

# Measures Of Growth In Focus



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

Twentieth Report of the Maine Economic Growth Council

Prepared by the Maine Development Foundation

# VISION

# A high quality of life for all Maine people.

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



## Prepared for the Maine Economic Growth Council by the Maine Development Foundation

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### **EXECUTIVE SUMMARY**

The Maine Economic Growth Council and Maine Development Foundation are pleased to present *Measures of Growth In Focus 2014.* This 20<sup>th</sup> annual report brings some changes in format and content. The narratives that accompany the indicators have been restructured, using bulleted lists and less text, to make them more useful and accessible. Indicators on Workforce and Food Insecurity have been added to highlight their importance in Maine, and the Population of Service Centers indicator has been removed.

The Growth Council does not add or remove indicators lightly. The Council fully explores and carefully weighs the importance of every indicator in this report, as well as other potential indicators, to ensure that only the most important and meaningful topics are included and that they are grounded in the best available data. The Council believes that making progress on these specific indicators will move Maine in a positive direction and that this report should serve as a guide for where we as a state should focus our collective attention and efforts.

Maine made progress toward the benchmark on eight indicators, lost ground on four indicators, and saw no significant movement on eleven indicators since the last available data. The Council assigns each indicator a benchmark that is both aspirational and attainable. As appropriate, Maine may be compared to U.S. and/or New England averages, or to itself over time. Progress on the benchmarks is determined each year by reviewing the most recent trend.

Additionally, Gold Stars are assigned to indicators showing exceptional performance and Red Flags are assigned to those needing attention. Three Gold Stars and five Red Flags were assigned this year.

The Growth Council is an independent body created in statute in 1993 to develop a long-term vision for Maine's economic growth and develop a broad range of indicators to assess our progress toward that vision. The Council's members represent business, labor, education, health care, non-profits, state government, and the Legislature and are jointly appointed by the Governor, Senate President, and Speaker of the House.

### THE NATURE OF DATA

The Maine Economic Growth Council strives to provide the most accurate and timely data in a manner that is useful for policymakers and opinion leaders. Although great care is taken to ensure its accuracy, there is an inherent level of uncertainty in the data. Source data is regularly revised as more information and improved methodologies become available. This report incorporates revisions to source data. Therefore, the data in this edition may be slightly revised from previous reports and more accurate. Despite these limitations, the trends and policy implications remain the same.

On the following pages is a brief summary of each indicator's performance relative to its benchmark. We hope you will read the whole report for the full story.

## **KEY TO SYMBOLS**

### **GOLD STARS & RED FLAGS**

Determining which performance measures receive Gold Stars and Red Flags are judgments made by members of the Maine Economic Growth Council. These determinations reflect consensus of the group and are based on consideration of the best data available and the experienced perspective of Growth Council members. Generally, criteria are as follows:

#### 🔶 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. In some cases, there is improvement, but it is still viewed as needing attention.

#### **PROGRESS SYMBOLS**

The progress symbols reflect movement toward or away from the benchmarks. The benchmarks are established by the Growth Council and progress is determined objectively each year by reviewing the most recent trends. The Growth Council does not use a uniform methodology in creating benchmarks. Criteria for applying the progress symbols are as follows:

- We have moved toward the benchmark since last available data.
- We have moved away from the benchmark since last available data.
- No significant movement either way since last available data.

