

MEASURES OF GROWTH

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

2017



MAINE
DEVELOPMENT
FOUNDATION

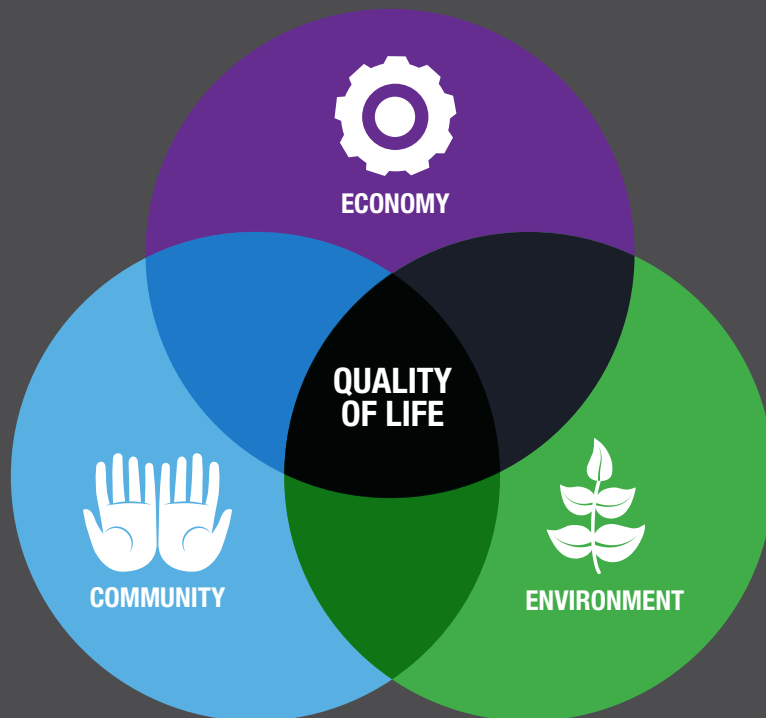


MEGC
Maine Economic
Growth Council

23RD
REPORT OF
THE MEGC

VISION

A HIGH QUALITY OF LIFE
FOR ALL MAINE PEOPLE





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

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



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A LONG-TERM PERSPECTIVE ON MAINE'S ECONOMY

The Maine Economic Growth Council's vision is a high quality of life for all Maine people. The Council believes this vision can be achieved through a vibrant and sustainable economy, thriving communities, and a healthy environment. In practice, we need to grow our economy in a way that honors and builds upon what is special and unique about our state. The indicators in this report, and other potential indicators, are carefully reviewed for their relevance and importance in achieving our vision.

The Council was established by statute to develop, maintain, and evaluate a long-term economic plan for the State, including the development and recommendation of goals, benchmarks, and alternative strategies for a sustainable Maine economy. The *Measures of Growth* report is intended to serve as a guide to policymakers at all levels, helping them to focus their efforts and understand the connections between and among the major issues affecting the economy and the well-being of Maine people. The Council has refrained from being overly prescriptive in its work, instead serving as a reliable and unbiased source of data and evaluation. While we believe the chosen indicators have utility in informing strategy and policy, the Council does believe our work would be even more impactful and valuable if the original mandate to develop a long-term economic plan could also be undertaken with adequate resources committed to the endeavor.

Several major themes underlie the Council's work. Maine's human capital is a key factor in improving our economy, productivity, and quality of life. Foundational issues like poverty, food insecurity, and health and wellness are affected by, and in turn affect, the overall state of our economy. Limiting the costs of doing business and of essentials for individuals and families makes it easier to live and do business in the state and makes us a more attractive destination for others. Our wealth of natural, built, and civic assets help define us as a state and strengthen the Maine brand.

Thoughtful and coordinated investment in the pillars of our economy – our educational system, our innovative capacity, and our infrastructure – is essential.

In this report, Maine may be compared to our own prior performance, or to the U.S., New England, and/or Experimental Program to Stimulate Competitive Research (EPSCoR) averages. The EPSCoR program includes Maine and a number of large, mostly rural states, and provides an informative comparison in assessing our performance. The Council considers past performance and current conditions in establishing future benchmarks for each indicator that are aspirational and potentially attainable and against which our progress is measured. In the current report, four indicators were assigned a plus, five were assigned a minus, sixteen were determined to be equal, and one was assigned no grade. While the focus of the Council is at the state level, statewide data may conceal the sometimes considerable discrepancies among Maine regions, counties, and municipalities, of which we should be aware and mindful. Formerly included as an indicator, on-the-job injury and illness rates for Maine and the U.S. have both continued their downward trend.

Largely continuing the pattern from previous years, **Gold Stars** signifying exceptional performance were assigned to:

- International Exports
- Air Quality
- Water Quality






Red Flags highlighting areas in need of particular attention were assigned to:

- Research and Development Expenditures
- Fourth Grade Reading Scores
- Postsecondary Educational Attainment
- Working Age Population
- Transportation Infrastructure





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Indicators



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The net growth to removals ratio has been trending upward in recent years, reaching 1.55 in 2015

Key to Symbols

GOLD STARS & RED FLAGS

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.

PROGRESS SYMBOLS

Progress Symbols reflect movement from year to year and/or recent trends toward or away from the benchmarks established by the Council. No grade may be assigned to new indicators, indicators with a new data set, or indicators for which updated data is not available. The general criteria for grades are:



Movement toward the benchmark since the last available data.



No significant movement relative to the benchmark since the last available data.



Movement away from the benchmark since the last available data.

FUNDAMENTAL PERFORMANCE INDICATORS

This report is about the status of Maine's economy and how it impacts the lives and livelihood of Maine's people. Each indicator represents a key area the Growth Council believes influences our economy, environment, and community. These are the leverage points which will help determine the direction of our economy and, ultimately, our quality of life in the years ahead.

There are also a few fundamental performance indicators that speak to the overall health of Maine's economy as seen from the 30,000 foot level. They are, in a sense, the culmination of what we collectively do in many areas and are often influenced by forces beyond our borders.

These high-level indicators include: Gross Domestic Product, Per Capita Personal Income, Value Added per Worker, Employment, and Poverty.

1 - Gross Domestic Product

Benchmark: The growth of Maine's gross domestic product will outpace that of New England and the U.S.

The growth rate of Maine's economy provides a sense of our overall economic performance. Like the other fundamental performance indicators, the growth of our economy is dependent upon a range of other factors.

Maine's gross domestic product (GDP) grew by 1.1%, from \$50.5 billion to \$51.1 billion, from 2014 to 2015. The New England economy grew by 2.4% and the U.S. economy grew by 2.5% over the same time. From 2010 to 2015, Maine's GDP was essentially even (0.3% growth), while the New England economy grew by 4.1% and the U.S. economy grew by 10%.

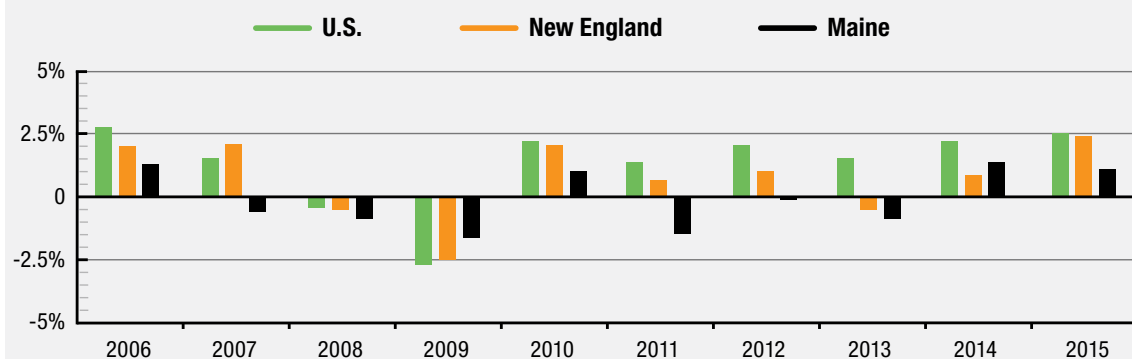
Real Estate, Government, Health Care and Social Assistance, Manufacturing, and Retail Trade accounted for 60% of Maine's gross domestic product in 2015.

Fig 1a: Maine's Real Gross Domestic Product By Major Industry Sector 2015

Industry Sector	GDP Millions of Dollars	% of Total	% Change 2014-15
Real Estate	\$7,804	15%	0.2%
Government	\$7,080	14%	0.1%
Health Care and Social Assistance	\$6,027	12%	2.6%
Manufacturing	\$4,883	10%	-1.6%
Retail Trade	\$4,450	9%	2.3%
Wholesale Trade	\$2,912	6%	3.7%
Finance and Insurance	\$2,681	5%	0.1%
Prof., Scientific & Technical Services	\$2,662	5%	3.8%
Construction	\$1,905	4%	1.2%
Accommodation & Food Services	\$1,939	4%	0.9%

Source: Bureau of Economic Analysis

Fig 1b: Real Gross Domestic Product Growth Rate 2006-2015



Source: Bureau of Economic Analysis



2 - Per Capita Personal Income

Benchmark: Maine's per capita personal income will exceed the EPSCoR state average by 2020

Maine's per capita personal income continues to grow but trailed the 2016 U.S. average by \$5,300, the New England average by \$18,200, and the EPSCoR state average by \$1,200. Maine's growth from 2011 to 2016 was equal to the EPSCoR average at 14%, but trailed the U.S. average of 17% and the New England average of 16%.

Per capita personal income speaks to economic prosperity, job quality, worker productivity, quality of life, and the makeup of the economy. Maine ranks well below the other New England states. Additionally, a comparatively large percentage of our total personal income has historically come from transfer payments (such as Social Security, unemployment, welfare, and veteran's benefits) for which no current services are performed and which contribute less to Maine's economy.



3 - Value Added per Worker

Benchmark: Maine's value added per worker will improve to within 15% of the U.S. average by 2020

This indicator measures the productivity of workers by dividing a region's total economic output by the total number of full- and part-time workers. While Maine's performance is negatively affected by our higher percentage of part-time workers, considerable improvement is needed. Productivity is the result of a number of factors, including the education, training, and health status of workers, the cost of doing business, the infrastructure that supports the economy, and the makeup of an economy.

Maine's output per worker is steadily improving, growing from \$89,100 to \$91,700 (2.9%, or \$2,600) from 2014 to 2015. Yet among the 50 states and the District of Columbia, Maine ranked next to last in output per worker in 2015, trailing the U.S. average of \$121,400 by 24%, the New England average of \$128,000 by 28%, and the EPSCoR average of \$104,500 by 12%. From 2010 to 2015, output per worker increased by 8.4% in Maine, by 10.7% in the U.S., by 8.1% in the New England states, and by 9.5% in the EPSCoR states.

Fig 2a: Per Capita Personal Income 2010-2016

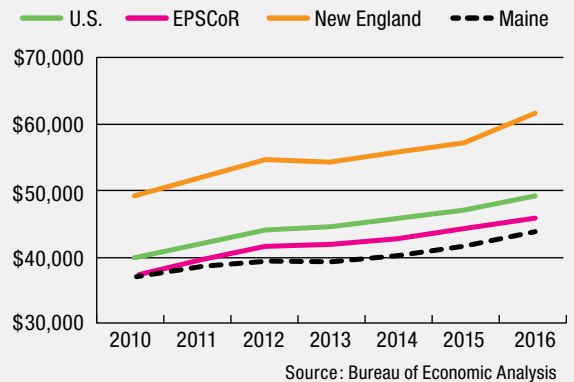
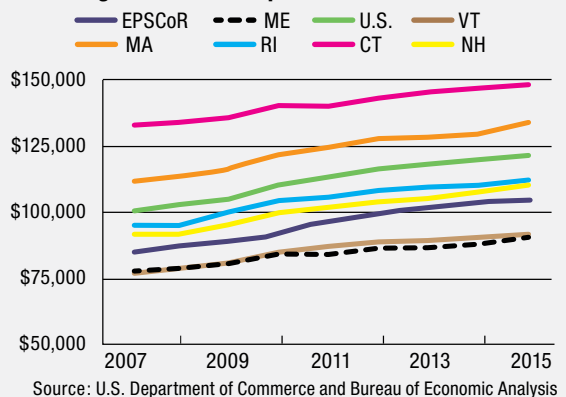


Fig 2b: 2016 Personal Income and National Rank, New England States

	Income	Rank	Change 2015-16	%Change 2015-16
United States	\$49,571	N/A	\$1,381	2.9%
New England	\$62,469	N/A	\$2,198	3.6%
EPSCoR	\$45,506	N/A	\$896	2.0%
Connecticut	\$71,033	2	\$2,211	3.2%
Massachusetts	\$65,137	3	\$2,440	3.9%
New Hampshire	\$58,322	6	\$2,396	4.3%
Rhode Island	\$51,576	17	\$1,526	3.0%
Vermont	\$50,321	20	\$1,737	3.6%
Maine	\$44,316	33	\$1,521	3.6%

Source: Bureau of Economic Analysis

Fig 3: Value Added per Worker 2007-2015





4 - Employment

Benchmark: The total number of jobs in Maine will increase each year

Maine added 6,700 nonfarm payroll jobs from 2015 to 2016, growing from 610,600 to 617,300. Maine has added 24,300 nonfarm payroll jobs since the low of 593,000 in 2010 and is nearly back on par with the 2007 high of 617,700. Maine has continued to add jobs while our workforce continues to decline. However, the decline in Maine's working aging population since the 2007 peak will present challenges in the years ahead. Our recent low unemployment rates (3.2% in February) are evidence of a tight labor market that is creating challenges for employers looking to add workers. Growing our gross domestic product and per capita income will be difficult if current trends continue, as a rising share of Maine's population will not be working.

