broadband Utility, and Nyle Systems.

As we look to the future, envisioning a high quality of life for all Maine people, we know progress will require collaboration, disciplined adherence to a long-term strategy, and a renewed commitment to the systemic change necessary for equitable, sustainable, shared prosperity.

Strength in Community

The Council steadfastly believes that Maine has the potential to build a stronger, better connected, more resilient, and more equitable economy than ever before. We look forward to joining all Mainers to realize this vision.

Report Highlights

Taking stock of Maine's economic progress, the Council sees reasons both for celebration and renewed resolve. For 2023, it assigns Gold Stars for progress in Wages, Post-Secondary Degrees and Credentials, Internet Connectivity, Air and Water Quality, and Sustainable Forestlands, and it assigns Red Flags for needed attention to Labor Force, Research and Development, 4th Grade Reading and 8th Grade Math scores, Cost of Energy, State and Local Tax Burden, Housing Affordability, and Mental Health. Achieving our vision requires a vibrant and sustainable economy supported by vital communities and a healthy environment.



SUPPORTING MAINE'S ECONOMIC STRATEGIC GOALS

Maine has a ten-year economic development strategy to achieve sustainable, equitable growth for all residents.¹ It promotes talent and innovation as drivers of economic opportunity across the state.

The strategy has three goals:

GOAL 1: Increase wages by 10%

STATUS: Wages are up 10%.

This goal seeks to increase the value of Maine's annual average wage, adjusted for inflation, from \$45,370 in 2018 to \$49,907 by 2030. In 2022, wages were nearly there (\$49,870) and would have exceeded the goal if not for high inflation. The Wages metric on page 4 shows how this growth compares to other states.

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

STATUS: Value added is up 12%.

Goal 2 seeks to increase value added per Maine worker from \$88,519 in 2017 to \$97,371 by 2030 (adjusted for inflation). In 2022, value added was \$99,365, an increase of 12% compared to 2017. For more information, see the Value Added metric on page 11.

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

STATUS: Maine gained 39,400 working-age residents but 26,000 people left the workforce, mainly to retire.

In 2019, Maine's labor force was projected to shrink by 65,000 through 2030, mainly due to the aging of the population. This goal aims to attract 75,000 people to Maine's workforce, replacing the 65,000 and adding another 10,000. Since 2018, Maine has gained nearly 39,400 new working-age residents, according to the Maine Department of Economic and Community Development, but about 26,000 people have left Maine's workforce, mainly to retire. See the Labor Force metric on page 8 for more details.

¹ MaineStrategicPlan.com.

FUNDAMENTAL PERFORMANCE INDICATORS

1 - Wages

Benchmark: Maine's annual average wage will exceed the average of EPSCoR states by 2030.

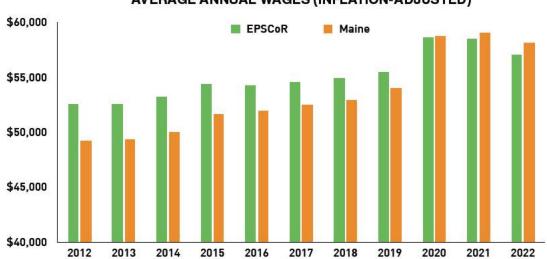
Wages reflect job quality, worker productivity, and the makeup of our economy; they are a primary driver of economic prosperity and quality of life. In 2022, Maine's average annual wage was \$58,132—below the U.S. average of \$69,985 but, for the third year, above the average for EPSCoR* states (\$56,996). This was a 6.4% increase from 2021 and shows employers responding to a tight labor market. However, 8% inflation eclipsed these gains, reducing the average earner's purchasing power by 1.5%. Even adjusting for inflation, wages are now 7.6% above their prepandemic 2019 level, in line with the 8.7% growth of value added over the same period.

The adequacy of wages to cover workers' basic needs varies by household and region. In 2022, the estimated living wage for a single Mainer was \$34,382; it was \$93,579 for a single person with two children; and for two working adults with two children, it was \$102,253. Regionally, wages exceed the state average in Cumberland County, Maine's most populous and urban county, and trail it elsewhere, with rural Franklin and Piscataquis counties having the lowest wages. 1.5%

In 2022, wages remained above the EPSCoR average but fell 1.5% after adjusting for inflation.

Average Annual Wages By County, 2022

County	Average Wage
Cumberland	\$66,608
Sagadahoc	\$57,771
York	\$56,555
Кпох	\$53,617
Waldo	\$50,432
Hancock	\$49,176
Lincoln	\$47,207
Kennebec	\$54,553
Androscoggin	\$53,880
Penobscot	\$51,981
Somerset	\$50,216
Washington	\$47,325
Aroostook	\$46,685
Oxford	\$46,416
Franklin	\$45,394
Piscataquis	\$44,152



AVERAGE ANNUAL WAGES (INFLATION-ADJUSTED)

Sources: U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, Maine Department of Administrative and Financial Services; Massachusetts Institute of Technology

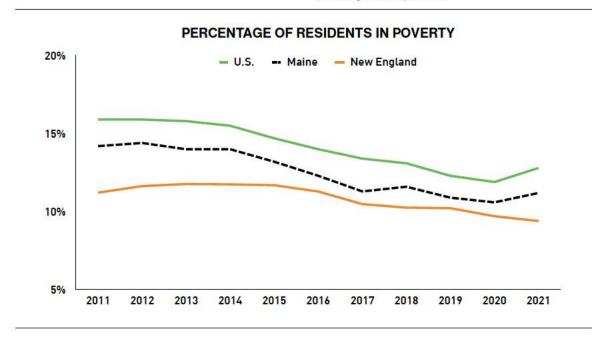
4 Prepared by Maine Development Foundation for the Maine Economic Growth Council, November 2023

2 - Poverty

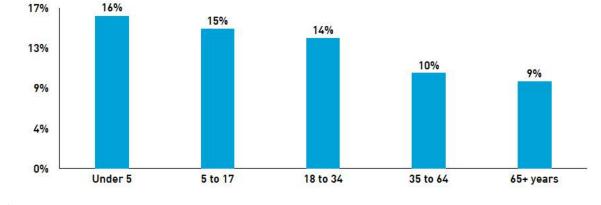
+0.6% In 2021, poverty rose from 10.6% to 11.2%.

Maine's poverty rate reflects both the overall state of the economy and the experiences of individual residents. Federal stimulus measures reduced poverty during the COVID pandemic, but it rose again in 2021. The percentage of Mainers in households with incomes below the poverty level rose to 11.2%, slightly above 2019 pre-pandemic levels. Poverty varied greatly by region—from 7.7% in Cumberland County to 18.2% in Washington County. State-level poverty rates also mask stark differences within Maine's populations. From 2017 to 2021, BIPOC* and Latino or Hispanic Mainers were 70% more likely to be living in poverty; and 16% of Maine children under age 5 were living in poverty, compared to 9% of Mainers over age 65. Many poor children are in households headed by single females. From 2017 to 2021, almost 1 in 3 single-mother households were poor (31%), and almost 2 in 5 single moms with children under age 5 were living in poverty (39%).

*Black, Indigenous, People of Color



POVERTY RATE BY AGE, 2017-2021



Source: U.S. Census Bureau, Small Area Income and Poverty Estimates

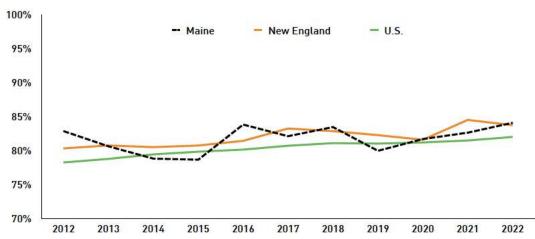
Benchmark: Maine's poverty rate will decline and remain below the U.S. rate through 2030.