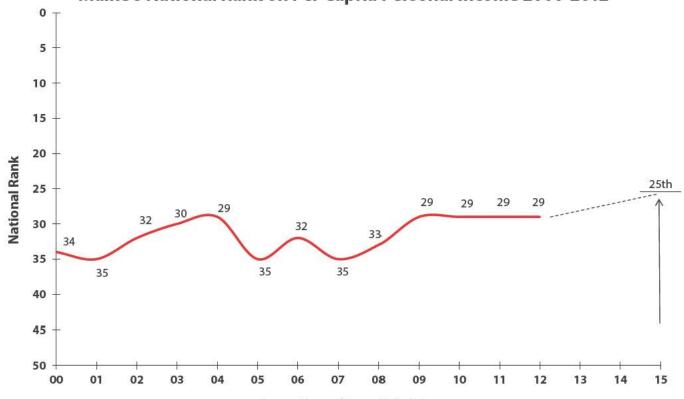
## ECONOMY

Pr	osperity	
⊜	1. Per Capita Personal Income Benchmark: Maine's national rank among the 50 states on per capita personal income will reach 25th by 2015	page 5 Data: Maine again ranked 29 <sup>th</sup> as per capita personal income grew from \$38,880 in 2011 to \$40,087 in 2012.
•	<b>2. Gross Domestic Product</b> <b>Benchmark:</b> Maine's GDP growth will outpace New England and the U.S.	page 7 Data: Maine's GDP growth from 2011 to 2012 was 0.5%, New England's 1.2%, and the U.S.'s 2.5%.
€	<b>3. Employment</b> <b>Benchmark:</b> Employment measured by the total number of jobs will increase each year	page 9 Data: Maine added 3,400 jobs from 2011 to 2012 and 3,600 from 2012 to 2013, growing to 601,700.
Bı	isiness Innovation	
•	<b>4. Research and Development Expenditures</b> <b>Benchmark:</b> Total R&D spending as a percent of GDP in Maine will increase to 3% by 2015	page 11 Data: Maine's total R&D spending remained at approximately 1% of GDP.
NO GRADE	<b>5. International Exports</b> <b>Benchmark:</b> Maine's international exports will grow faster than U.S. international exports	page 13 Data: On paper, Maine's exports fell to \$2.6 billion in 2013, which is understated due to a data anomaly in the semiconductor industry.
•	<b>6. High Speed Internet Subscribers</b> <b>Benchmark:</b> Maine will reach the New England level of high speed internet subscribers by 2015	page 15 Data: Maine grew by 87 subscribers per 1,000 residents but the gap between Maine and New England grew from 137 in 2011 to 151 in 2012.
⊜	7. New Business Starts Benchmark: The entrepreneurial index in Maine will reach 0.50% by 2015	page 16 Data: Maine was essentially level relative to the benchmark, at 0.36% in 2011 and 0.35% in 2012.
⊖	8. Productivity Benchmark: The value added per worker in Maine will increase to within 15% of the value added per worker in the U.S. by 2015	page 18 Data: The gap between Maine and the U.S. was 21% in 2011 and 22% in 2012.
Sk	illed and Educated Workers	
⊖	<b>9. Higher Degree Attainment</b> <b>Benchmark:</b> The percentage of Maine residents age 25 and over with a higher degree will increase to at least the New England average by 2020	page 19 Data: Maine's percentage was 37.3% in 2011 and 37.0% in 2012, while New England was 44.1% and 44.6%.
	10. Fourth Grade Reading Scores	page 21
Ð	<b>Benchmark:</b> Maine's share of students scoring proficient and above will reach 50% by 2015	<b>Data:</b> Maine's percentage increased from 32% in 2011 to 37% in 2013.

	11 Finkth Crade Math Searce	22
•	11. Eighth Grade Math Scores Benchmark: Maine's share of students scoring	page 23 Data: Maine's percentage increased from 39% in 2011 to a
	proficient and above will reach 50% by 2015	new high of 40% in 2013.
	12. Workforce (New indicator)	page 25
NEW	Benchmark: Maine's workforce will grow to 771,000	Data: Maine's workforce has grown to 709,000 in 2013, but
~	by 2020	if current demographic trends continue, we will lose 20,000 workers by 2020.
		workers by 2020.
$B\iota$	isiness Climate	
•	13. Cost of Doing Business	page 27
	Benchmark: The cost of doing business in Maine will	Data: Maine's cost of doing business declined from 109.1 in
	decrease to the U.S. average by 2015	2010 to 106.8 in 2011, the lowest since 1991.
	14. Cost of Health Care	page 28
NOGRADE	Benchmark: Maine health care costs as a percent of	Data: Current and reliable data that can be compared
NOGI	GDP will decline to the U.S. average by 2015	across geographies is lacking and urgently needed.
Ð	15. Cost of Energy	page 29
U	Benchmark: The cost of electricity in Maine will	Data: The gap between Maine and U.S. retail and
	decrease to the U.S. average by 2015	industrial electricity prices both declined by just under
		\$1.00 per million BTU from 2010 to 2011.
⊜	16. State and Local Tax Burden	page 31
	Benchmark: Maine's tax burden will decline and move	Data: According to U.S. Census Bureau figures, Maine's
	to the New England average each year through 2015	tax burden was 11.9% in 2010 and 12.3% in 2011; New
		England's burden was 10.6% in 2010 and 10.9% in 2011. Tax
		Foundation data for 2011 is not available.
Θ	17. Transportation Infrastructure	page 33
	Benchmark: 81% of Priority 1 & 2 roads and 70% of	Data: The percentage of Priority 1 & 2 roads rated fair or
	Priority 3 roads will meet a rating of fair or better by 2015	better declined from 70% in 2011 to 67% in 2012 and the
		percentage of Priority 3 roads rated fair or better remained
		approximately 62%.
⊜	18. On-the-Job Injuries and Illnesses	page 35
	Benchmark: Maine's reported on-the-job injury and	Data: From 2012 to 2013, Maine's rate per 100 workers
	illness rate will get closer to the U.S. rate each year	declined from 5.7 to 5.6 and the U.S. rate declined from 3.5
	through 2015	to 3.4.
C	OMMUNITY	
Ci	vic Assets	
•	19. Affordable Housing	page 36
	Benchmark: The housing affordability index will reach	Data: Maine's housing affordability index improved from
	1 by 2015	0.92 in 2011 to 0.95 in 2012, the highest since 2000.