The Government sector includes jobs at the federal, state, and local levels, including public education at all levels. Together, the Government, Health Care and Social Assistance, Retail Trade, Leisure and Hospitality, and Manufacturing sectors continue to account for almost two-thirds of Maine's total employment. Health Care and Social Assistance continues to lead the way in job growth, adding 1,600 jobs from 2015 to 2016 and a total of 4,100 jobs from 2011 to 2016. In terms of economic output, productivity improvements have largely offset the loss of jobs in the manufacturing sector. While total manufacturing jobs are expected to decline, new workers will be needed to replace an aging workforce.

While job growth is important, it is also important to identify the sectors that add the greatest value to Maine's economy and the quality of life of Maine people. Understanding the dynamic nature of employment in Maine can help educational institutions, students, workers, service providers, and policymakers align resources, education, and training with the opportunities available in Maine's economy.

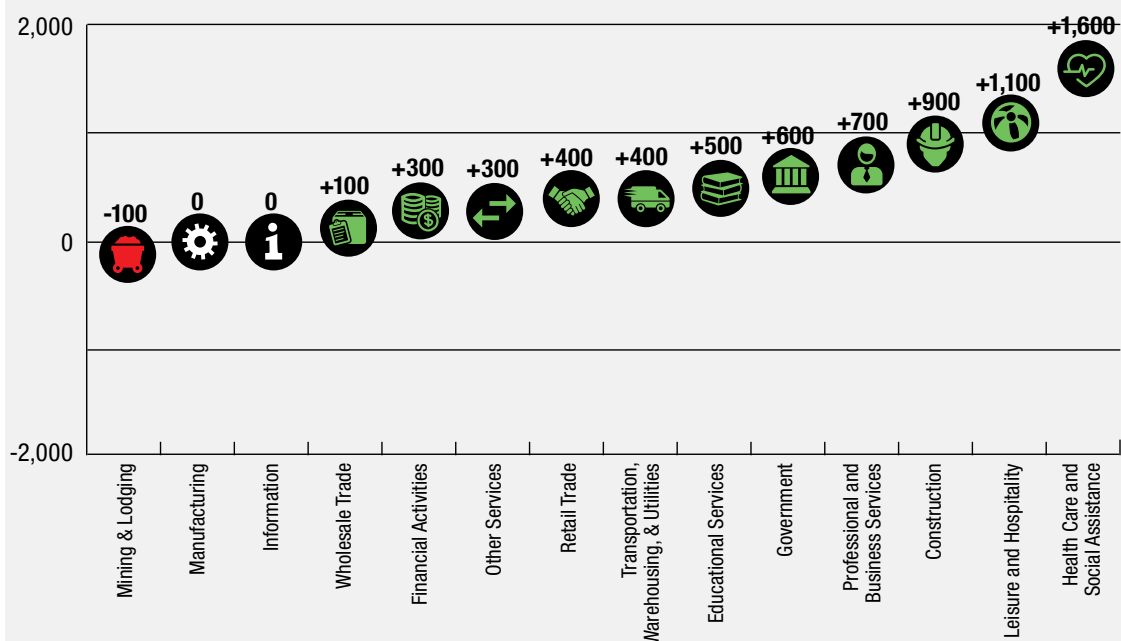
Fig 4b: Employment in Maine by Selected Sectors 2016

	Employment	% of Total
Health Care and Social Assistance	103,600	16.8%
Government	100,100	16.2%
Retail Trade	82,000	13.3%
Professional and Business Services	65,500	10.6%
Leisure & Hospitality	65,200	10.6%
Manufacturing	50,700	8.2%
Financial Activities	30,900	5.0%
Construction	27,400	4.4%
Educational Services	21,700	3.5%
Other Services	21,700	3.5%
Wholesale Trade	20,000	3.2%
Transportation, Warehousing, and Utilities	18,500	3.0%
Information	7,700	1.2%
Mining & Logging	2,300	0.4%

Source:

Maine Department of Labor Center for Workforce Research and Information

Fig 4a: Employment Growth in Maine By Selected Sectors 2016



Source: Maine Department of Labor, Center for Workforce Research and Information

5 - Poverty

Benchmark: Maine's poverty rate will decline and remain below the U.S. rate through 2020

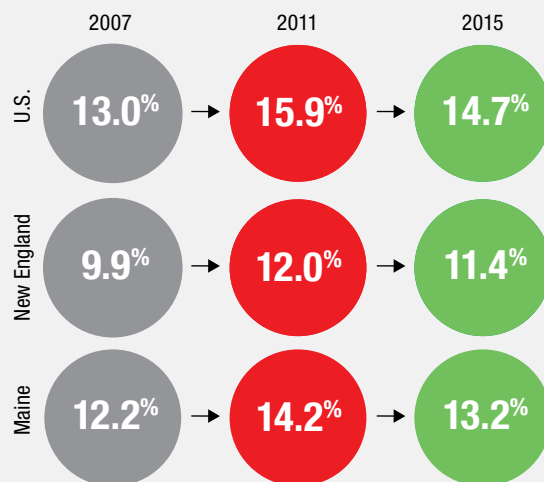
Maine's poverty rate has consistently been below the U.S. average and above the New England average. Poverty rates rose in all three areas from the early 2000s to the latter part of the decade before leveling out and then declining from 2014 to 2015.

Poverty rates vary widely by region in Maine, with higher rates in the central and rim counties and lower rates in southern and coastal counties. From 2014 to 2015, rates declined in ten counties (York, -2.9%; Knox, -2.5%; Aroostook, -1.7%; Hancock, -1.4%; Franklin, -1.2%; Piscataquis, -1.2%; Penobscot, -0.9%; Kennebec, -0.7%; Waldo, -0.6%; and Androscoggin, -0.4%), were essentially even in two counties (Cumberland and Washington), and increased in four counties (Lincoln, +3%; Somerset, +1.4%; Oxford, +0.9%; and Sagadahoc, +0.7%).

The poverty rates for Maine children under five (23% to 19.5%) and under 18 (19% to 17.5%) both declined from 2014 to 2015 and remained below U.S. averages (22.8% and 20.7% in 2015). As with overall poverty rates, rates for children under 18 are generally higher in the central and rim counties and lower in southern and coastal areas. For more information and data on childhood poverty in Maine, see the Maine Children's Alliance's Kids Count Project at www.datacenter.kidscount.org/data#ME.

Poverty rates are both a reflection of Maine's overall economic performance and a key to improving our economy and quality of life. Improving our economy can reduce poverty. Reducing poverty, in turn, can help improve outcomes for people (educational performance, employment, food insecurity, and health) and Maine's economy (increased gross domestic product, per capita personal income, productivity, and workforce participation, and reduced health care costs). Reducing Maine's poverty levels depends on improved performance on a number of other measures.

Fig 5a: Poverty Rates 2007-2015



Source: U.S. Census Small Area Income & Poverty Estimates

Fig 5b: Poverty Rate By Maine County 2015

		County	Poverty Rate
Coastal Counties		York	8.3%
		Cumberland	10.7%
		Sagadahoc	11.2%
		Lincoln	14.7%
		Knox	11.4%
		Waldo	14.4%
		Hancock	11.5%
Central Counties		Androscoggin	15.0%
		Kennebec	13.1%
		Penobscot	17.1%
Rim Counties		Oxford	17.0%
		Franklin	14.6%
		Somerset	18.7%
		Piscataquis	19.1%
		Aroostook	18.4%
		Washington	18.8%

Source: U.S. Census Small Area Income & Poverty Estimates



ECONOMY IN KEEPING WITH THE ENTREPRENEURIAL SPIRIT.





6 - Research and Development Expenditures

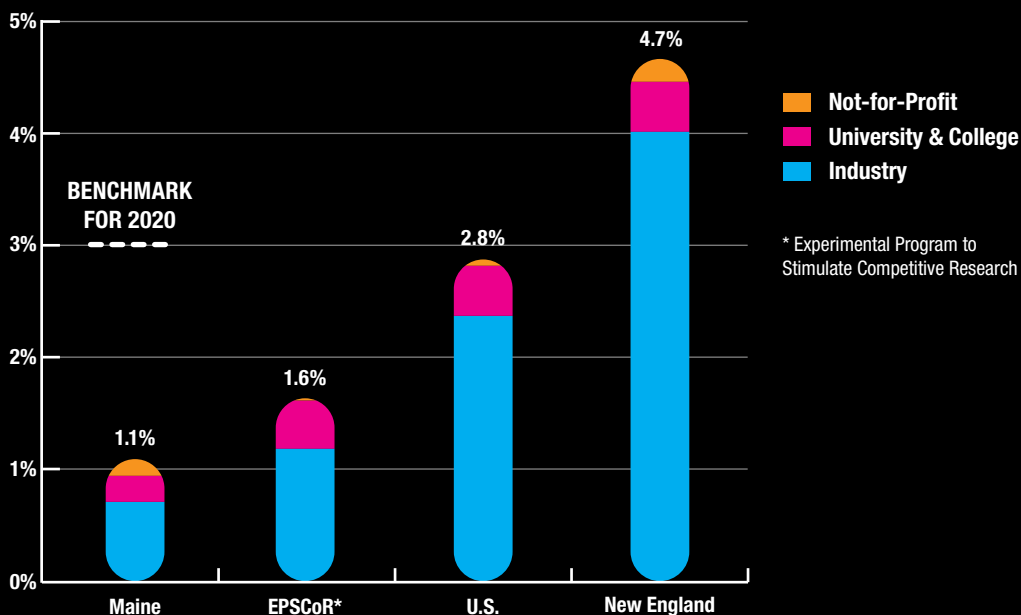


Research and Development Investment
Vital to Maine's Economy

Benchmark:
Maine's total spending on research and development will reach 3% of the state's total GDP by 2020

Source:
Camoin Associates, National Science Foundation

TOTAL PERCENTAGE OF GDP SPENT TOWARD R&D IN 2014



Background: This indicator compares total R&D spending as a percentage of a region's total gross domestic product, and compares the percentage of total R&D spending from three primary sources – not-for-profit, university and college, and private industry. National Science Foundation data for 2012, 2013, and 2014 is now available.

What the Data Shows:

- Maine's 2014 total R&D investment of \$596 million was approximately 1.1% of the state's total gross domestic product, which ranked 37th nationally
- Over \$1 billion of additional investment was needed to reach the 3% benchmark in 2014
- Approximately 65% of Maine's 2014 total R&D spending was from the private sector, ranking 32nd nationally and trailing the U.S. (83%), New England (83%), and EPSCoR state (73%) averages
- Maine's percentage of total R&D from the non-profit sector (13%) ranked second nationally, trailing only the District of Columbia, and well above the U.S. (1%), New England (4%), and EPSCoR state (1%) averages

Why It Matters: Investment in R&D supports innovation, which ultimately generates approximately 80% of all economic growth. R&D investment supports new businesses and products, as well as efficiency improvements that enable Maine businesses to compete nationally and internationally. Finding an appropriate mechanism to provide sufficient funds and resources for R&D; leveraging public, non-profit, and university and college efforts to stimulate investment by Maine businesses; and ensuring that our R&D activities generate meaningful economic activity are vital to Maine's economy. Focusing on Maine business and industry and the growth and expansion of R&D and innovation-oriented private sector companies, offers the potential for a high return on investment.

For more information on R&D and innovation in Maine, see the *Maine Innovation Economy Action Plan* at mainetechnology.org. Released in early 2017, the Plan sets forth a goal for the State of Maine to continue to diversify its economic strategy and strengthen its innovation-based economy through a three-pronged approach of growing R&D capacity, increasing human capital, and cultivating entrepreneurship and innovation within enterprises.

Related Indicators: Gross Domestic Product, Per Capita Personal Income, Value Added per Worker, Startup Activity, Fourth Grade Reading Scores, Eighth Grade Math Scores, Postsecondary Educational Attainment

7 - International Exports



Maine's Exports Increase While
U.S. Numbers Decline



INTERNATIONAL EXPORTS 2007-2016



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

Source:
Maine International Trade Center

Background: This indicator tracks total Maine and U.S. exports indexed to 2007. The total numbers understate Maine's performance, as Maine's semiconductor exports are under-counted due to concerns with the sector's data.