3 - Gender Wage Equity

Benchmark: 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 2022, the median earnings of Maine females was \$49,925—84% of the \$59,367 median earnings of Maine males. In other words, for every \$6 earned by Maine men, Maine women earned about \$5, 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 gap. In recent years, women's earnings as a percentage In 2022, women's median wages rose nearly 2% compared to men's, but remained about 84% of men's earnings.

of men's in Maine have improved, from 76% in the 2000s to 81% in the 2010s.

In 2022, Maine's gender income gap was between the U.S. and New England averages. No U.S. state has eliminated the gender pay gap yet, but in eight states, women's earning are 85% or more of men's earnings. Vermont has the lowest gender wage gap. There, women earned 89% as much as men in 2022.



WOMEN'S EARNINGS AS PERCENTAGE OF MEN'S

Median Earnings Gap In 2022





4 - Racial/Ethnic Income Equity

+3%

In 2017-2021, the average incomes of BIPOC* and Latino or Hispanic Mainers rose 3% but remained 31% below White Mainers, dramatically short of full equity.

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 2017 to 2021, the average per capita income of BIPOC* and Latino or Hispanic Maine residents (10% of the population) was \$25,419. This is 69% of the \$37,105 average for white, non-Hispanic Maine. This represents an increase from 66% in 2016-2020, but it means that for every \$10 made by white households, all other racial and ethnic groups made just \$7.

This stark racial/ethnic income disparity is seen across 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 Kentucky, New Hampshire, Washington, and West Virginia, households of color earn over 70% as much as White households.

*Black, Indigenous, People of Color

Maine Poverty Rate by Race/Ethnicity 2017-2021

Race/Ethnicity	Population	Poverty Rate
White, not Hispanic or Latino	1,219,397	11%
Two or more races	44,572	16%
Hispanic or Latino (of any race)	23,074	15%
Black or African American	17,889	26%
Asian	13,568	12%
American Indian & Alaska Native	7,335	26%
Other race	6,619	13%
Native Hawaiian & Pacific Islanders	228	22%

Benchmark: The average per capita income of **BIPOC*** and Latino or Hispanic Mainers will improve to the state average by 2030.

\$60,000 White, non-Hispanic Other races and ethnicities \$45,000 \$30,000 \$15,000 \$0 U.S. New England Maine

Source: U.S. Census Bureau

AVERAGE PER CAPITA INCOME, 2017-2021

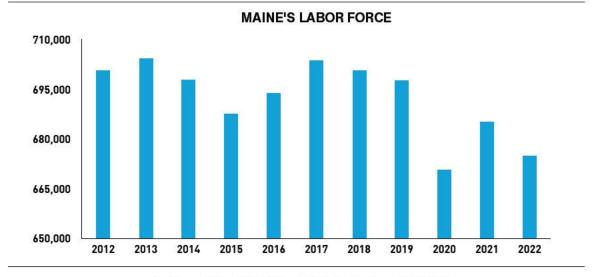
5 - Labor Force

Benchmark: Maine's labor force will increase to 700,000 by 2030. In 2020, Maine's workforce shrank by about 27,000. It regained over 14,000 workers in 2021, but appears to have slumped again last year. In 2022, there were approximately 675,000 in Maine's labor force, below pre-pandemic levels.

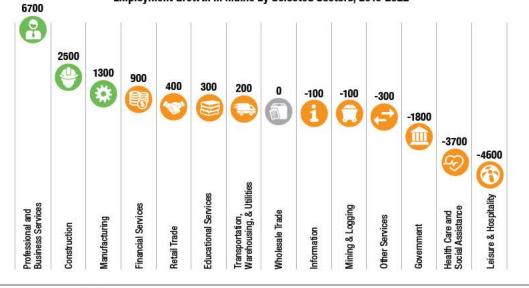
A skilled workforce is essential for a healthy economy. As baby boomers retire, the ranks of working-age Mainers are shrinking. Furthermore, many young people are delaying entering the labor force to pursue education and training opportunities. This has contributed to a slow decline in Maine's labor force, and was made worse by the COVID-19 pandemic. Maine's labor force shrank 1.5% to 675,000 in 2022.

In 2022, the overall number of nonfarm payroll jobs surpassed pre-pandemic levels thanks to gains in professional and business services, construction, and manufacturing. Jobs in leisure and hospitality, health care and social assistance, and government are still recovering.

To grow 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.



Employment Growth in Maine By Selected Sectors, 2019-2022



Source: U.S. Bureau of Labor Statistics

8 Prepared by Maine Development Foundation for the Maine Economic Growth Council, November 2023

Indicators In Action: Labor Force

As Maine's workforce shrinks, the contribution of every individual becomes even more critical —including the formerly incarcerated.

In 2019, Colby Marvin Bracy, Director of Human Resources and Philanthropy at the Nonantum Resort in Kennebunkport, approached her colleagues with a novel idea: recruiting and hiring formerly incarcerated Mainers and those soon to be released from jails and prison. Bracy had a longstanding interest in criminal justice and wondered if the resort could help individuals reentering society. "It's really hard to reintegrate," says Bracy. "The vast majority are very eager to work, very eager to prove themselves—to society, to employers, and even to themselves."

Since 2019, Nonantum has hired fifteen Mainers coming out of incarceration for roles ranging from landscaping to maintenance to housekeeping. Ten continue to work and advance within the company. "They have a strong work ethic, every single one. They are super resilient, open to coaching, and are not discouraged when corrected."

Today, Bracy speaks about Nonantum's experience at forums around the state. She advises employers to help new workers with some of the basic tasks needed to get back on their feet, like opening a bank account and getting a driver's license; and work with them closely to provide clear feedback; and to help connect them with supports such as recovery programs.



Nonantum staff on the resort property. (Photo credit: Russell R. Caron)

"Formerly incarcerated employees are very loyal. In part because we gave them a chance and they feel valued...but more because they prove to themselves and society that they are capable and reliable. They show up for work on time, they are resourceful, and they have great attitudes —they enrich the entire organization."

Colby Marvin Bracy Director of Human Resources and Philanthropy, Nonantum Resort



Staff celebrate Nonantum being named one of the Best Places to Work in Maine, 2023. (Photo credit: Nonantum Resort)

6 - Labor Force Participation

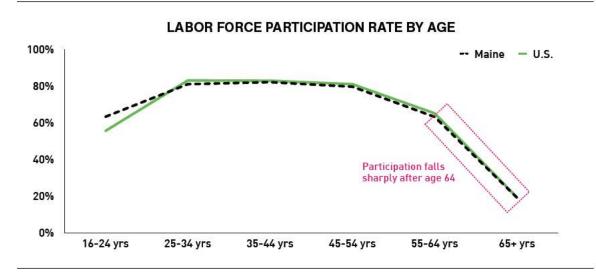
Benchmark: Maine's labor force participation rate for primeworking-age adults will match or exceed the national average. As Maine's population ages, the economic contribution of every individual becomes even more apparent. The labor force participation rate is the percentage of residents who are either working or looking for work. In 2021, 81% of Maine "prime working age" adults (ages 25-54) were in this category, down from 2021 and slightly below the national rate of 82.4%. People of all ages are invaluable to Maine's workforce; this age range is presented here to compare Maine workers with their peers in other states. These estimates are subject to revision.

Maine adults at every age are about as likely to be in the labor force as people in other states. The chart below

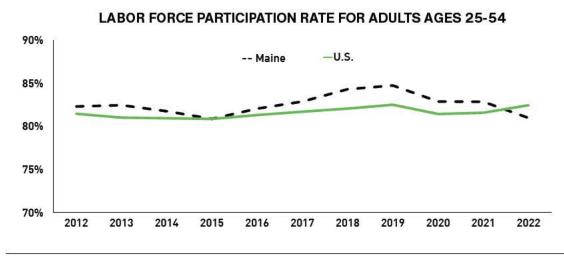
In 2022, 81% of Maine adults ages 25-54 were in the labor force, down from 82.8% in 2021.

shows that Maine adults of all ages work at the same or higher rates as their peers nationwide. However, we have a higher share of residents age 65 or older, who work at lower rates. In 2021, 22% of Maine's population was 65+ compared to just 17% of the U.S. population.