Di	isparities	
-	<b>20. Poverty</b> <b>Benchmark:</b> Maine's poverty rate will decline and remain below the U.S. through 2015	<b>page 37</b> <b>Data:</b> From 2011 to 2012, Maine's rate grew from 13.3% to 13.9%, the U.S. rate grew from 15.2% to 15.7%, and the New England rate grew from 11.5% to 11.9%.
<b>⊕</b>	<b>21. Gender Income Disparity</b> <b>Benchmark:</b> The median annual income of women working full-time will improve to 100 percent of the median annual income of men working full-time by 2015	page 39 Data: Women's earnings relative to men in Maine improved from 78.2% in 2011 to 82.9% in 2012; the U.S. percentage declined from 78.8% to 78.3%.
He	ealth and Wellness	
0	<b>22. Wellness and Prevention</b> <b>Benchmark:</b> The percent of overweight and obese adults in Maine will decrease to 50% by 2015	page 41 Data: Maine's combined overweight and obesity rate was 65.0% in 2011 and 64.2% in 2012; the U.S. combined rate was 63.5% in 2011 and 63.4% in 2012.
⊖	23. Health Insurance Coverage Benchmark: The percentage of Maine's population with health insurance coverage will continually rise and remain above the U.S. rate	<b>page 42</b> <b>Data:</b> Maine's rate was 90.2% in 2011 and 90.4% in 2012; the U.S. rate was 84.0% in 2011 and 84.2% in 2012.
NEW	<b>24. Food Insecurity (New indicator)</b> <b>Benchmark:</b> Maine's percentage of food insecure households will decline to the New England average by 2020	page 43 Data: In 2012, 14.9% of Maine households were food insecure; the New England average was 13.0%.
EI	NVIRONMENT	
St	ewardship	
☆ ⊕	<b>25. Sustainable Forest Lands</b> <b>Benchmark:</b> The balance of net growth to removals will be maintained over time near a 1:1 growth to removals ratio	page 45 Data: Maine's growth to removals ratio was 1.19 in 2011 and 1.31 in 2012 and continues to meet the benchmark.
En	vironmental Quality	
<b>☆</b>	<b>26. Air Quality</b> <b>Benchmark:</b> Maine's overall number of days that fall into one of the listed categories and the severity of the health categories will continue to decline through 2015	page 46 Data: Five days were categorized as "unhealthy for sensitive groups" in 2013 compared to four in 2012, and 18 days were categorized as "moderate" in 2013 compared to 25 in 2012. No days have been categorized as unhealthy or very unhealthy since 2010.
<b>*</b>	27. Water Quality	page 47
⊜	<b>Benchmark:</b> The percentage of Maine's assessed water bodies classified as Categories 1 and 2 will increase each year through 2015	<b>Data:</b> In 2010, 95% of Maine rivers and streams and 91% of Maine lakes and ponds met the Category 1 or 2 standard.