What the Data Shows:

- Maine's international sales grew by nearly 5% from 2015 to 2016, while U.S. exports declined by -3.3%
- Maine's 2015-2016 growth was second-best among the New England states and ranked 8th nationally
- From 2015 to 2016, Maine saw a 27% increase in lobster and seafood exports, significant growth from the aerospace and defense industries, and solid performances from a number of other industries and products
- In total, Maine sold \$2.9 billion to 175 international markets in 2016
- Canada remained Maine's largest trading partner, with the remaining top markets a mix of the major East Asian destinations (China, Korea, Japan), the European Union, and Mexico
- Seafood, led by Maine's lobster shippers and processors, continued to be the state's largest export commodity at \$565 million, a record-setting performance for the industry

- From 2015 to 2016, Maine lobster exports to China tripled and exports to other Asian markets grew by approximately 75%
- Although low world pulp prices and loss of production due to mill closures caused a 15% decline from 2015 to 2016, forest products remained Maine's largest export industry, with sales of wood, pulp, paper, and lumber totalling an aggregated \$626 million

Why It Matters: International trade and investment continues to be a vital part of the state's economic performance. Foreign countries represent important markets for Maine products. Approximately 32,000 Maine workers are employed by a company with foreign ownership, including Hannaford, McCain, Irving, and TD Bank. Over 2,000 Maine companies participated in some kind of international transaction in 2016 and jobs related to trade account for about a quarter of the state's workforce. The Maine International Trade Center continues to be an important resource, connecting Maine companies to international markets.

Related Indicators: Gross Domestic Product, Per Capita Personal Income, Value Added per Worker, Broadband Connectivity, Startup Activity, Postsecondary Educational Attainment, Sustainable Forest Lands



8 - Broadband Connectivity

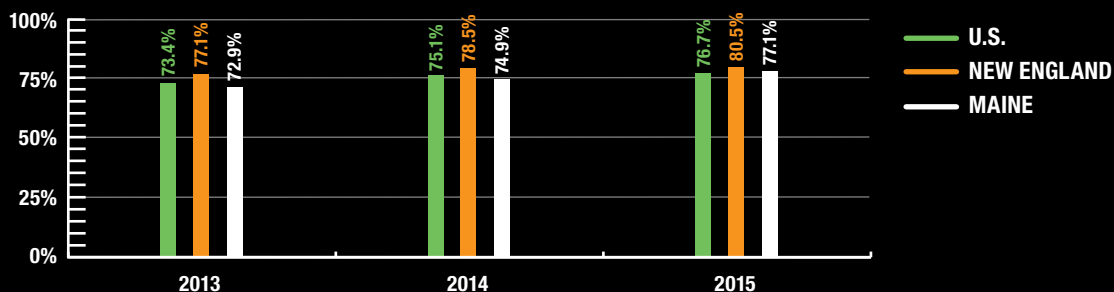


Continued Improvement Needed on Maine Broadband Connectivity

Benchmark: Maine will meet or exceed the U.S. percentage of households with a broadband internet subscription through 2020

Source: American Community Survey

PERCENTAGE OF HOUSEHOLDS WITH A BROADBAND INTERNET SUBSCRIPTION 2013-2015



Background: The data set tracks the percentage of households with a broadband internet connection in Maine, New England, and the U.S. This data is both reflective of our current status and an important measure of progress in the years ahead. A broadband subscription is defined as a DSL, cable, fiberoptic, mobile broadband, satellite, or fixed broadband subscription.

What the Data Shows:

- Maine continues to improve and moved slightly ahead of the U.S. average in 2015, with both trailing the New England rate
- According to the ConnectME Authority, Maine is roughly on par with the U.S. average in the percentage of homes and businesses with access to the lower tiers of upload and download speeds, but falls well short in the higher tiers
- Approximately 15% of homes in both Maine and the U.S. do not have broadband that meets the Federal Communications Commission's standard of 25 Mb upload/3 Mb download capacity
- According to the ConnectME Authority, approximately 55% of Maine and 53% of U.S. businesses do not have a website

Why It Matters: The internet is increasingly becoming the way in which people and businesses connect to each other and the world beyond, while also providing access to a wide range of products and services. Adequate broadband access bridges distances, connecting businesses to customers and clients, students to educational opportunities, and patients to health care providers. Access to broadband is also becoming a consideration for potential homeowners.

Providing adequate access can be a challenge in a large, rural state like Maine. Certain businesses and individuals may require particularly high upload or download speeds. Even areas in southern and coastal

Maine do not have adequate bandwidth or lack access altogether, and private providers may not find it cost effective to offer services in low density areas. Providing education to Maine people and businesses about the benefits of and options for internet access may increase demand, offering more certainty for providers and ultimately improving Maine's numbers.

Meaningful improvement may require a significant policy change or public sector investment. Some Maine municipalities have developed their own broadband networks, and others are exploring their options for doing so. Maine policymakers will need to be mindful of these developments, and the ever-changing technology and speed requirements, to address this issue efficiently and effectively.

Related Indicators: Gross Domestic Product, Per Capita Personal Income, Value Added per Worker, Employment, Research and Development Expenditures, International Exports, Startup Activity, Cost of Doing Business, Cost of Health Care

Broadband Access, New England States, 2015

	Percent	National Rank
New Hampshire	84.5%	1
Massachusetts	82.6%	5
Connecticut	82.0%	7
Vermont	78.7%	15
Rhode Island	78.2%	17
Maine	77.1%	24

Source: American Community Survey

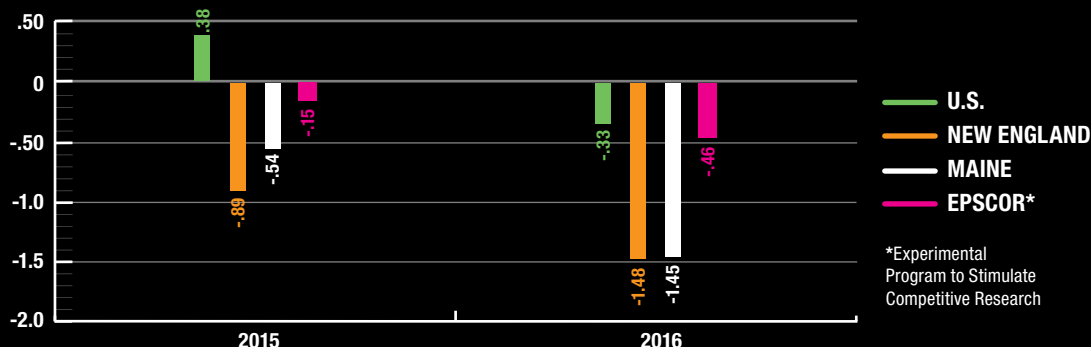
9 - Startup Activity



Startup Activity Important to
Generating Growth in Economy



STARTUP ACTIVITY INDEX 2015-2016



Benchmark:
Maine will meet
or exceed the
U.S. startup
activity rate
through 2020

Source:
Camoin
Associates,
Kauffman
Foundation

Background: The Startup Activity Index was developed by the Kauffman Foundation in 2014 and is comprised of three equally weighted component measures of startup activity: the opportunity share of new entrepreneurs, calculated as the percentage of new entrepreneurs driven primarily by opportunity versus necessity (unemployment); startup density, measured as the number of employers by population; and, the rate of new entrepreneurs, calculated as the percentage of adults becoming entrepreneurs in a given month. The Startup Activity Index provides a picture of entrepreneurial activity in the economy. A higher number on the scale represents better performance.

What the Data Shows:

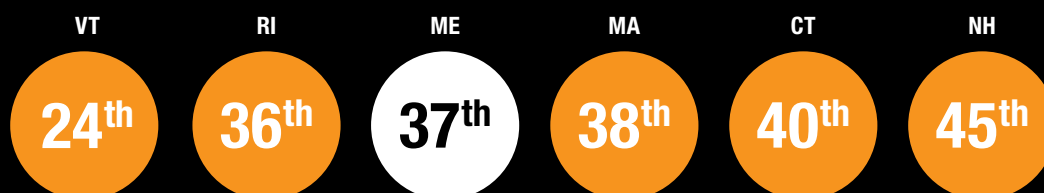
- Maine's overall index declined from -0.54 (ranked 23rd nationally) in 2015 to -1.45 in 2016 (ranked 37th)
- From 2015 to 2016, Maine's rate of new entrepreneurs was even at 0.29%, the opportunity share of new entrepreneurs declined from 80.4% to 77.7%, and startup density declined from 133.8 to 60.7 (a number of other states also saw significant declines)

Why It Matters: Business creation is a vital activity in today's economy. Entrepreneurship provides new and expanded opportunities for Mainers and creates jobs and economic activity. Understanding the needs of diverse businesses at a variety of stages of development and providing access to resources and a supportive environment, can foster business creation and help businesses with growth potential take the next step.

The *Maine Innovation Economy Action Plan*, released in early 2017, includes the continuing development and cultivation of the education, mentoring, financial, and cultural supports for the successful emergence and growth of entrepreneurial innovative enterprises as a key to diversifying the economy and strengthening our innovation-based economy. Maine has a number of organizations and initiatives in place, including Maine Technology Institute, Maine International Trade Center, University of Maine Innovation Engineering Program, University of Maine System's Cooperative Extension, New Ventures Maine, Maine Accelerates Growth, Maine Center for Entrepreneurial Development, and Maine Startup and Create Week.

Related Indicators: Gross Domestic Product, Per Capita Personal Income, Employment, Research and Development Expenditures, Fourth Grade Reading Scores, Eighth Grade Math Scores, Postsecondary Educational Attainment, Working Age Population

NEW ENGLAND STATES 2016



#1 rank denotes highest startup activity



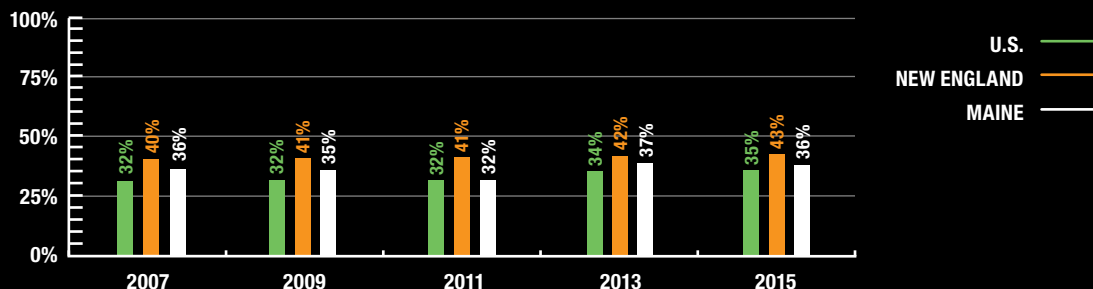
10 - Fourth Grade Reading Scores



Early Childhood Development Vital to Future Success for Maine

Benchmark: The percentage of Maine students scoring proficient and above on the National Assessment of Educational Progress (NAEP) will reach 50% by 2020

4th GRADERS SCORING PROFICIENT OR ABOVE 2007-2015



Source: National Center for Education Statistics, NAEP

Background: The NAEP is the largest nationally representative and continuing assessment of America's students. Assessments are administered uniformly nationwide, allowing for state-to-state comparisons and analysis of long-term trends. Students are assessed at critical periods of learning (grades 4, 8, and 12). The indicator compares the percentage of Maine, New England, and U.S. fourth graders scoring proficient or better, with proficient defined as competency over challenging subject matter, application to real-world problems, and appropriate analytical skills.

What the Data Shows:

- As the NAEP is a biennial assessment, 2015 data is the latest available
- In 2015, Maine's percentage of students scoring proficient and above ranked 29th nationally, trailing Massachusetts at 50% (1st), New Hampshire at 46% (2nd), Vermont at 45% (3rd), Connecticut at 43% (4th), and Rhode Island at 40% (12th)
- Since 2007, approximately one-third of Maine and U.S. fourth graders have tested at proficient and above levels, trailing the New England average

Why It Matters: Fourth grade is when students should transition from "learning to read" to "reading to learn." Students who struggle with reading at this age are likely to have difficulty with learning in the years ahead. Fourth grade reading scores reflect early

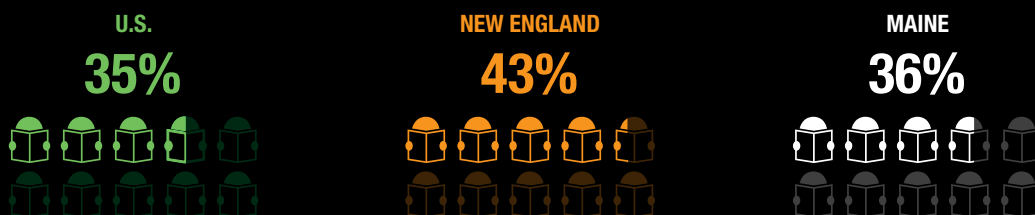
childhood development and are an indicator of future outcomes. Investment in early childhood education can help lay the foundation for improved performance in elementary and secondary school, higher college attendance and completion rates, higher productivity and incomes, and reduced social costs such as remediation, criminal justice, health care, and welfare.

Maine is consistently falling short of the benchmark despite increasing educational expenditures (from \$1.96 billion in the 2006-2007 academic year to \$2.26 billion in 2014-2015) and declining K-12 enrollment (from 197,194 in the 2006-2007 academic year to 176,203 in 2015-2016). Education accounts for a significant portion of state and municipal budgets. Ensuring that our educational system maximizes the return on this investment is vital to providing a positive future for our children and our state.

For further information on early childhood education, see *Making Maine Work: Investment In Early Childhood = Real Economic Development* (available at www.mdf.org), the Maine Children's Alliance's Kids Count Project at www.datacenter.kidscount.org/data#ME, and *A Strong Foundation for Maine* by Educate Maine and the Maine State Chamber of Commerce at www.educatemaine.org/research-reports.