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.



-1.8%



Sources: U.S. Bureau of Labor Statistics, Maine Department of Labor, Center for Workforce Research and Information

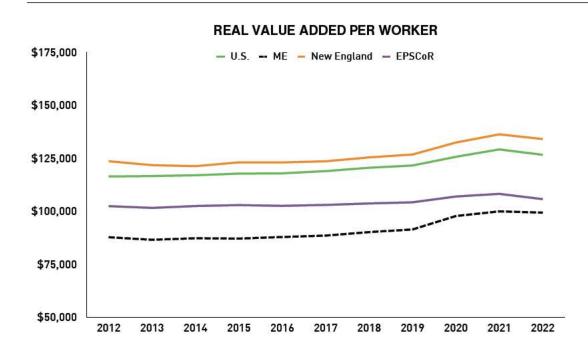
7 - Value Added

In 2022, value added per worker fell 0.6%, and was 22% below the U.S. average.

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

Worker productivity in Maine is lower than in most other states, but it has been increasing. It ranked 42nd among the 50 states in 2022, up from 48th in 2016. Adjusted for inflation, value added fell 0.6% to \$99,365 per worker. While any decrease is unwelcome, the drop is less than it was for the U.S., New England, and other EPSCoR states, which fell 2.0%, 1.6%, and 2.3% respectively. By this measure Maine is now 22% behind the nation, an improvement from 2010-2019, when Maine trailed the U.S. by 25% on 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% growth from 2017 levels. Benchmark: Maine's value added per worker will improve to within 15% of the U.S. average by 2030.



Source: U.S. Bureau of Economic Analysis

8 - Gross Domestic Product

Benchmark: 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.

In 2022, Maine's GDP rose 1.8% adjusted for inflation, although a few industries that did well during the pandemic, such as hospitality and construction, saw a reduction in growth. By this measure, Maine's ranked 23rd of the U.S. states and was just shy of the national and New England growth rates of 2.1% and 1.9%. Over the past decade, Maine's GDP growth has kept pace with New England but trailed the U.S.

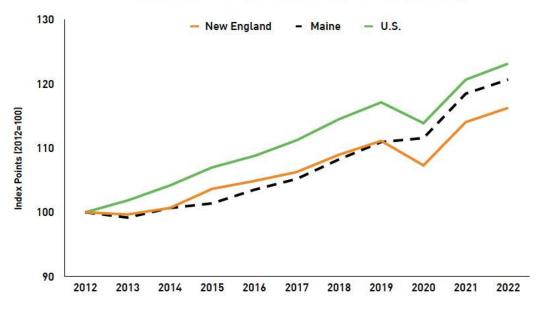
Real estate, government, professional and business services, and health care and social assistance together made up over one-half of Maine's GDP in 2022.

In 2022, Maine's GDP rose nearly 2%, on pace	
with other New England states.	

Maine's Gross Domestic Product By Major Industry Sector 2022

Industry Sector	GDP Millions of Dollars	% of Total	% Change 2020-21
Real Estate	\$10,032	15%	2%
Professional & Business Services	<mark>\$8,858</mark>	14%	10%
Government	\$7,662	12%	2%
Health Care & Social Assistance	\$7,584	12%	2%
Manufacturing	\$6,664	10%	0%
Retail Trade	\$5,154	8%	-2%
Finance & Insur <mark>a</mark> nce	\$4,188	6%	-2%
Wholesale Trade	\$3,351	5%	-3%
Accommodation & Food Services	\$2 <mark>,</mark> 301	4%	- <mark>1</mark> %
Construction	\$1,616	2%	-10%



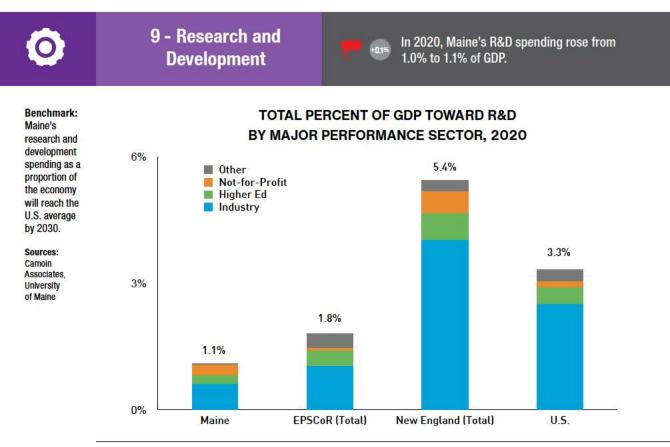


Source: U.S. Bureau of Economic Analysis

ECONOMY IN KEEPING WITH THE ENTREPRENEURIAL SPIRIT



Shukri Abasheikh, owner of the Mogadishu Store in Lewiston. (Photo credit: Abukar Adan/MPBN)

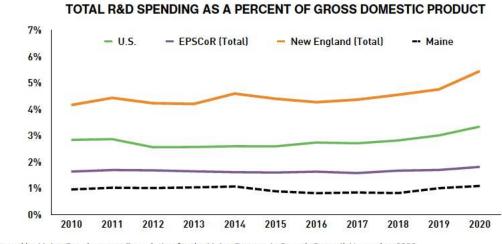


Research and development (R&D) spending is an indicator of the level of innovation in an economy, an important driver of economic growth. In 2020, Maine's total R&D spending was \$769 million, up 12% from the previous year.

R&D spending in Maine represents 1.1% of total gross domestic product (GDP), compared to 3.3% nationwide. This ranks Maine 44th of the 50 states and is about two-thirds of the 1.8% 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 high proportion of spending.

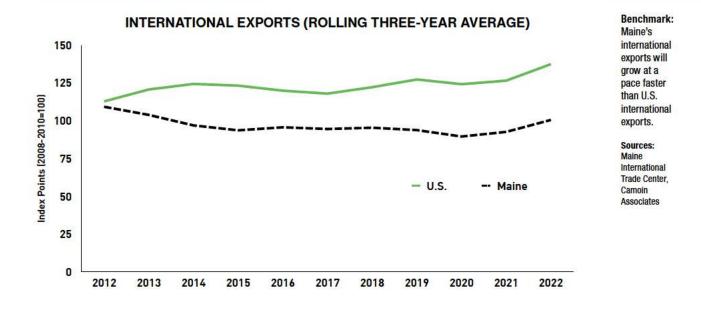
The University of Maine System Board of Trustees has prioritized the expansion of R&D across the system. In 2021, the University of Maine's R&D expenditures reached \$179 million, a record high, and in 2022 the University of Maine earned an R1* top-tier research designation. These gains may improve Maine's 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.



14 Prepared by Maine Development Foundation for the Maine Economic Growth Council, November 2023

Maine exports rose 10% in 2022, reaching their highest level since 2011.



+10%

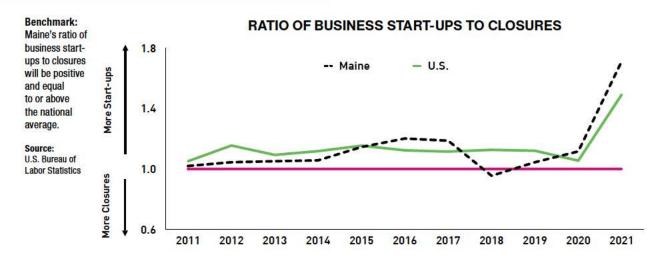
Maine's international exports rose 10% in 2022, continuing the growth that was interrupted by COVID in 2020. In all, Maine businesses exported \$3.4 billion worth of goods abroad, the most since 2011. Nationwide, U.S. exports grew 18%.

Maine's export gains and losses occurred across a range of industries. Seafood exports dropped \$150 million (23%) likely due in part to China's tariff on U.S. lobster, while sales of paper, aircraft parts, medical equipment, and chemical products all rose over 30%. Canada remains Maine's leading trade partner, with \$1.8 billion in exports in 2022, followed by China, Algeria, Malaysia, and the Netherlands.