## 1. Per Capita Personal Income Benchmark: Maine's national rank among the 50 states on per capita personal income will reach 25<sup>th</sup> by 2015



## Maine's National Rank on Per Capita Personal Income 2000-2012

Source: Bureau of Economic Analysis

## Maine Improves 3.1% but Rank Remains at 29<sup>th</sup>

**Background:** Per capita personal income is the income received from all sources divided by the state's population. These sources include wages, salary, supplements, rents, dividends, interest, and transfer payments to individuals for which no current services are performed, such as Social Security, unemployment, welfare assistance, and veteran's benefits.

### What the Data Shows

- Maine's per capita income grew by 3.1% from \$38,880 in 2011 to \$40,087 in 2012.
- Maine's national rank remained at 29th.
- U.S. per capita personal income grew by 3.4% (from \$42,298 to \$43,735) and New England by 3.3% (from \$51,900 to \$53,600) from 2011 to 2012.
- Maine's per capita personal income is the lowest in New England.
- Maine received 22% of its total personal income from transfer payments in 2011 compared to the U.S. average of 17%.
- Maine's per capita personal income lagged the nation by 8.3%, the most since 2008.

#### Why It Matters

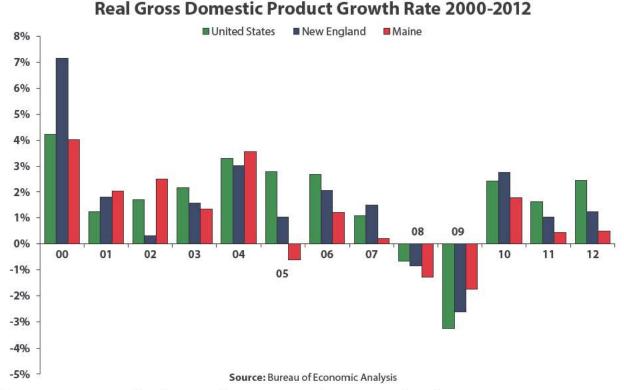
- Per capita personal income is a critical measurement of economic prosperity and speaks to the productivity of Maine's economy.
- Higher incomes make it easier to afford necessities and make amenities more affordable, allowing Mainers to enjoy a higher quality of life.
- Higher incomes generate more revenue to pay for necessary services.
- Continued progress toward the benchmark will require positive movement on many of this report's other indicators.

	Income	Rank	
United States	\$43,735		
New England	\$53,600		
Connecticut	\$59,687	1	
Massachusetts	\$55,976	2	
New Hampshire	\$49,129	9	
Rhode Island	\$45,877	14	
Vermont	\$44,545	21	
Maine	\$40,087	29	

Source: Bureau of Economic Analysis

- Increasing the components of Maine's per capita personal income that are not derived from transfer payments can help to boost economic activity in Maine.
- For more on this topic, see the Quarterly Economic Newsletter at <u>www.mdf.org/publications</u>.

**Related Indicators:** Employment, Research and Development Expenditures, Higher Degree Attainment, Fourth Grade Reading Scores, Eighth Grade Math Scores, State and Local Tax Burden, Poverty, Wellness and Prevention



## Maine's GDP Growth Slower Than U.S. and New England

**Background:** Gross Domestic Product (GDP) is a measure of economic health and a primary measurement of a growing or receding economy. GDP is the total value added by all industry sectors in production by labor and property located within a geographic area.

#### What the Data Shows

- After declining in 2008 and 2009, GDP grew in Maine, New England, and the U.S. from 2010 to 2012.
- Maine's GDP grew 0.5% from 2011 to 2012 while New England grew 1.2% and the U.S. grew 2.5%.
- From 2007 to 2012, Maine's GDP declined 0.4% while New England grew 1.5% and the U.S. grew 2.5%.
- As the chart on the following page shows, Real Estate, Government, Health Care and Social Assistance, and Manufacturing continue to account for half of Maine's economic output.
- Overall, from 2011 to 2012, eleven sectors experienced growth and eight declined.
- The largest growth was seen in two of Maine's smaller industries: Arts, Entertainment, and Recreation, and Management, both of which grew by 5.7%.
- The Agriculture, Forestry, Fishing, and Hunting sector saw the greatest decline at -2.4%.