Related Indicators: Per Capita Personal Income, Gross Domestic Product, Value Added per Worker, Employment, Eighth Grade Math Scores, Postsecondary Educational Attainment, Working Age Population, Wellness and Prevention, Food Insecurity

4th GRADERS SCORING PROFICIENT OR ABOVE IN 2015



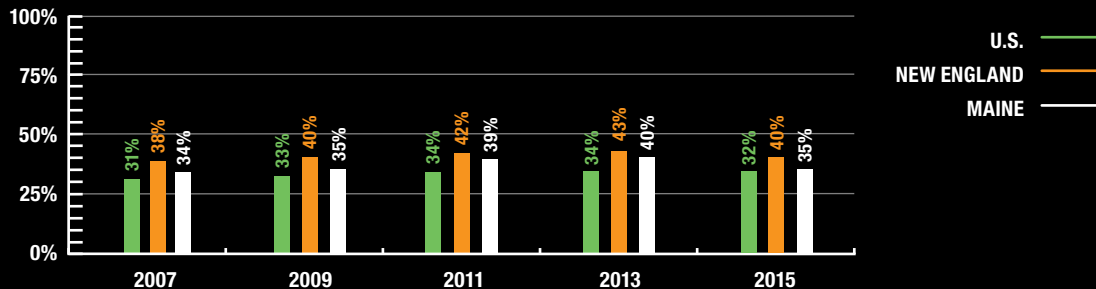
11 - Eighth Grade Math Scores



Improvement Needed to Help
Maine Students and Economy



8th GRADERS SCORING PROFICIENT OR ABOVE 2007-2015



Benchmark:
The percentage of Maine students scoring proficient and above on the National Assessment of Educational Progress (NAEP) will reach 50% by 2020

Background: The NAEP is the largest nationally representative and continuing assessment of America's students. Assessments are administered uniformly nationwide, allowing for state-to-state comparisons and analysis of long-term trends. Students are assessed at critical periods of learning (grades 4, 8, and 12). The indicator compares the percentage of Maine, New England, and U.S. eighth graders scoring proficient or better, with proficient defined as competency over challenging subject matter, application to real-world problems, and appropriate analytical skills.

What the Data Shows:

- As the NAEP is a biennial assessment, 2015 data is the latest available
- The percentage of eighth graders scoring proficient and above declined in 2015 in Maine, the U.S., and New England after all had seen steady improvement in recent years
- Maine has consistently exceeded the U.S. average and trailed the New England average
- Among the New England states, Massachusetts had the highest percentage of students scoring proficient and above with 51% (ranked 1st nationally), followed by New Hampshire at 46% (3rd), Vermont at 42% (5th), Connecticut at 36% (16th), Maine at 35% (19th), and Rhode Island at 32% (30th)

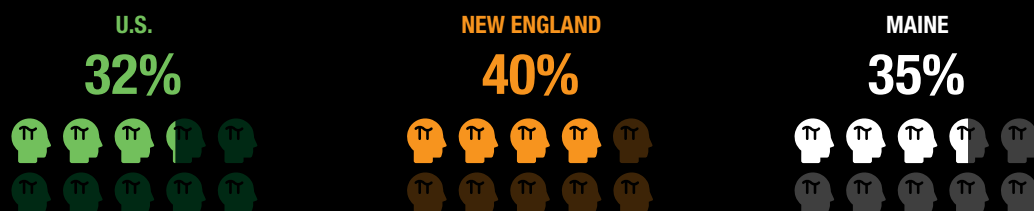
Why It Matters: Maine's NAEP scores have remained steady despite the declining K-12 enrollment and increasing education expenditures noted in the Fourth Grade Reading Scores indicator. Eighth grade math scores reflect competency in algebra, a foundational skill for success in today's society and work environment. Students who are proficient in math tend to be better prepared for college and require fewer remedial math classes.

Eighth grade math scores have been cited as an indicator of Maine's future success in innovation, research and development, and science, technology, engineering, and math (STEM) fields, which are expected to grow in the years ahead. A 2010 report by the Educational Development Center projected that one in seven new Maine jobs would be in STEM-related fields, and that wages for these jobs would be 58% higher than for other occupations in Maine. Alleviating foundational issues such as poverty and food insecurity, and continued investment and improvement in early childhood and K-12 education, can help improve Maine's performance and prepare our young people for success.

Related Indicators: Per Capita Personal Income, Gross Domestic Product, Value Added per Worker, Employment, Poverty, Fourth Grade Reading Scores, Postsecondary Educational Attainment, Wellness and Prevention, Food Insecurity

Source:
National Center for Education Statistics, NAEP

8th GRADERS SCORING PROFICIENT OR ABOVE IN 2015





12 - Postsecondary Educational Attainment

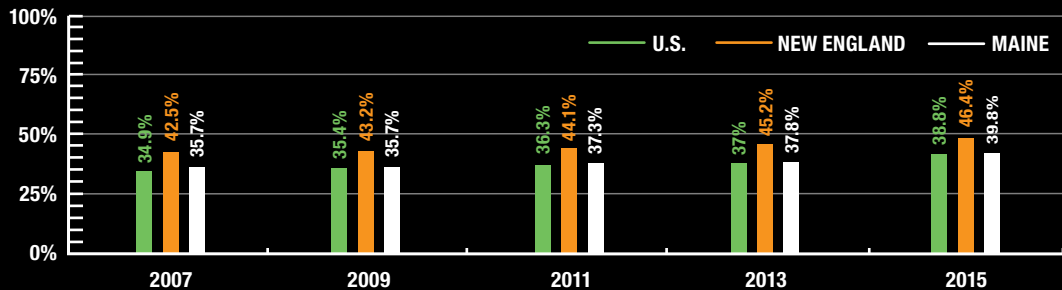


Improving Postsecondary Educational Attainment A Top Priority

Benchmark: The percentage of Maine residents 25 and over with a postsecondary degree will improve to at least the New England average by 2020

Source: U.S. Census Bureau, American Community Survey

POSTSECONDARY DEGREE ATTAINMENT AMONG RESIDENTS 25 AND OVER 2007-2015



Background: The indicator compares the percentage of residents 25 and over who have attained a postsecondary degree (associate's, bachelor's, or graduate or professional) in Maine, the U.S., and New England. While postsecondary educational attainment comes in a variety of forms, reliable time series data that allows comparisons across geographies is currently only available for degrees.

What the Data Shows:

- Maine has moved ahead of the U.S. average while both continue to trail the New England rate
- Maine has seen improvement at every degree level from 2010 to 2015: from 9% to 9.7% for associate's degrees, from 17.3% to 19.5% for bachelor's degrees, and from 9.5% to 10.6% for graduate or professional degrees
- Maine has a higher rate of associate's degrees, and a lower rate of graduate and professional degrees, than the U.S. and New England
- In 2015, median earnings for Mainers with graduate and professional degrees were \$54,528; with bachelor's degrees, \$41,214; with some college or associate's degrees, \$32,010; with high school diplomas, \$27,259; and with less than high school diplomas, \$20,130

Why It Matters: Education is one of the surest and most cost-effective ways to improve the lives of people and grow the economy. Increased education reduces unemployment and social spending, while improving productivity, earnings, workforce participation, and tax revenue. As jobs throughout the economy require additional skill and education, an educated population helps employers find the workers they need to succeed.

Unfortunately, Maine's young students experience a "funnel effect" along the educational ladder. Of 100 Maine students entering ninth grade, 88 graduate from high school, 55 enroll in a two or four-year college, and 31 graduate from a two or four-year college. Helping students successfully transition along the educational

continuum is essential. Additionally, with our aging population, we need to engage both traditional students and adults, particularly the 200,000-plus Maine residents who have some college credit but have not completed a degree.

Degree attainment in itself is only part of the issue. The area of study affects job and earnings prospects. Professional certifications, licensures, workplace competencies, and digital badging can provide valuable skills and are growing in importance. Apprenticeships, currently most common in the construction industry, are expanding to include opportunities in high-growth industries. The Lumina Foundation estimates that 2% of working-age Mainers have a high-quality certificate as their highest earned credential.

A coalition of key Maine business, education, and nonprofit leaders has adopted a goal of 60% of Maine's workforce having a postsecondary degree or certificate of value by 2025. A multi-faceted effort is needed to achieve this goal. We also need to ensure that training and education programs provide Maine people with the knowledge and tools to succeed in the current and future economy. Helping students and potential students of all ages to make informed decisions about their educational and career paths can help them match their interests and aptitudes with current and future opportunities.

For further information, see the Maine Development Foundation and Maine State Chamber of Commerce's *Making Maine Work: Preparing Maine's Workforce* at www.mdf.org and Educate Maine's *Education Indicators for Maine* at www.educatemaine.org.

Related Indicators: Per Capita Personal Income, Gross Domestic Product, Value Added per Worker, Employment, Poverty, Research and Development Expenditures, Startup Activity, Fourth Grade Reading Scores, Eighth Grade Math Scores, Working Age Population, Cost of Doing Business, State and Local Tax Burden, Food Insecurity

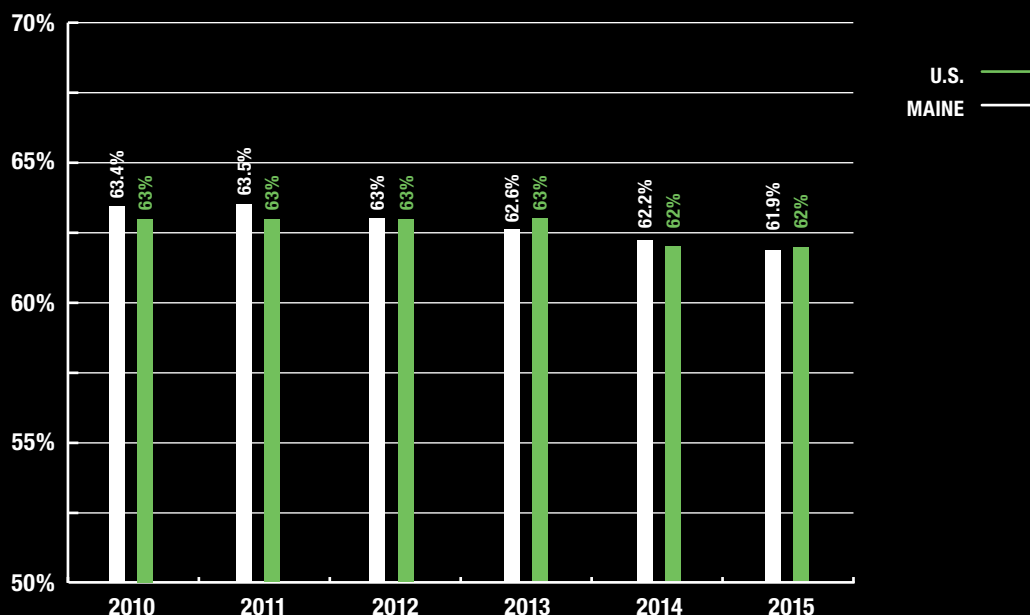
13 - Working Age Population



Declining Working Age Population a Major Challenge for Maine's Economy



WORKING AGE POPULATION (18 TO 64) 2010-2015



Benchmark:
The percentage of Maine residents age 18 to 64 will remain steady or improve relative to the U.S. percentage through 2025

Source:
U.S. Census Bureau Population Estimates

Background: This data set tracks the percentage of the total Maine and U.S. populations from age 18 to 64, which are considered the prime working years. It replaces the former Workforce data set due to concerns about the reliability of that data.

What the Data Shows:

- Maine's age 18 to 64 population declined by 1.5 percentage points (from 842,300 to 822,400) from 2010 to 2015, while the U.S. percentage declined by 0.8 percentage points

Why It Matters: The aging of Maine's population has a number of far-reaching impacts. Businesses cite an abundance of skilled and educated workers as a major factor in their relocation and expansion decisions. A smaller working-age population makes it more difficult for employers to fill current and future vacancies. Approximately 200,000 Maine workers will reach traditional retirement age in the near future. If current trends continue, replacing their numbers, talent, and experience, let alone providing the workers needed to grow our economy, will be a serious challenge. Employers in all economic sectors and throughout the state are having difficulties, but the challenge is especially acute in certain regions and economic sectors. Our aging population also means declining student populations and declining numbers for civic institutions and essential services.

The number of deaths in Maine first exceeded the number of births in 2011, and the pattern is expected to continue over the next several years. A high percentage of our population is now in their 50s and 60s, and past child-bearing age, while our share of young people is below the U.S. average. This means that we will not be able to grow our population through natural change. With our relative lack of young people, improving the educational attainment of Maine's population will depend heavily on adult learners and those already in the workforce.

Improving our net migration, particularly among younger people, is vital to growing our working age population. Retaining more of our young people offers some help, but is not sufficient in itself, because not enough young people were born here. We will need an infusion of people, particularly young people, from beyond our borders to grow our working age population, and in turn help attract new businesses and enable existing businesses to thrive and grow.

These issues are further explored in *Making Maine Work: Growing Maine's Workforce* and *Maine's Labor Shortage: New Mainers and Diversity*, released by the Maine Development Foundation and Maine State Chamber of Commerce and available at www.mdf.org.