Sales to customers in other states and countries provide valuable opportunities for Maine businesses. According to one estimate, exports account for about 1.6% of Maine businesses' total sales (below the national rate of 3.4%). Sales made within Maine to international customers, such as those to foreign tourists and students, also provide injections into the state's economy, but are not tracked. 0



In 2021, the number of business starts exceeded closures by 71%, up from 12% in 2020.



This entrepreneurship metric 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. A start-up-to-closure ratio greater than 1 means more businesses are being created than closed each year.

In 2021, Maine's ratio of start-ups to closures was 1.71, meaning 71% more businesses were created (7,867) than closed (4,594). This is a huge increase from 1.12 in 2020, and above the U.S. ratio of 1.49. It reflects a sharp jump in business creations; the number of closures was relatively similar to previous years.

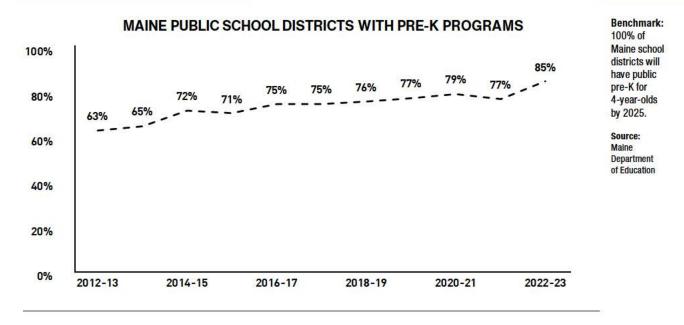
The creation of new businesses is a vital economic activity. Entrepreneurship contributes to innovation, creates jobs, and builds wealth. In a vibrant economy, people have the skills to identify and respond to business opportunities, access to capital, supports for starting and scaling businesses, and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

12 - Prekindergarten Education



In 2022-23, the share of schools with pre-Ks rose to 85%.

0



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. the Maine Children's Cabinet's goal of all districts offering these programs by 2025.

According to the National Institute for Early Education Research, the percentage of Maine four-year-olds enrolled in public pre-K rose from 33% in 2020-2021 to 41% in 2021-2022, nearly returning to pre-COVID levels. Maine's share of publicly educated four-year-olds exceeds the U.S. and New England averages of 32% and 24%, respectively.

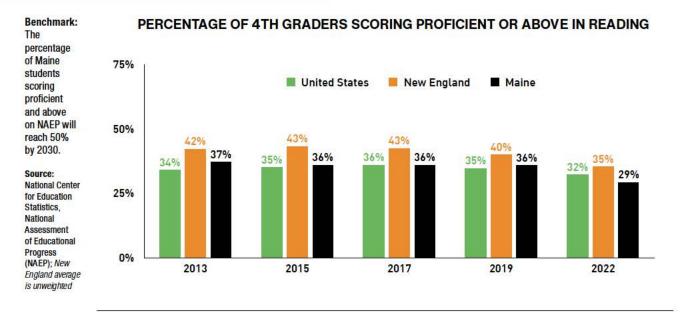
This metric focuses on one component of early childhood education: prekindergarten. In Maine, the percentage of school districts with at least one public pre-K classroom has increased dramatically, from 24% in the late 2000s to 85% last year. The Council supports

0

13 - Fourth-Grade Reading



In 2022, 29% of Maine 4th graders were proficient in reading, a sharp drop from pre-COVID levels.



From 2019 to 2022, fourth-grade reading performance on National Assessment of Educational Progress (NEAP) tests fell in 45 of the 50 states. In Maine, the share of students meeting the proficiency benchmark dropped from 37% to 29% (three percentage points below the national average) This is a change from previous years, when Maine was at or above the U.S. average. Based on the NAEP sample of 1,700 Maine 4th graders, it appears that proficiency declines were largest among low-income students, those with disabilities, and English Language Learners.

Declines were also larger for Black students than White students (other races were not reported).

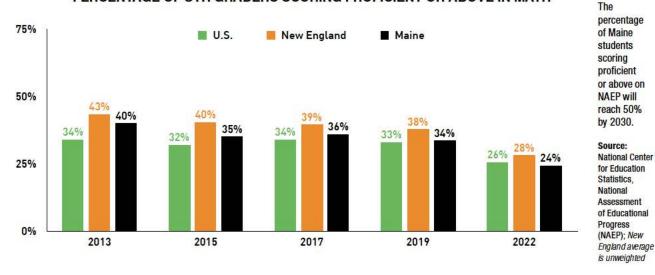
Fourth-grade reading scores are an indicator of future outcomes like educational attainment, employment, and earnings. Fourth-grade reading proficiency is defined as solid academic performance and competency over challenging subject matter, application to real-world problems, and appropriate analytical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





0

Benchmark:



PERCENTAGE OF 8TH GRADERS SCORING PROFICIENT OR ABOVE IN MATH

From 2019 to 2022, eighth-grade math performance on National Assessment of Educational Progress (NAEP) tests fell in all 50 states. In Maine, the share of students meeting the proficiency benchmark fell from 34% to 24%, two percentage points below the U.S. average. This is a change from previous years, when Maine was consistently above the U S. average. Based on the NAEP sample of 1,800 Maine 8th graders, it appears that proficiency declines were largest among lowincome students, those with disabilities, and those whose parents had lower levels of education.

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, which can lead to in-demand job skills and well-paid careers in growing fields. 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. NAEP tests representative samples of fourth and eighth graders every other year to allow national and state comparisons.



Prepared by Maine Development Foundation for the Maine Economic Growth Council, November 2023 19

Indicators In Action: Talent

Project-based team learning helps high school students excel.

In 2022, Eleanor Hoff gave the valedictorian speech to her classmates at Telstar High School (MSAD 44). "[Our] closeness is unlike anything at a larger school. I would drop everything for you guys." The seeds of this camaraderie were planted four years earlier when the class participated in Telstar Freshman Academy (TFA).

At TFA, freshmen ask, "What will my impact be?" Working with a team of faculty and 4-H teachers, they undertake project-based learning tailored to their individual interests while building on a foundation of respect for themselves, others, and the environment. Students have planted a selfsustaining garden, cared for goats, and taken a trip to Washington, D.C. (particularly meaningful for students who have never traveled beyond Western Maine). There are mentorships for students who have experienced trauma.

In the wake of COVID-19, with student test scores low and reports of depression and social isolation high, educators see a strong case for programs like TFA that help students form social connections and gain resilience, in addition to academic skills. Students like Eleanor Hoff, who is now in her second year at Bowdoin College.



Eleanor "E.B." Hoff at her June 2022 graduation from Telstar High School. (*Photo credit: Julie Reiff/The Bethel Citizen*)

"I am surrounded by people who are not just my classmates but are truly my friends. We are each other's biggest supporters."

Eleanor Hoff, Telstar High School Class of 2022



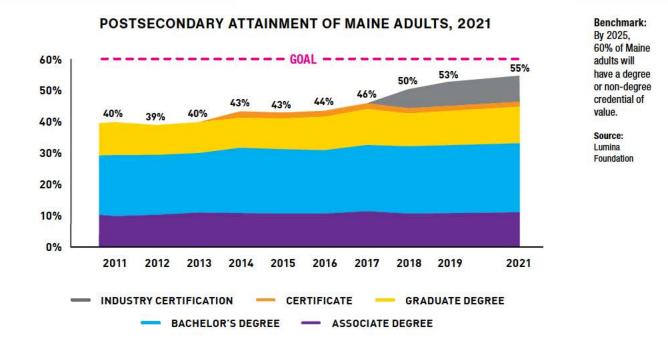
Telstar students during a project-based, team-learning assignment. (Photo credit: Telstar High School)

15 - Postsecondary Degrees and Credentials



In 2021, 55% of Maine adults had a credential of value, up from 53% in 2019.