Related Indicators: Gross Domestic Product, Per Capita Personal Income, Value Added per Worker, Employment, Poverty, Fourth Grade Reading Scores, Eighth Grade Math Scores, Postsecondary Educational Attainment



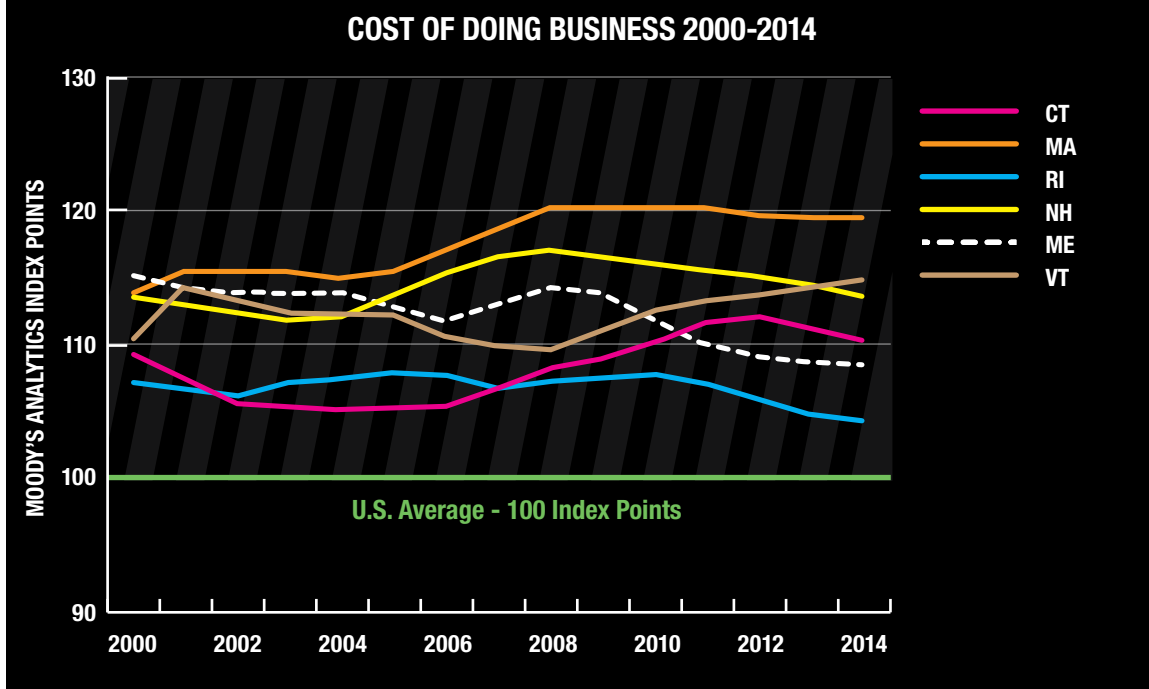
14 - Cost of Doing Business



Maine Making Progress but Remains Above National Average

Benchmark:
Maine's cost of doing business will decline to the U.S. average by 2020

Source:
Moody's Analytics



Background: The Moody's Analytics Cost of Doing Business index is a weighted scale of labor costs (wages, benefits, and productivity), industrial and commercial electricity costs, and state and local tax burden. Maine's labor costs are weighted at 73%, energy costs at 17%, and taxes at 10%.

What the Data Shows:

- Maine's overall cost of doing business was essentially unchanged from 2013 (108.7) to 2014 (108.5), as were Maine's unit labor cost (105.1 to 105.2), energy (120.6 to 119), and tax burden (115 in both years)
- Maine's overall cost of doing business has declined from 115.2 (2nd highest nationally) in 2000 to 108.5 (10th highest) in 2014
- Maine's 2014 cost of doing business was higher than Rhode Island (104.4) but lower than Massachusetts (119.5), Vermont (114.9), New Hampshire (113.7), and Connecticut (110.4)

Why It Matters: The New England region as a whole is an expensive place to do business. While Maine compares favorably within the region and has made progress in bringing our relative costs down in recent decades, we still have the 10th highest rate in the nation. Maine competes at the national and international level in attracting and growing businesses, which weigh the relative cost of doing business heavily in their decisions.

The unit labor cost index measures labor costs relative to output. As a result, Connecticut's high per capita

incomes are partially offset by very high productivity, and the state's unit labor costs are slightly above the U.S. average and relatively low for New England. Continued growth in productivity can help Maine improve its overall ranking. Managing our health care and energy costs and reducing our tax burden also makes it easier for Maine businesses to succeed and helps make Maine a more attractive destination for those looking to locate or start a business. The changes in recent years to Maine's income, sales, and estate taxes, including the 3% surcharge on incomes over \$200,000 passed by referendum in 2016, are likely to be seen in the years ahead. The index does not measure regulatory environment, but clear and consistent regulations and process can help make it easier to do business in the state.

Related Indicators: Gross Domestic Product, Per Capita Personal Income, Value Added per Worker, Employment, Poverty, Cost of Energy, Cost of Health Care, State and Local Tax Burden

New England Ranks by Indexes, 2014 (1 is highest cost)

	Overall Rank	Unit Labor Rank	Cost of Energy Rank	Tax Burden Rank
MA	2	1	4	24
VT	3	7	6	6
NH	6	3	5	47
CT	9	28	3	11
ME	10	13	11	3
RI	15	35	8	10

Source: Moody's Analytics

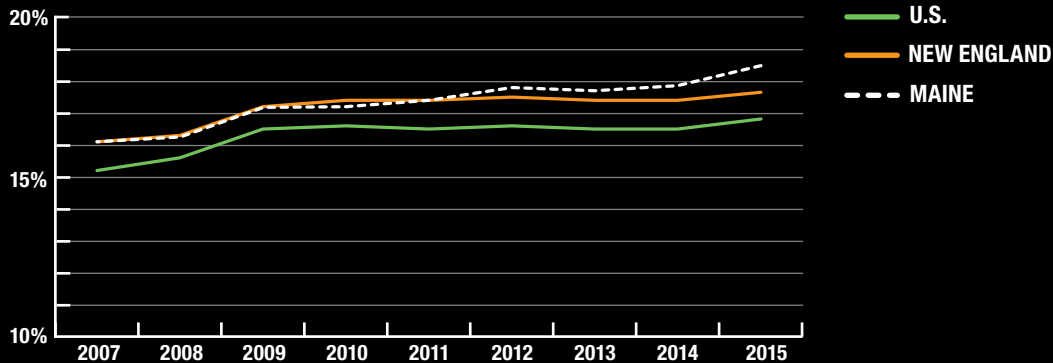
15 - Cost of Health Care



Growing Health Care Costs a Continuing Challenge for Maine



HEALTH CARE EXPENDITURES AS PERCENTAGE OF TOTAL PERSONAL EXPENDITURES 2007-2015



Benchmark: Maine's health care spending as a percentage of total personal expenditures will decline to the New England average by 2020

Source: Bureau of Economic Analysis

Background: The Bureau of Economic Analysis' Personal Consumption Expenditures by state divides total personal expenditures into a number of major categories, including health care. The chart shows the aggregate percentage of total personal expenditures devoted to health care in Maine, New England, and the U.S.

What the Data Shows:

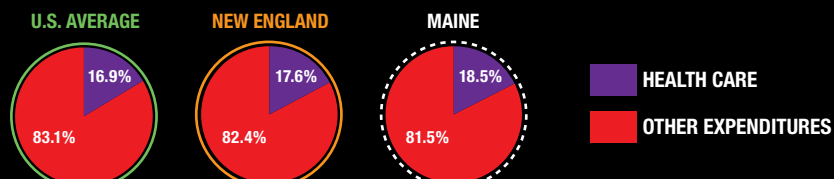
- Maine's percentage of total personal expenditures devoted to health care has increased from approximately 16% in 2006 to 18.5% in 2015
- The Maine and New England percentages were approximately equal through 2011, but New England's has leveled out while Maine's has continued to increase
- Expenditures in Maine and New England have been consistently higher than the U.S. average, which increased from 15% in 2006 to nearly 17% in 2015

Why It Matters: The high cost of health care has consistently been identified as a major concern for Maine people and businesses. High health care costs make it difficult to attract people and businesses to the state. High costs can also discourage people from seeking needed preventive care, ultimately leading to increased spending later on and affecting health and productivity. The increasing number of high-deductible plans for employer-based insurance and new out-of-pocket costs for those who were previously uninsured or covered by MaineCare gaining insurance on the Marketplace have important effects for Maine people.

High costs for government-sponsored insurance programs can also crowd out funding for other needed services and investments. Additionally, although high costs for health services are a concern throughout the state, they vary widely by region. Maine can help control the rising cost of health care by improving cost transparency; helping consumers make informed decisions about their care and associated costs; improving access to preventive care; improving the quality and delivery of services; and encouraging healthy behaviors to improve the overall health and wellness of Maine people, such as lowering overweight and obesity rates.

Related Indicators: Gross Domestic Product, Employment, Poverty, Cost of Doing Business, Wellness and Prevention, Health Insurance Coverage, Food Insecurity

HEALTH CARE EXPENDITURES AS PERCENTAGE OF TOTAL PERSONAL EXPENDITURES 2015





16 - Cost of Energy

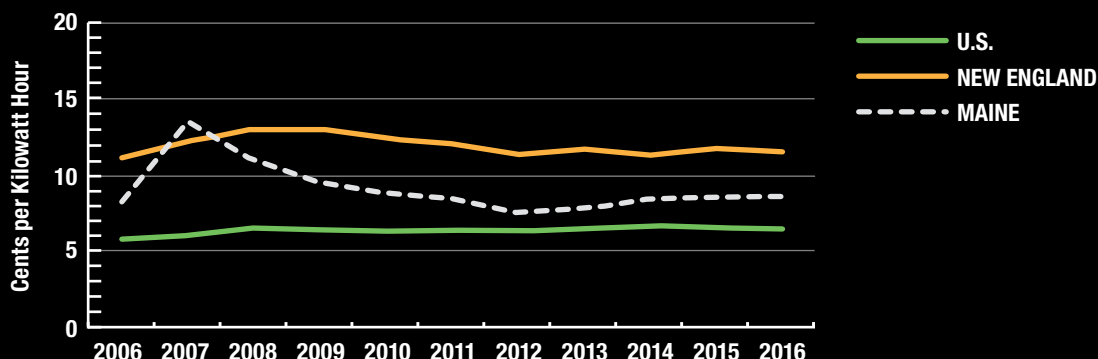


High Electricity Prices a Concern for Maine

Benchmark:
The cost of electricity in Maine will decline to the U.S. average by 2020

Source:
Energy Information Administration

INDUSTRIAL RETAIL ELECTRICITY PRICE 2006-2016



Background: The chart compares Maine, U.S., and New England industrial retail electricity prices, which is the average price of delivered electricity, measured in price per kilowatt hour.

What the Data Shows:

- Maine's electricity prices declined from 2007 to 2012 but have been increasing since then and stood at 9.03 industrial cents per kilowatt hour in 2016
- New England prices have fluctuated around 12 cents per kilowatt hour since 2012
- U.S. prices have generally been just under 7 cents per kilowatt hour since 2008

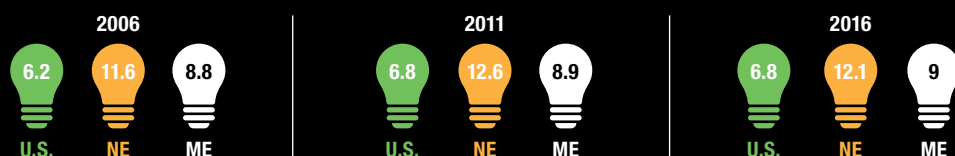
Why It Matters: The cost of electricity is a major operating cost for businesses and figures heavily into their location and expansion decisions. While Maine compares favorably to New England, the region's high costs relative to the rest of the U.S. are a disincentive for businesses, particularly those that use large amounts of energy. Maine has the most energy-intensive economy in New England and a small change

in the price of electricity translates into significant costs for many Maine businesses. High energy costs also affect the cost of living for individuals, leaving less money for other necessities and amenities. Although the indicator compares Maine to U.S. rates, Maine competes with Canadian provinces whose government-subsidized electricity generation results in lower costs.

New England's use of natural gas for electricity generation has grown from 15% in 2000 to 50% today. In 2015, two-thirds of Maine's net electricity generation came from renewable sources, primarily hydroelectric dams and biomass generators. The use of wood waste products for fuel adds another option and is important for Maine's forest economy and many rural communities. Continued diversification of our energy supply helps insulate against price spikes for a particular source, and improved efficiency can help control overall costs for businesses and individuals.

Related Indicators: Gross Domestic Product, Per Capita Personal Income, Value Added per Worker, Cost of Doing Business

INDUSTRIAL RETAIL ELECTRICITY PRICE TREND 2006-2016



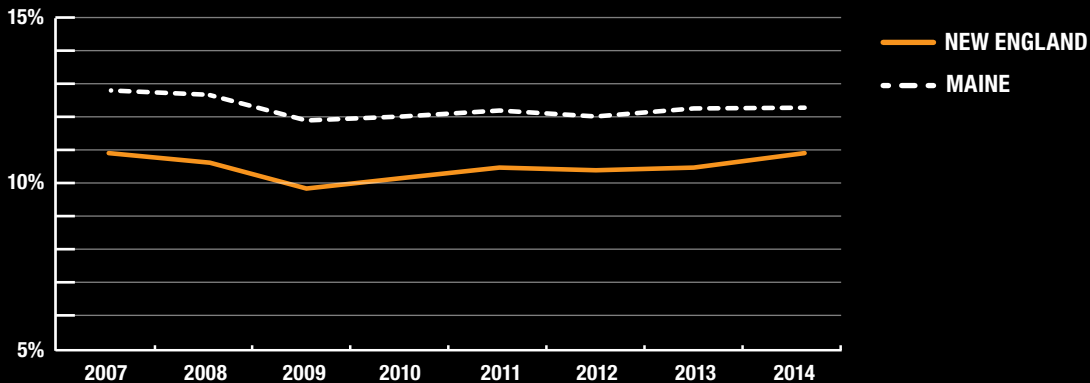
17 - State and Local Tax Burden



Maine's Tax Burden Holds Steady,
Remains Above New England Average



STATE AND LOCAL TAXES AS A PERCENT OF INCOME 2007-2014



Benchmark:
Maine's tax burden will decline and move toward the New England average each year through 2020

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

Background: The chart measures the percentage of every \$100 of income paid in state and local taxes (property, sales and gross receipts, individual income, corporate, motor vehicle license, and other taxes), by taxpayers in Maine and New England. This data reflects both the amount of taxes and the ability to pay. Per capita taxes compare the actual dollar amount of taxes paid across geographies.

What the Data Shows:

- Maine's tax burden has declined from approximately 13% in the mid-2000s to around 12% in recent years
- New England's tax burden has generally been between 10.5% and 11% during this time
- Relative to national and New England averages, Maine performs better on per capita taxes, which measures the amount of taxes paid per person, than on tax burden, which measures the ability to pay taxes

Why It Matters: Taxes both impose costs on businesses and individuals and generate revenue for public services and investments such as education, health care, and infrastructure that affect our quality of life and economy. Our tax burden can be lowered by reducing public spending, growing Maine's economy and incomes, or a combination of the two. Stability of revenues, impact on economic growth and job creation, ability to pay for investments, balance between state and municipal contributions,

and distribution of the burden between residents and non-residents are important considerations for policymakers. As the chart includes data through 2014, the changes in recent years to Maine's income, sales, and estate taxes, including the 3% surcharge on incomes over \$200,000 passed by referendum in 2016 will only be seen in the years ahead.

Related Indicators: Gross Domestic Product, Per Capita Personal Income, Value Added per Worker, Fourth Grade Reading Scores, Eighth Grade Math Scores, Postsecondary Educational Attainment, Cost of Doing Business

New England State and Local Taxes 2014 (1 is highest amount)

	Tax Burden	Tax Burden Rank	Per Capita	Per Capita Rank
U.S.	10.6%	N/A	\$4,680	N/A
NE	10.8%	N/A	\$5,519	N/A
CT	11.3%	14	\$7,255	4
ME	12.1%	5 (tie)	\$4,805	16
MA	10.6%	19	\$6,018	6
NH	8.4%	46 (tie)	\$4,325	24
RI	11.2%	15	\$5,172	14
VT	12.1%	5 (tie)	\$5,540	11

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

STATE AND LOCAL TAXES AS A PERCENT OF INCOME IN 2014

NEW ENGLAND

10.8%



MAINE

12.1%





18 - Transportation Infrastructure

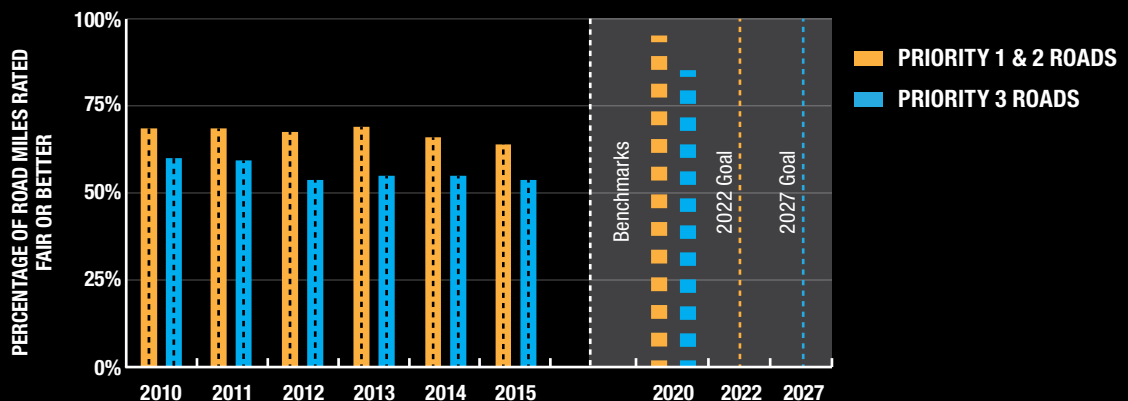


Significant Investment Needed to Meet Transportation Needs

Benchmark: 95% of priority one and two roads and 85% of priority three roads will meet a rating of fair or better by 2020

Source: Maine Department of Transportation

PRIORITY ROAD PERFORMANCE 2010-2027



Background: The Maine Department of Transportation (DOT) ranks roadways as priorities 1 through 6 based on functional classification, regional economic significance, truck use, and relative traffic volumes. Priority 1, 2, and 3 roadways, which include the interstate, arterials, and major collectors, make up 19% of Maine's public roads but carry 70% of passenger and freight traffic. Roadways are graded as excellent, good, fair, poor, or unacceptable based on road and bridge safety, condition, and service factors. Statutory goals are for all priority 1 and 2 roadways to be rated fair or better by 2022 and for all priority three roads to be rated fair or better by 2027. The Council's benchmarks are consistent with these goals. In 2014, approximately 110 miles were reclassified from Highway Corridor Priority 3 to Highway Corridor Priority 4. The changes are applied to all years' data to allow for year-to-year comparisons.

What the Data Shows:

- The percentage of priority 1 and 2 roads rated fair or better declined from 66% in 2014 to 64% in 2015 (the Council's target for 2015 was 81%)
- The percentage of priority 3 roads rated fair or better has declined from 60% in 2010 to 54% in 2015 (the Council's 2015 target was 74%)
- Transportation spending as a percentage of total state revenues has declined from roughly 25% in the 1970s to less than 10% now

Why It Matters: Maine's transportation network connects us to each other and the outside world. TRIP's 2016 *Maine Transportation by the Numbers* reports that \$89 billion in goods are shipped to and from sites in Maine annually, mostly by truck. Our roadways carry most of our passengers and freight. Poor roads can lead to unsafe conditions, personal injury, property damage, additional vehicle repairs, and extended commute times, resulting in lost productivity and personal time. In 2016, the American Society of Civil Engineers reported that

Maine motorists spend an additional \$1 billion annually in vehicle operating costs, congestion delays, and crashes due to the failure to meet customer service level goals.

Road maintenance and improvement costs have increased while revenues from fuel taxes, a major funding source, have declined with improved vehicle fuel efficiency. The Maine DOT reported an annual funding deficit of \$68 million in core highway and bridge programs in its 2016-2018 work plan, down from \$119 million in the 2015-2017 work plan, a calculation made possible largely by doubling assumed state bonding levels, and by modest increases in federal funding. Maine will ultimately have to identify new revenue streams to maintain an effective, efficient, and safe roadway network.

Investment in alternative modes can alleviate the burden on our roadways. Bike and pedestrian paths reduce traffic and encourage greater physical activity. Continued investment in ports can open new opportunities with regional and world markets. With ridership of nearly 474,000 passengers in 2016, the Amtrak Downeaster has transported 6.3 million passengers the equivalent of 500 million passenger miles since 2001.

Related Indicators: Gross Domestic Product, Per Capita Personal Income, Value Added per Worker, Broadband Connectivity, Cost of Doing Business, Cost of Energy, State and Local Tax Burden

Road Miles and Targets, 2010-2027

	2010	2011	2012	2013	2014	2015	2020	2022	2027
Priority 1 & 2 Actual	1601	1606	1577	1632	1563	1521	N/A	N/A	N/A
Priority 1 & 2 Projected	1601	1665	1729	1794	1858	1922	2243	2371	N/A
Priority 3 Actual	1187	1116	1012	1027	1043	1007	N/A	N/A	N/A
Priority 3 Projected	1187	1228	1269	1310	1351	1391	1596	1678	1882

Source: Maine Department of Transportation



COMMUNITY

LIVING, WORKING AND MOVING
FORWARD, TOGETHER.





19 - Housing Affordability

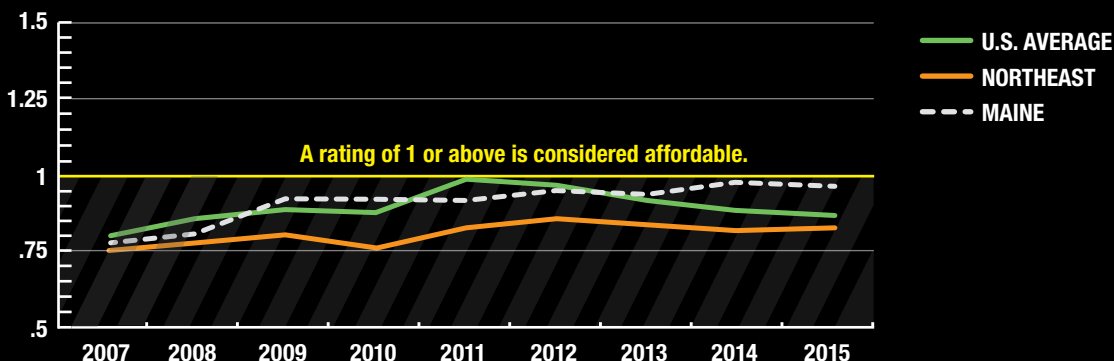


Housing Affordability An Advantage for Maine, but Regional Discrepancies Remain

Benchmark: Maine's housing affordability index will reach and maintain a level around 1 through 2020

Source: MaineHousing

HOUSING AFFORDABILITY 2007-2015



Background: This indicator presents the weighted average of MaineHousing's home-ownership affordability index (the ratio of the home price that a Maine household at median income can afford to the actual median home price) and rental affordability index (the ratio of the rent that a Maine renter household with median renter household income can afford to the actual average rent for a two-bedroom apartment, including utilities). The weighting is based on the relative numbers of homeowner and rental households. A higher index means that housing is more affordable.

What the Data Shows:

- Housing affordability in Maine has improved fairly steadily since 2007, reaching 0.99 in 2014 and 0.98 in 2015
- Maine's housing affordability has consistently exceeded the Northeast average, with a larger gap in the last few years
- Housing affordability has improved in Maine in recent years and declined in the U.S. as a whole
- Home ownership has generally become more affordable in Maine while tightening rental markets have made renting less affordable

Why It Matters: Maine's relatively low housing costs provide a competitive advantage over other Northeastern states in attracting and retaining people. The affordability of housing impacts our quality of life. When housing is affordable, people have more money to spend on other necessities and amenities. When a significant amount of earnings is devoted to housing expenses, people have less money to spend elsewhere.

While Maine's overall rate has improved, there are significant discrepancies within the state. Housing has consistently been more affordable in the central and rim counties and less affordable in southern and coastal areas. At the extreme, Cumberland County's 2015 index was 0.85, compared to Piscataquis County's 1.6. The median household income necessary to purchase a median priced home in 2015 was \$67,919 in Cumberland County and \$22,190 in Piscataquis County. With high housing costs in many of our job and service centers, people often find it difficult to live in the communities where they work. The increased commutes lead to additional transportation costs, demand on our infrastructure and impact on the environment, and take a toll on family and civic life.

Related Indicators: Gross Domestic Product, Per Capita Personal Income, Employment, Transportation Infrastructure, Air Quality, Water Quality

AVERAGES FOR 2015

	HOUSE COST AVERAGE	HOMEOWNER INCOME	RENT AVERAGE	RENTER'S INCOME
U.S.	\$223,900	\$55,775	\$959	\$35,863
Northeast	\$272,600	\$62,168	\$1,087	\$37,323
Maine	\$176,000	\$50,703	\$792	\$27,376

20 - Gender Income Disparity



Gender Income Gap Continues to Hinder Maine's Economy



WOMEN'S INCOME AS A PERCENTAGE OF MEN'S 2007-2015



Benchmark: Maine's median annual income for women working full-time will improve to 100% of the median annual income for men working full-time by 2020

Source: U.S. Census Bureau, American Community Survey

Background: This indicator compares the median annual incomes for women and men working full-time, full-year in Maine, New England, and the nation.

What the Data Shows:

- Maine women's earnings relative to men's peaked at \$0.83 per dollar in 2012 before declining to \$0.79 in 2015, essentially on par with the 2010 level
- The median annual income for women in Maine rose from \$36,153 in 2014 to \$36,972 in 2015 (+\$719), while men's earnings improved from \$45,856 in 2014 to \$46,866 in 2015 (+\$1,010)
- In 2015, women earned \$0.81 for every dollar earned by men in New England, and \$0.80 for every dollar earned by men in the U.S.

Why It Matters: The gender income disparity represents lost earnings for a significant number of Maine people. Nationwide, women have been estimated to earn approximately \$431,000 less than men over a 40-year career. Women are more likely to be single heads of households, and the earnings disparity makes it more difficult to provide for children and affects childhood poverty rates. Maximizing the contributions and earnings of women is an important part of improving the lives of people and growing our economy.