0



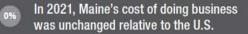
This indicator shows the proportion of Maine adults who hold a postsecondary degree or a non-degree credential of value, such as an industry certification. The Council supports Maine's statutory goal of 60% of adults holding a degree or a non-degree credential by 2025—a goal promoted by MaineSpark, a coalition of education institutions, nonprofits, foundations, government agencies, and businesses.

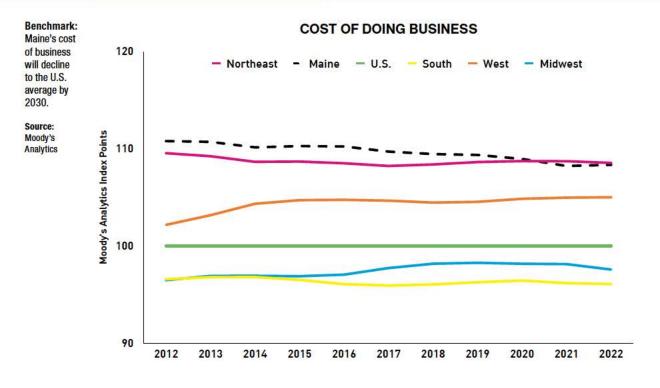
The Council recognizes the growing importance of non-degree career paths, including professional certifications, licenses, digital badges, and military service. The Lumina Foundation reports that in 2021, 7.3% of Maine adults ages 25-64 who lacked postsecondary degrees held one of these occupational credentials. That is above the New England average of 6.1% and below the national average of 8.0%. In all, an estimated 55% of Maine adults ages 25-64 held an associate, bachelor's, graduate, or professional degree, or a non-degree credential of value in 2021, up from 53% in 2019.

	Associate Degree	Bachelor's Degree	Graduate or Professional Degree	Credentials & Certificates	Total
Maine	11.4%	23.5%	12.8%	7.3%	55.0%
New England	8.2%	26.1%	19.2%	6.1%	59.7%
United States	9.2%	22.7%	13.8%	8.0%	53.7%

Postsecondary Attainment of Maine Adults

16 - Cost of Doing Business





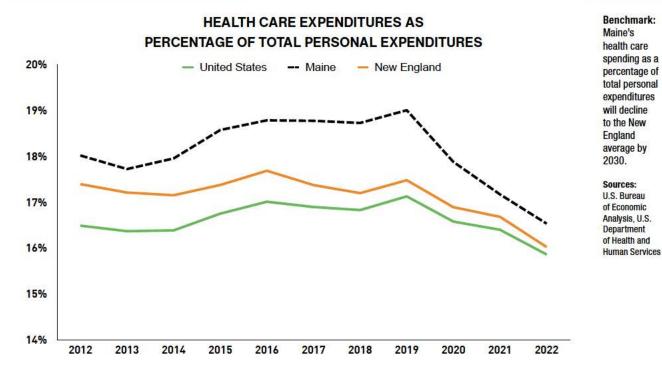
In 2022, Maine's cost of doing business ranked 10th highest in the U.S., but second lowest in New England. The broader Northeast region consistently has higher business costs than other areas of the country, and Maine's costs had exceeded the Northeast average, but in 2022 it was below them for the second year in a row. Maine's labor costs are 19th in the country, while its tax burden ranks 7th.

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.

2022 New England State Ranks: Business Costs (1 is highest cost)

	Overall	Labor	Energy	Tax Burden	
MA	2	4	4	13	
VT	3	12	8	3	
NH	7	7	6	50	
RI	8	14	5	11	
ME	10	19	10	7	
CT	11	44	7	5	

Proportional health care expenditures fell 0.7% in 2022 but remain an ongoing challenge.



-0.7%

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 2022, health care spending in Maine stood at 16.5% of all personal expenditures, down from its peak of 19.0% in 2019. 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 2022, the median contribution for family health insurance coverage of a Maine employee was \$5,800. By this measure, Maine ranked 14th highest of the 50 states. For employers, the median contribution was \$16,000-17th highest. These estimates come from a relatively small survey and should be interpreted with caution.

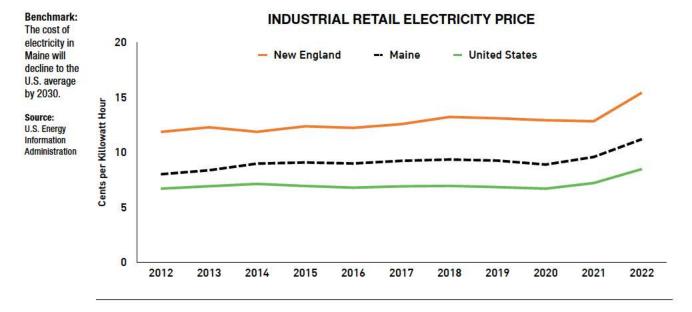


MEDIAN CONTRIBUTION FOR FAMILY COVERAGE, 2022

0



The price of industrial electricity rose 17% in 2022, mirroring nationwide increases.



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 2020) but the highest in New England.

The average industrial retail price of electricity in Maine rose 17% in 2022, from 9.55 to 11.17 cents per kilowatt hour. This was similar to the national increase of 18%. According to the U.S. Energy Information Administration, these price jumps were primarily caused by higher prices for natural gas used in power generation. Maine's industrial electricity rates are still the lowest in New England, and 27% below the regional average, but they exceed the national average by 32%.

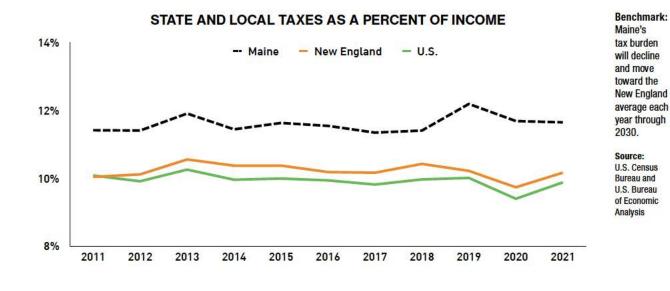
New renewable energy sources could help reduce costs and lower emissions, but they require increased investment in Maine's strained transmission system. A coordinated transmission anticipation process could help address this issue.





In 2021, Maine's tax burden remained unchanged at 11.7%.

0



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.

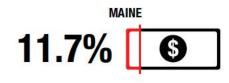
Since 2010, Maine's state and local tax burden has remained at or below 12%, above the New England and U.S. averages. This figure does not account for sales and property taxes paid by out-of-state visitors and second-home owners. In 2021, Maine's tax burden held steady at 11.7%. Meanwhile, the New England and U.S. averages rose slightly. Maine ranks 5th highest of the 50 states in state and local taxes as a percentage of income and 12th highest in tax collections per capita.

State and Local Tax Burden Rank 2021 (1 is highest)

	% of Income	Rank	Per Capita	Rank
U.S.	9.9%	N/A	\$6,334	N/A
NE	10.2 <mark>%</mark>	N/A	\$7,913	N/A
VT	12.2%	3	\$7,528	7
ME	11.7%	5	\$6,791	12
CT	11.4%	6	\$9,424	2
RI	10.1%	19	\$6,488	15
MA	9.7%	22	\$8,107	5
NH	7.4%	47	\$5,409	25

STATE AND LOCAL TAXES AS A PERCENT OF INCOME IN 2021



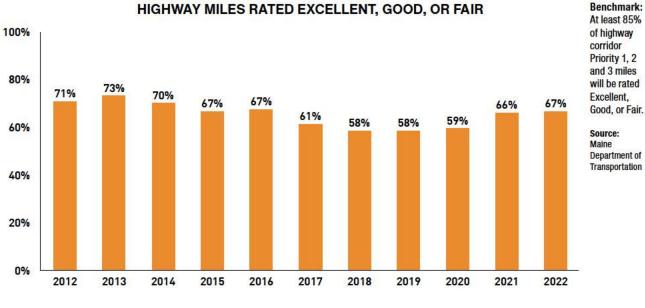


COMMUNITY LIVING, WORKING AND MOVING FORWARD, TOGETHER



(Photo credit: Friends of Woodfords Corner, Portland

20 - 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.

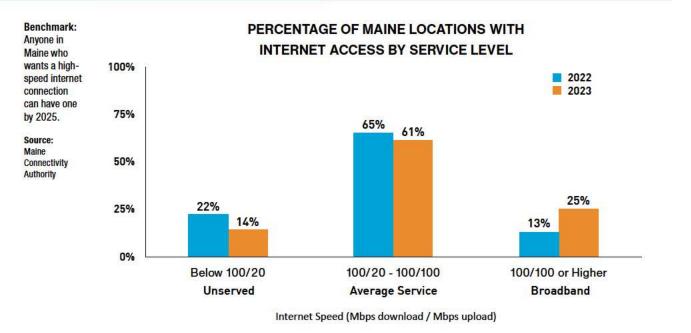
Our roadways carry the vast majority of passengers and freight. Poor road conditions can lead to personal injury, property damage, and extended commute times. The Maine Department of Transportation grades roadways from A (excellent) to F (unacceptable). This measure shows grades for the most-traveled and economically significant ("Priority 1") roadways.

In 2022, 989 miles (67%) of Priority 1 highways were graded A, B or C, up 1% from 2021. Four hundred ninety-two miles (33%) were graded D or F.





In 2023, 86% of Maine locations have either average or broadband internet, up 8%.



High-speed internet is vital to participation in the global economy and modern society, and critical for communities seeking to attract and retain businesses and residents. The Maine Connectivity Authority (MCA) is working to expand access to reliable, high-speed, and affordable internet service statewide.

MCA estimates that 25% of Maine locations currently have access to internet that provides 100 Mbps download and 100 Mbps upload ("100/100" or "broadband internet") or higher. Sixty-one percent have access to speeds of 100/20 to 100/100 ("average service") but less than 100/100, and 14% can only access internet below 100/20 (below 100/20 "unserved"). While this represents a positive trend toward increased connections for Mainers, internet access is still unevenly distributed across the state. For instance, over one-third of locations in Knox, Penobscot, and Piscataquis counties have access to 100/100 or higher, compared to just 7% in Oxford.

Broadband Internet Service by County, 2023 (100 Mbps download/100 Mbps upload or higher)

Coastal Counties	% of locations	
Кпох	36%	
Cumberland	29%	
Sagadahoc	29%	
York	26%	
Hancock	21%	
Waldo	20%	
Lincoln	17%	
Central Counties		
Penobscot	40%	
Kennebec	31%	
Androscoggin	11%	
Rim Counties		
Piscataquis	35%	
Franklin	33%	
Washington	17%	
Aroostook	14%	
Somerset	14%	
Oxford	7%	

Indicators In Action: Internet Connectivity

When you visualize places with lightning-fast internet service, you probably picture skyscrapers. Think again.

As of June 2023, the rural towns of Baileyville, Calais, Alexander, and Indian Township boast some of the world's fastest internet connections.

This 21st-century achievement grew out of old-fashioned Maine ingenuity and neighbors coming together to form the state's first municipally owned broadband utility. Planning for Downeast Broadband Utility (DBU) began in 2018 when two established providers declined to extend service to several Washington County towns. Residents and local businesses realized they would need to create their own solution.

Baileyville and Calais banded together and committed \$2.5 million to connect to a fiberoptic network built in 2012 as part of the Three Ring Binder project. A local company, Pioneer Broadband, joined the effort as service provider and within two years, every household had access to the network. In 2020, nearby Alexander joined them, followed by Indian Township in 2021. Today, DBU serves 830 homes and businesses. The towns of Cooper and Princeton plan to join next summer, adding another 920 customers.

By reconceiving internet as a public utility, these municipalities are showing that innovation is as much about mentality as technology. Through creative collaboration, they have connected themselves to the internet, the world, and opportunity.



(Photo credit: Downeast Broadband Utility)

"There's no one-size-fits-all solution to make sure everyone in Maine who wants high-speed internet can have it, and forming a broadband utility district can give communities another choice in expanding internet access in a way that works best for them."

Andrew Butcher, President, Maine Connectivity Authority

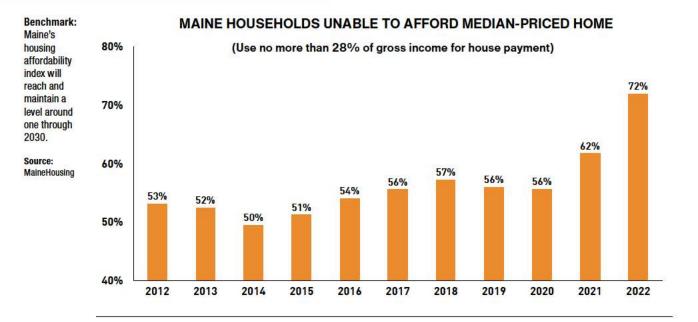


(Photo credit: City of Calais)





Housing affordability appears to have dropped in 2022, but complete data are not currently available.



The housing affordability index usually published in this report (which includes both renters and homeowners) is currently unavailable due to data collection issues. However, data on homeownership affordability shows a troubling trend. The COVID-19 pandemic sparked a surge in homebuying that pushed up sale prices (in Maine and nationwide). As a result, the estimated percentage of Maine households that cannot afford the median-priced home rose to 62% in 2021, then 72% in 2022. This number may be inflated due to an increase in sales of high-priced homes. Nevertheless, the need for affordable housing is a recurring theme across the state. In 2022, homeownership costs exceeded the affordability threshold in every Maine county, a first since MaineHousing began calculating this measure.

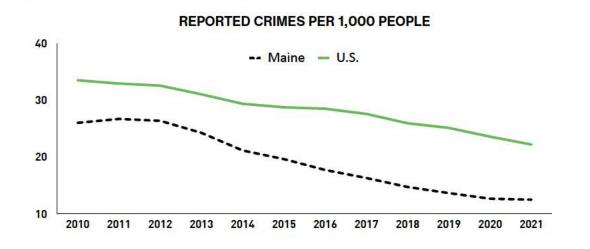
Housing is a significant portion of household budgets, and housing costs reflect everything from the supply of housing stock, to public policies regarding planning and new construction, to lending practices and interest rates. Regions with affordable housing are better able to attract and retain workers.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

Homeownership Affordability Index 2022 (an index value of 1.0 or higher is considered affordable)

	County	Homeownership
	Lincoln	0.54
es	Knox	0.55
Coastal Counties	Cumberland	0.58
	Sagadahoc	0.59
ast	Hancock	0.62
3	Waldo	0.65
	York	0.72
Central Counties	Kennebec	0.74
entral C	Androscoggin Penobscot	0.76
د	Washington	0.65
'n	Oxford	0.67
	Franklin	0.72
3	Piscataquis	0.75
KIM COUNTIES	Somerset	0.78
	Aroostook	0.85
	Maine	0.64

23 - Safety



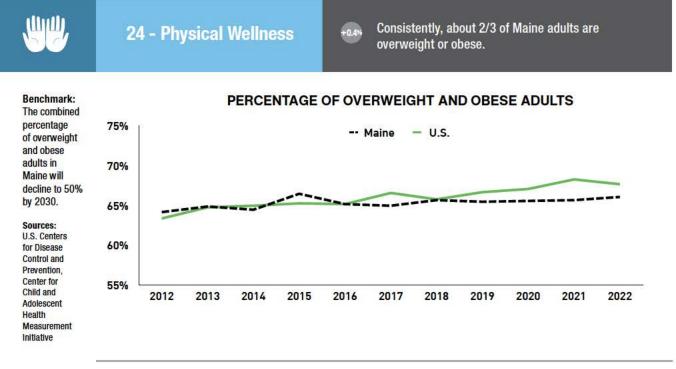


Benchmark: Maine's crime rate will remain 33% or more below the U.S. rate through 2030.