Factors such as age, race, education level, marital status, and occupation affect the level of disparity, but the overall pattern of women earning less than men persists throughout the labor market. Studies have found that, nationwide, women one year out of college working full-time were already earning less than their male counterparts. Women's choices of occupation and labor force participation account for some of the earnings gap, but much is also due to wage discrimination. The gap tends to be smaller at higher levels of education and in certain occupations, yet varies significantly across occupations with a high percentage of female employees or with comparatively high median earnings for women. Therefore, reducing the earnings gap requires a multi-faceted approach that limits occupational segregation, expands career choices for women, enforces equal employment laws, and eliminates workplace harassment and discrimination.

Related Indicators: Gross Domestic Product, Per Capita Personal Income, Value Added per Worker, Employment, Poverty, Postsecondary Educational Attainment, Wellness and Prevention, Food Insecurity

AVERAGE INCOME GAP IN 2015

U.S. AVERAGE

MEN
\$50,119

WOMEN
\$40,022

GAP
-\$10,097

MAINE

MEN
\$46,866

WOMEN
\$36,872

GAP
-\$9,994



21 - Wellness and Prevention

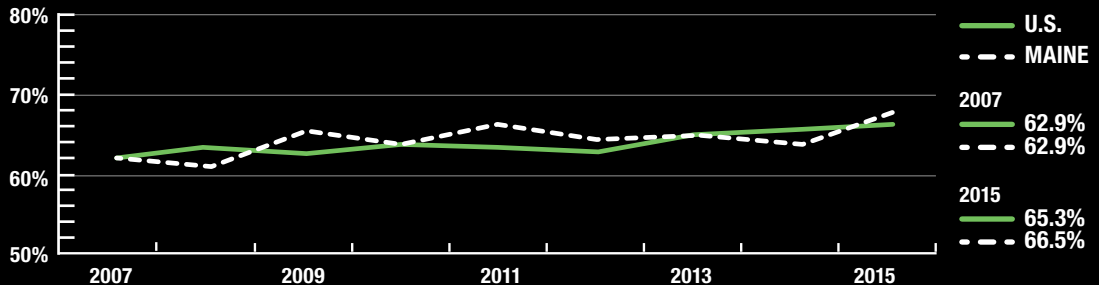


Rising Overweight and Obesity Rates a Concern for Mainers and Maine Economy

Benchmark: The combined percentage of overweight and obese adults in Maine will decline to 50% by 2020

Source: U.S. Center for Disease Control, Behavioral Risk Factor Surveillance System

PERCENTAGE OF OVERWEIGHT AND OBESE ADULTS 2007-2015



Background: The Behavioral Risk Factor Surveillance System (BRFSS) is the nation's premier system of health-related telephone surveys that collects state data about U.S. residents regarding their health-related risk behaviors, chronic health conditions, and use of preventive services. The survey includes the percentage of adults classified as overweight (Body Mass Index of 25.0 to 29.9) and obese (Body Mass Index greater than or equal to 30).

What the Data Shows:

- Approximately two-thirds of Maine (66.5%) and U.S. (65.3%) adults were overweight or obese in 2015
- From 2014 to 2015, Maine's combined overweight and obesity rate increased from 64.5% to 66.5%, while the U.S. rate was essentially even
- Since 1995, obesity rates in both Maine and the U.S. have essentially doubled, while overweight rates have been stable
- Approximately one-third of Maine children are typically considered overweight or obese and are more likely to experience issues with weight and associated health problems as adults

Why It Matters: Overweight and obesity rates are important indicators of our overall health status. Weight problems are the third leading cause of preventable deaths in Maine and the nation. The risk of chronic diseases such as diabetes, heart disease, stroke, high cholesterol, asthma, arthritis, and some

cancers increases with weight. Obesity is highly correlated with cardiovascular disease, asthma, hypertension, diabetes, and joint degeneration, which are being found at younger ages, particularly among those with low incomes.

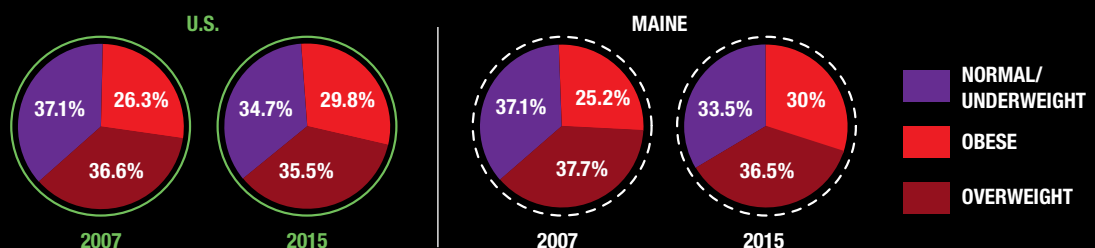
Maine's high overweight and obesity rates have been estimated to cause an additional \$767 million annually in medical expenses and \$2 billion annually in lost productivity. Improving access to healthy foods and encouraging healthy eating and active, healthy lifestyles can help control health care costs and improve productivity. Many employers are seeking to improve productivity and reduce health care costs through wellness and insurance programs that encourage healthy behaviors among their employees.

Related Indicators: Gross Domestic Product, Per Capita Personal Income, Value Added per Worker, Poverty, Cost of Doing Business, Cost of Health Care, Health Insurance Coverage, Food Insecurity

Percentage of Overweight and Obese Adults 1995-2015

	Obesity		Overweight	
	Maine	U.S.	Maine	U.S.
1995	14.1%	15.9%	37.6%	35.5%
2000	20%	20%	36.3%	36.7%
2005	22.7%	24.4%	36.9%	36.7%
2010	27.4%	27.5%	36.3%	36.2%
2015	30%	29.8%	36.5%	35.5%

TREND OF PEOPLE OVERWEIGHT OR OBESE IN 2007-2015



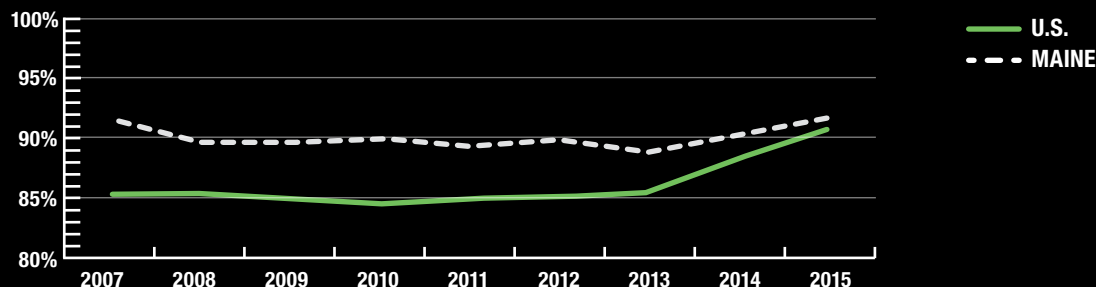
22 - Health Insurance Coverage



Maine's Health Insurance Coverage Improves, Remains Above U.S. Average



POPULATION WITH HEALTH INSURANCE COVERAGE 2007-2015



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

Source: U.S. Census Bureau

Background: This indicator compares the percentage of the total population in Maine and the U.S. with health insurance coverage.

What the Data Shows:

- Maine's coverage rate ranged from 89% to 90% from 2008 to 2014 and improved to 91.6% in 2015
- The U.S. average was approximately 85% from 2007 to 2013 before improving to 88.3% in 2014 and 90.6% in 2015
- From 2013 to 2014, the U.S. percentage of individuals covered by employer-provided health insurance rose from 48% to 49%, the percentage covered by Medicaid rose from 16% to 19%, the percentage covered by Medicare declined from 15% to 13%, and the uninsured population declined from 13% to 10%

Why It Matters: Widespread health insurance coverage provides greater access to health care services. Health insurance helps people establish a relationship with a provider and access preventive care that can help avoid more costly and disruptive procedures later on, helping people live healthier, more productive lives. Financing both public and private insurance programs is likely to be an even greater challenge in the years ahead as Maine's population ages and health care costs rise. Adding more quality jobs that offer health insurance to employees can help alleviate the burden on public insurance programs.

As of the end of the 2017 open enrollment period, over 79,000 Mainers, about 85% of whom qualified for subsidized coverage, enrolled in a health plan through the federal Affordable Care Act's Health Insurance Marketplace. Maine policymakers will need to be mindful of any developments at the federal level going forward.

Related Indicators: Gross Domestic Product, Per Capita Personal Income, Value Added per Worker, Employment, Cost of Doing Business, Cost of Health Care, Wellness and Prevention, Food Insecurity



23 - Food Insecurity

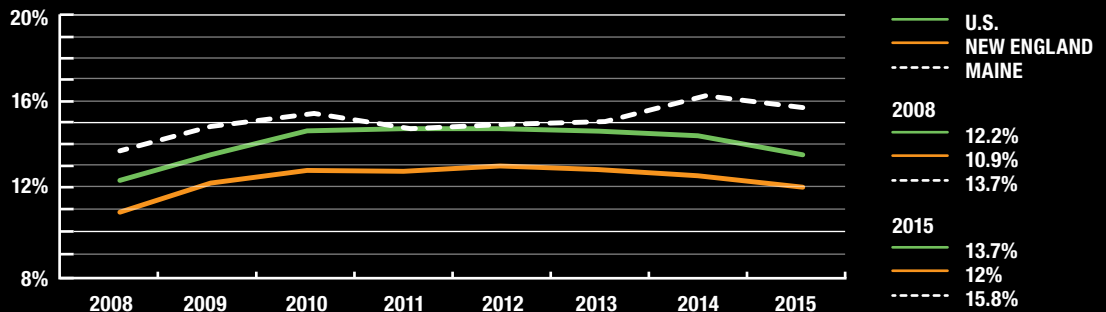


Access to Healthy Food Vital
to Maine People and Economy

Benchmark:
Maine's
percentage of
food insecure
households
will decline
to the U.S.
average by
2020

Source:
U.S. Department
of Agriculture
Economic
Research
Service

FOOD INSECURE HOUSEHOLDS 2008-2015 (3-YEAR MOVING AVERAGE)



Background: Food insecurity is measured annually by the U.S. Department of Agriculture Economic Research Service using U.S. Census data. Households with dependable access to enough food for active, healthy living are considered food secure, while those experiencing disrupted eating patterns, reduced food intake, and reduced quality or variety of diet are considered to be food insecure.

What the Data Shows:

- Maine's percentage of food insecure households has risen from 13.7% in 2008 to 15.8% in 2015 and remains above the New England and U.S. averages
- Maine ranked 5th nationally in 2013 with 7.1% of households experiencing very low food insecurity, and 3rd in both 2014 (7.5%) and 2015 (7.4%)
- According to Feeding America, approximately 203,000 Mainers, including nearly one in four children (23%), are facing hunger

Why It Matters: Food insecurity is a foundational indicator with long-term effects on Maine's people and economy. Hunger is often associated with poverty but is not limited to those living below the poverty line, and nationally is more strongly connected with unemployment. Among adults, food insecurity is associated with poor overall health status, obesity and weight gain, chronic disease, and mental health issues,

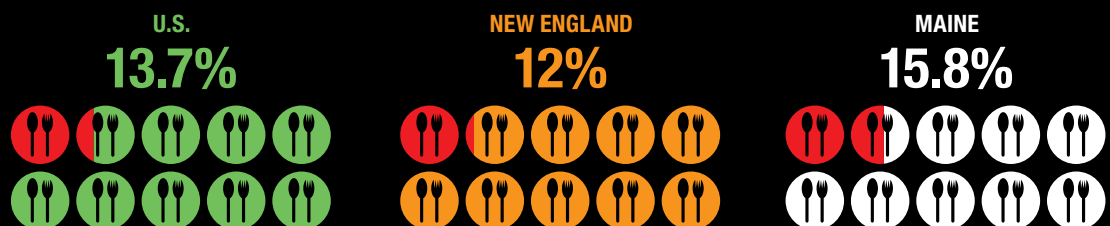
which can contribute to workforce challenges such as absenteeism and reduced productivity. The mental and physical problems associated with food insecurity are exacerbated among the older population.

Proper nutrition is critical to early childhood development. A lack of access to nutritious food can have serious effects on physical and mental health, academic achievement, and future economic prosperity of young children. Nationally, food insecurity has been estimated to cost \$167.5 billion annually in lost productivity, diminished educational outcomes, increased educational spending, avoidable health care costs, and the value of charity efforts. The total cost for Maine has been estimated to be \$787 million.

Eliminating "food deserts" where affordable and healthy food is difficult to obtain, supporting hunger prevention programs like Good Shepherd Food Bank, and increasing participation among eligible students in federal child nutrition programs are important to reducing food insecurity.

Related Indicators: Per Capita Personal Income, Gross Domestic Product, Value Added per Worker, Employment, Fourth Grade Reading Scores, Eighth Grade Math Scores, Postsecondary Educational Attainment, Cost of Health Care, Wellness and Prevention

FOOD INSECURE HOUSEHOLDS IN 2015





ENVIRONMENT BY LAND, LAKE, SEA AND STREAM.





24 - Air Quality



Improved Air Quality an Asset to Maine's Economy and Quality of Life

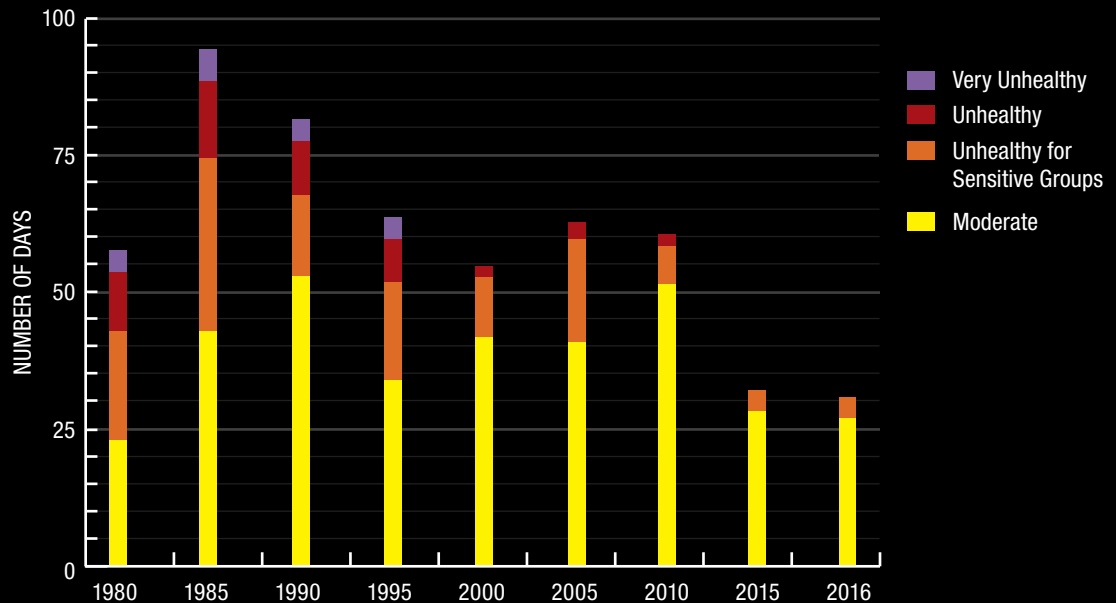
Benchmark:

The overall number of days classified as a health risk and the severity of the risk categories in Maine will be maintained through 2020

Source:

Maine Department of Environmental Protection

MAINE AIR QUALITY INDEX 1980-2016



Background: The air quality indicator is based on ozone levels averaged over an eight-hour period in parts per billion, as measured by a network of monitors recording concentrations of major pollutants throughout the state. The data is based on the number of times the maximum value in the state for each day falls into each air quality index category. The data reflects changes in the category levels based on a new ozone standard promulgated by the U.S. Environmental Protection Agency in October 2015.

A separate comparison is of Maine's statewide maximum eight-hour ozone design value to the national standard. The maximum eight-hour ozone design value measures the fourth highest daily maximum concentration averaged over three years. Maine's values were above 100 for much of the 1980s but have been at or below the previous national ambient air quality standard of 75 since 2010 and below the current air quality standard of 70 since 2015.

What the Data Shows:

- Maine's total classified days were considerably higher than current levels in the 1980s, 1990s, and 2000s, peaking at 96 in 1998
- Both the number and severity of unhealthy air quality days have declined in recent years, to a low of 29 total days (26 moderate, three unhealthy for sensitive groups) in 2014
- In 2016, 31 days were classified as a health risk (27 as moderate and four as unhealthy for sensitive groups)

Why It Matters: Maine's environmental quality makes the state an attractive place for people to live and visit, and is an important part of the Maine brand. Our high air quality speaks to our overall environmental quality. Given our location, Maine's air quality is subject to actions both inside and outside of our state. While potential changes in federal environmental regulations may have detrimental impacts on Maine's air quality going forward, our air is, on average, cleaner than the other Northeastern states and offers an advantage in attracting people and businesses, and affects our overall health status and cost of health care.

Related Indicators: Gross Domestic Product, International Exports, Working Age Population, Cost of Health Care, Wellness and Prevention, Water Quality, Sustainable Forest Lands

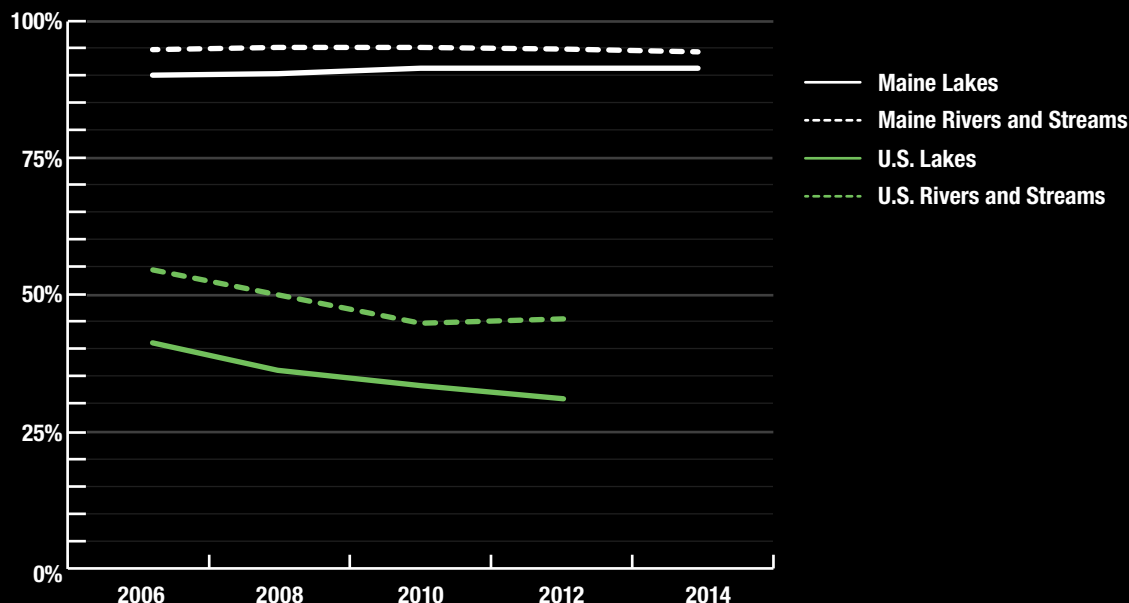
25 - Water Quality



Maine's Water Quality Far Exceeds U.S. Average



PERCENT OF CATEGORY 1 OR 2 WATER BODIES 2006-2014



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

Source:
Department of Environmental Protection, Bureau of Water Quality, and U.S. Environmental Protection Agency

Background: The chart compares water quality in Maine and the U.S. The Maine Department of Environmental Protection reports the water quality for Maine's rivers and streams and lakes and ponds to the U.S. Environmental Protection Agency (EPA) every two years. Maine's assessed waters are classified into five categories, with Category 1 waters attaining all designated uses and water quality standards, and Category 2 waters presumed to attain all uses and standards. Categories 1 and 2 are approximately equivalent to the EPA's "good" classification. Although 2014 EPA data is not available, national waters have consistently rated far below Maine levels.

What the Data Shows:

- Since 2006, approximately 95% of Maine's assessed rivers and streams mileage and 90% to 91% of Maine's assessed lake and pond acreage met the Category 1 or 2 standards
- From 2006 to 2012, the percentage of U.S. rivers and streams meeting the "good" standard dropped from 55% to 46%, and the percentage of U.S. lakes meeting the standard dropped from 42% to 31%

Why It Matters: Maine's rivers, lakes, and streams provide drinking water for Maine people and support our diverse ecosystems. The overall quality of Maine's natural environment is a key part of our state's identity, image, and brand. Our natural environment, including our water resources, helps to support a vibrant tourism economy and is frequently cited as a main reason that people and businesses stay in or relocate to our state. While Maine has a number of challenges, our environmental quality stands out as a key asset that provides benefits and opportunities for our people and economy.

Related Indicators: Gross Domestic Product, Value Added per Worker, International Exports, Working Age Population, Cost of Health Care, Wellness and Prevention, Air Quality, Sustainable Forest Lands



26 - Sustainable Forest Lands



Maine's Growth to Harvest Ratio Increasing as Markets Decline

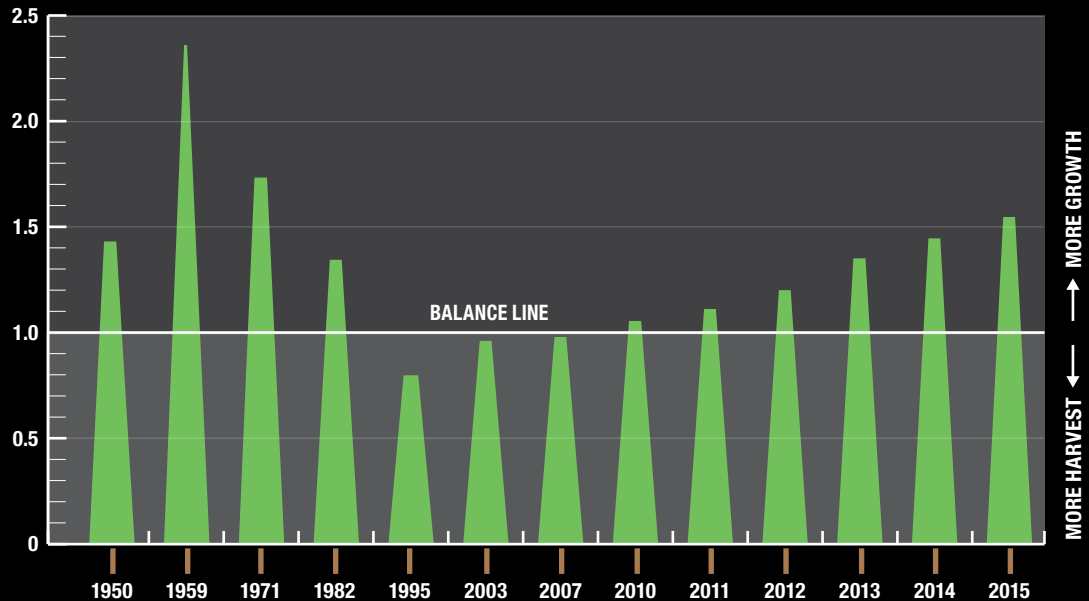
Benchmark:

A net growth to removals ratio of approximately 1:1 will be maintained over time

Source:

Maine Department of Agriculture, Conservation and Forestry

HISTORIC TREND IN THE NET GROWTH TO REMOVALS RATIO 1950-2015



Background: This indicator measures the rate of growth to harvest of Maine's forests. A net growth ratio value greater than one indicates that growth is greater than harvest, while a ratio value of less than one indicates that harvest exceeds growth. The ratio of net growth to removals peaked in 1959 at an unsustainable ratio of 2.37. A maturing forest, the spruce budworm epidemic, and harvest brought the ratio to an undesirable 0.81 in 1995. The ratio has since grown steadily, crossing the 1:1 balance point in 2008. Since 1990, the harvest of forest products (sawtimber, pulpwood, firewood, and biomass) has ranged from 13.5 to 16.7 Million Green Tons. Over this period, the mix and individual contribution of various species and products has shifted to meet market demands. Despite the historic high level of sustained harvest, the 2015 growing stock inventory has increased 12% since 1995, and at a current level of 23.4 Billion Cubic Feet, represents a decrease of 1% since 2013, but is still within the range of the 1982 apex of 24.1 Billion Cubic Feet.

What the Data Shows:

- Maine has consistently been near the benchmark over the years, but the growth to harvest ratio has been increasing in recent years, reaching 1.55:1 in 2015
- The increase in growth relative to harvest may be related to a reduction in certain wood fiber markets; the Council will continue to monitor developments going forward

Why It Matters: Maine's forests cover 89% of the state's land area, with 93% of this acreage actively managed by private landowners and much of that accessible to the public. Sustainable forestry supports Maine's economy, identity, and quality of life. Forests provide habitat for wildlife, offer a wide variety of recreational opportunities, help protect our air and water quality, and supply raw materials used to create products ranging from newspaper to alternative fuels.

The forest products industry has a long and proud heritage in Maine, and remains a significant economic driver in the state's economy, particularly in rural Maine. In 2016, the total economic impact of Maine's forest products industry is estimated at \$8.5 billion, with more than 33,000 jobs for Maine people. At the same time, rapid changes in the global market have led to the closure of five pulp and paper mills and two biomass electric facilities and related declines in forest manufacturing and harvesting. The result is that Maine has lost 50% of its softwood pulp market in the last two years. Maintaining the long-term balance between growth and removals is a key component in sustaining Maine's forests and their vital contribution to the state's economy.

Related Indicators: Gross Domestic Product, Employment, International Exports, Air Quality, Water Quality

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 and diverse 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, and Senator Andre Cushing, Senate District 10.

The annual *Measures of Growth* report is a widely used and respected report on Maine's economy. The report has been 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 Maine Economic Growth Council is administered by the Maine Development Foundation (MDF), a private, non-partisan membership organization created in statute in 1978 that drives sustainable, long-term economic growth for Maine. MDF Program Director Ryan Neale administers Council meetings and researches and writes the report. 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. Source data is 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. Despite these limitations, the overall trends and policy implications are unchanged.

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