Source: Federal Bureau of Investigation

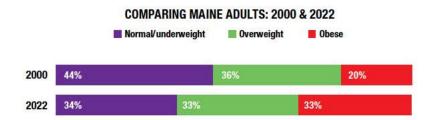
Maine's crime rate in 2021, 12.5 per 1,000 residents, was 44% below the national rate of 22.2 and among the lowest of the 50 states. This is likely due in part to the age of Maine's population, since criminal offenses decline with age. Maine's property crime rate was about one-third of the national average (107.7 per 1,000 residents compared to 334 nationally), and violent crimes were 40% below the U.S. average. Crime rates measure physical safety, an important aspect of quality of life. Crime is costly to individuals and impacts communities by depressing property values, discouraging investment, and increasing insurance premiums. The crime rate includes data on larceny, burglary, aggravated assault, motor vehicle theft, rape, robbery, arson, and murder.

The Council extends its deepest condolences to the families and friends of the 18 people killed in Lewiston in October 2023. There are times when no statistics can adequately convey an event's impact on human lives, both those directly affected and those whose perceptions of personal safety are forever altered. The shootings left us in one of those times and exposed systemic vulnerabilities. While Maine will likely continue to have one of the nation's lowest crime rates, it will take time for Mainers to rebuild our collective sense of security.



In 2021, 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), just below the national average. Maine's rate has steadily risen, up from 56% in 2000. 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 2020-2021, almost 1 in 3 Maine youth ages 10-17 (30%) was overweight or obese, in line with the national rate (33%) .Childhood obesity is a serious, widespread problem that can cause long-term health challenges.







Benchmark:

children with a diagnosed mental and/

or behavioral

condition will decline

over time.

Sources: National

Children's Health Survey, U.S. Centers for Disease Control

and Prevention,

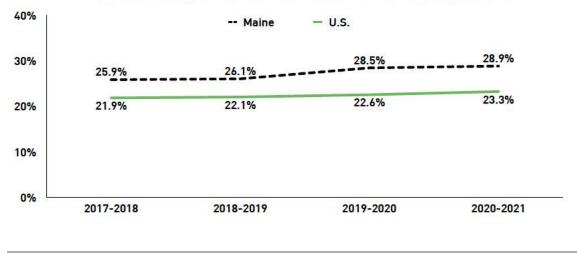
Youth Health Survey, U.S. Census Bureau Household Pulse Survey

Maine Integrated

The share

of Maine

CHILDREN WITH A MENTAL AND/OR BEHAVIORAL CONDITION

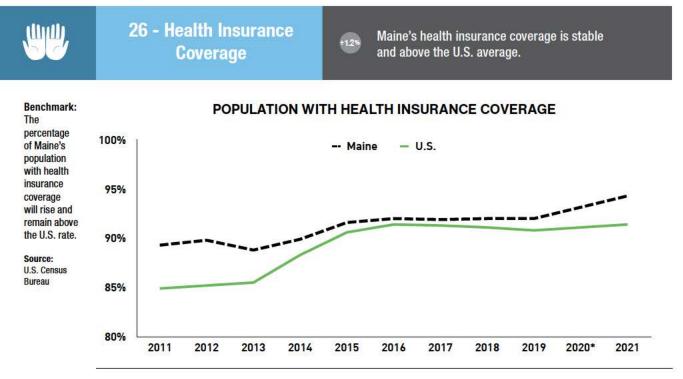


Mental and behavioral health plays an important role in how children learn, grow, form relationships, and handle stress. It influences their overall health and well-being, and their future conduct as employees, parents, and community members.

In 2020-2021, an estimated 28.9% of Maine children had a diagnosed mental, emotional, and/or behavioral condition such as anxiety, depression, a learning disability, or autism. This was up from 28.5% in 2019-2020 and significantly higher than the U.S. average of 23.3%. In 2021, 36% of Maine high schoolers reported feeling sad or hopeless every day for two weeks or more. According to the Maine Children's Alliance, "teen mental health is a growing crisis in the state and the nation."

Many older Mainers are also experiencing challenges. Mental wellness impacts individuals' quality of life and their activities at home, at work, and within their communities. In July-August 2023, approximately 27% of Maine adults had symptoms of anxiety or depression. By comparison, about 33% of adults nationwide reported these symptoms—up from just 11% in 2019. Maine is seeing record high drug-related deaths, and the impacts of substance use ripple through households, schools, and communities.

* Diagnoses are reported by parents and include anxiety, depression, behavior and conduct problems, developmental delay, intellectual disability, speech or language disorder, learning disability, Autism, Attention Deficit Disorder or Attention Deficit/Hyperactivity Disorder, and Tourette Syndrome.



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 exceeded 90% since 2015. In 2021, it was 94%, three percentage points above the national average of 91%. An estimated 78,000 people in Maine do not have health insurance coverage. Regionally, health insurance coverage rates for people under age 65 range from 89% in Washington County to 94% in Cumberland County.

The Census Bureau's Small Area Health Insurance Estimates offer data on racial differences in health insurance coverage in Maine. In 2021, 93% of White and Asian Mainers under age 65 had health insurance coverage, compared with 91% of Black Mainers, 89% of American Indian Mainers, and 84% of Hispanic Mainers.

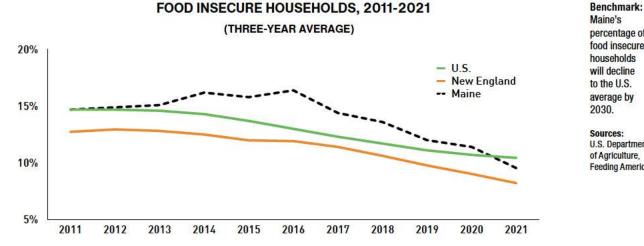
Population with Health Insurance Coverage, 2021

	County	Rate
	Cumberland	94.2%
	Sagadahoc	93.4%
12	York	93.2%
	Кпох	91.6%
	Waldo	91.3%
25	Hancock	91.0%
	Lincoln	90.9%
	Androscoggin	92.9%
100	Kennebec	92.7%
	Penobscot	92.1%
	Franklin	91.9%
18	Oxford	91.7%
	Somerset	91.7%
14. 15	Aroostook	91.0%
1	Piscataquis	90.7%
	Washington	89.4%



In 2019-2021, the share of Mainers experiencing food insecurity fell about 2%.





percentage of food insecure households will decline to the U.S. average by

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.

According to the U.S. Department of Agriculture, about 1 in 10 Maine households (9.5%) was food insecure in 2019-2021, down from 11.4% in 2018-2020. This may reflect expanded access to government programs and the hard work of Maine organizations focused on hunger reduction. However, the change is within the margin of error for the estimates, meaning the trend is likely positive but the magnitude may be overstated. Keeping this uncertainty in mind, Maine's rate of food insecurity appears to be below the national average of 10.4% and above the New England unweighted average of 8.2%.

County-level data are from a different source with a slightly higher estimate of food insecurity (10.5% for Maine in 2021). According to Feeding America, 2021 food insecurity ranged from 8.2% in Cumberland County to over 14% in Piscataquis, Somerset, and Washington counties.

County Rate Cumberland 8.2% Sagadahoc 8.8% Coastal Counties 8.9% York 8.9% Knox Hancock 9.7% 9.8% Lincoln 10.9% Waldo Central Counties Kennebec 10.9% Androscoggin 11.5% 11.7% Penobscot Franklin 10.7% Oxford 12.0% **Rim Counties** 13.4% Aroostook Piscataquis 14.1% Somerset 14.3% Washington 15.1%

Food Insecurity Rates by County, 2021





In 2022, there were 24 moderately unhealthy

days, four fewer than last year.

Very Unhealthy

Unhealthy

Benchmark: The overall 100 number of days classified as a health risk and the severity of risks will be 75 maintained through 2030. **Fotal Number Of Days** Source: Maine Department of 50 Environmental Protection 25

n

28 - Air Quality

MAINE AIR QUALITY INDEX

Unhealthy for Sensitive Groups Moderate 1985 1990 1995 2000 2005 2010 2015 2018 2019 2020 2021 2022

In 2022, there were 24 moderate air quality days, and 2 days rated unhealthy for sensitive groups. After declining in the 1980s and 1990s, air quality in Maine has improved substantially, and is better than most other states.

Maine's air quality index is based on ozone levels, and reflects the number of days each year when the maximum ozone level recorded in the state 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 2022, Maine maintained its excellent water quality rating.

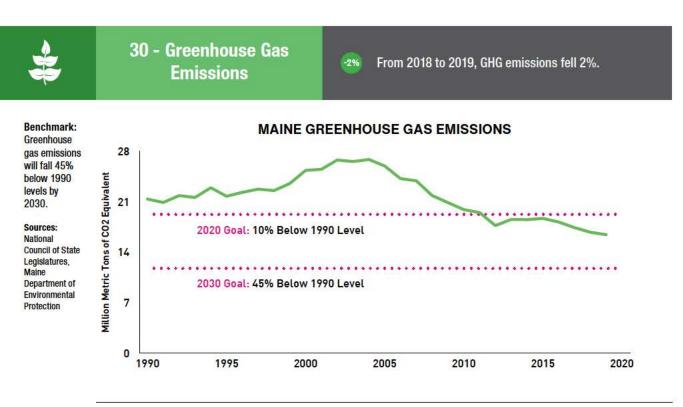


Benchmark:

WATER BODIES RATED CATEGORY 1 OR 2 (GOOD), 2006-2022 The 100% percentage -- Maine Rivers and Streams of Maine's Maine Lakes assessed --- U.S. Rivers and Streams water bodies U.S. Lakes classified as Category 1 75% or 2 will be maintained over time. Source: 50% Maine Department of Environmental Protection (*U.S. ratings 25% for 2016 reflect multiple years between 2014 and 2022.) 0% 2006 2008 2010 2012 2014 2016* 2022

This measure is based on reports by the Maine Department of Environmental Protection and U.S. Environmental Protection Agency (EPA) on the water quality of Maine rivers, streams, and lakes. The proportion of water bodies achieving Category 1 and 2 ("good") classifications are compared to the rest of the U.S. 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 been very high, with 95% of rivers and streams and 91% of lakes achieving Category 1 or 2 in 2022. Nationally, just 31% of U.S. rivers and streams, and 19% of the lakes, were rated "good." The sharp recent drop in U.S. quality has many causes, including a significant increase in the number of assessed water bodies, Differing assessment methods across states, and actual declines in water quality.



From 2018-2019, Maine's greenhouse gas (GHG) emissions fell 2%, from 16.8 to 16.4 million metric tons of carbon dioxide. In 2019, emissions were 23% below 1990 levels, meaning Maine is continuing to progress toward its 2030 goal. Emissions are calculated biennially by the Maine Department of Environmental Protection (DEP); more recent data will become available in 2024.

In 2003, Maine became the first U.S. state to enact a statutory target for 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.

According to DEP, about 91% of Maine's emissions are from energy consumption, mostly from the combustion of petroleum products. The other 9% 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.

Indicators In Action: Greenhouse Gas Emissions

Maine businesses are becoming "green economy" leaders—creating new jobs while reducing greenhouse gas emissions.

In March 2023, Brewer-based Nyle Systems announced the creation of a second factory, this one in Bangor, to manufacture energy-efficient heat pumps, creating about 200 jobs over time. With this news, Nyle joined the growing list of Maine companies leading the nation's transition to clean energy while creating opportunities for Maine people.

Nyle Systems' roots go back to the 1970s when it built dehumidification systems for drying lumber. It still sells these, but today it also manufactures food drying systems and heat-pump water heaters for customers nationwide. The heat pumps replace gas boilers and reduce demand for fossil fuels when electrified from a renewable source. They are also cheaper to operate and can save consumers thousands of dollars every year.

CEO Ton Mathissen explained to WABI TV5 the impact of rising demand for clean, energyefficient solutions and the company's growth: "That is really what is driving this." Both Maine and the federal government offer incentives for households to install heat pumps.

Nyle Systems' new factory will significantly increase the company's workforce, which was about 120 people prior to the expansion. The company has doubled in size every three to four years since 2010 and intends to keep going.



(Photo credit: Nyle Systems)

"We plan to keep this growth going for the long term to have a meaningful impact in transitioning our world onto a sustainable path for the next generations. Speed matters!"

Nyle Systems



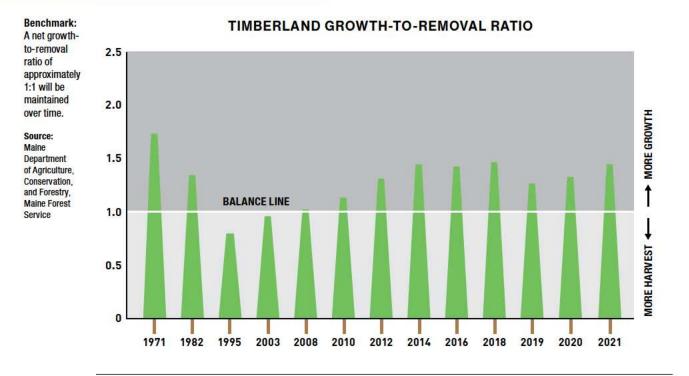
(Photo credit: Nyle Systems)



31 - Sustainable Forestlands



In 2021, the growth-to-removal ratio rose 8% to 1.43 and remained above the sustainability goal.



The sustainable management of Maine's forests is measured by the growth-to-removal ratio. A net growth value above one means growth exceeds removals, and a value below one means removals exceed growth. Forests cover nearly 90% of Maine's land area. Private entities and individuals own 92% 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 building materials to alternative fuels.

Sustainable forestry supports Maine's economy, environment, and quality of life, and well-planned forest management activities can help address issues related to forest health, climate change, and other factors affecting forest conditions. Since 2010, Maine has seen slightly more growth than removals. In 2021, the growth-to-removal ratio rose 8% to 1.43.

BACKGROUND

The Maine Economic Growth Council was established by statute in 1993 to develop, maintain, and evaluate a longterm 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 co-chaired by Steve Von Vogt, President and CEO of Maine Marine Composites and State Representative James Dill (D-Old Town). 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 public-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

The Maine Economic Growth Council and MDF extend their sincere appreciation to the individuals and organizations that generously provided data and guidance in the development of this report. Special thanks to Brian Allenby and Meghan Grabill of the Maine Connecitivity Authority, Andrew Bickmore of the Maine Department of Transportation, Jim Damicis of Camoin Associates, Wade Merritt of the Maine International Trade Center, Morten Moesswilde of the Maine Forest Service, and Stacy Knapp, Susanne Meidel, and Martha Webster of the Maine Department of Environmental Protection. This year's report was written by Catherine deLutio. The print version was designed by Cassidy Parmley of Pica and printed by J.S. McCarthy. The web version was designed by Josh Emerson of VONT.

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 2023

Stephen Von Vogt, Co-Chair President and CEO Maine Marine Composites

Hon. James Dill, Co-Chair State Representative House District 26

LuAnn Ballesteros Vice President, External and Government Affairs The Jackson Laboratory

Keith Bisson President Coastal Enterprises Inc.

Sheena Bunnell Professor of Business Economics University of Maine at Farmington Donna Cassese

Government Relations Consultant Sappi North America

James Erwin Partner Pierce Atwood LLP & Former Chair, University of Maine System Board of Trustees

Steve Hewins *Hospitality Consultant* Former CEO, HospitalityMaine

Thomas Kittredge Economic Development Director City of Belfast

John Napolitano

Retired Former President, Maine State Building and Construction Trades Council

Hon. Harold Stewart State Senator Senate District 2

Tim Walton *Founder and President* Walton External Affairs

Julia Trujillo Luengo (Commissioner's Designee) Implementation Director, State of Maine Economic Development Plan, Maine Dept. of Economic and Community Development

Online Report available at: www.mdf.org/economic-policy-research/measures-of-growth-report









2 Beech Street, Suite 203 / Hallowell, ME 04347 / 207-622-6345 / mdf.org