#### Why It Matters

- GDP is a cumulative measurement that is affected by a number of other indicators.
- Ensuring that Maine has an adequate supply of workers with appropriate skills and education to meet the needs of Maine employers is necessary to help grow our economy.
- Controlling costs like health care, energy, tax burden, and the cost of doing business will help Maine businesses to thrive.
- Identifying and properly supporting industries that generate growth is an important piece of moving Maine's economy forward.

## 2. Gross Domestic Product (Continued)

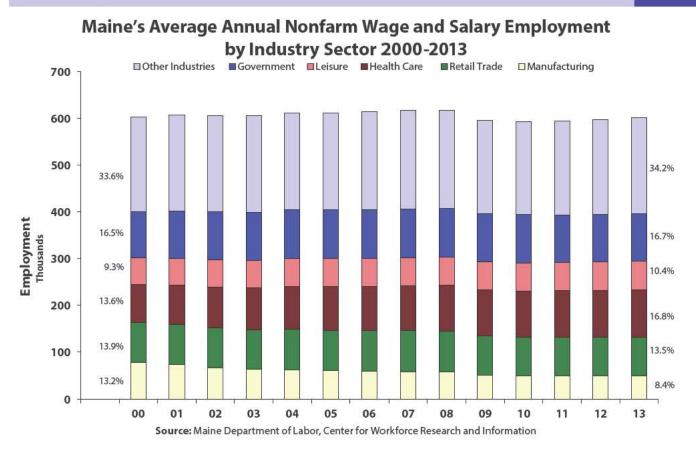
Industry Sector	Product in Maine by GDP Millions of Dollars	% of Total	% Change 2011-2012	
Real Estate	\$6,714	15%	-1.3%	
Government	\$6,011	13%	-0.7%	
Health Care and Social Assistance	\$5,155	11%	-0.9%	
Manufacturing	\$4,851	11%	2.3%	
Retail Trade	\$4,226	9%	1.7%	
Finance and Insurance	\$3,496	8%	0.7%	
Prof., Scientific & Technical Services	\$2,445	5%	0.1%	
Wholesale Trade	\$2,265	5%	3.7%	
Construction	\$1,718	4%	2.8%	
Accommodation & Food Services	\$1,675	4%	2.8%	
Administrative & Waste Services	\$1,334	3%	-1.1%	
Trans. and Warehousing	\$1,098	2%	-1.0%	
Information	\$1,047	2%	-0.6%	
Other Services	\$1,009	2%	-1.7%	
Utilities	\$803	2%	2.8%	
Agriculture, Forestry, Fishing, Hunting	\$615	1%	-2.4%	
Management	\$575	1%	5.7%	
Educational Services	\$534	1%	1.5%	
Arts, Entertainment, Recreation	\$460	1%	5.7%	

Source: Bureau of Economic Analysis

**Related Indicators:** Employment, Productivity, Higher Degree Attainment, Fourth Grade Reading Scores, Eighth Grade Math Scores, Cost of Doing Business, Cost of Health Care, Cost of Energy, State and Local Tax Burden

# 3. Employment

**Benchmark:** Employment measured by the total number of jobs will increase each year



## **Employment Continues to Recover From Recession**

**Background:** The indicator tracks Maine's total nonfarm payroll employment and employment in selected major economic sectors over time.

### What the Data Shows

- Maine added 3,400 nonfarm payroll jobs from 2011 to 2012 and 3,600 from 2012 to 2013, growing from 594,700 in 2011 to 601,700 in 2013.
- Maine has a large share of population aging to retirement over the next two decades, which is constraining employment growth. Despite slow growth, the share of Maine's population that is employed is rising (which is not occurring nationally), and is higher than the U.S. average.
- Seven sectors added jobs from 2012 to 2013, led by Professional & Business Services (1,800), Leisure & Hospitality (1,100), Other Services (600), and Health Care (500).
- Two sectors lost jobs from 2012 to 2013: Government (-1,000) and Manufacturing (-400).
- Employment in the Wholesale and Retail Trade, Construction, Mining and Logging, and Information sectors was little changed from 2012 to 2013.
- Over the long term, manufacturing employment has declined, but the sector continues to maintain a substantial share of Maine's total economic output due to significant improvements in productivity. Real manufacturing GDP in 2012 was about the same as in 2007 before the recession, despite a 15 percent decline in jobs.

Employment in Maine by Selected Sectors 2013								
Sector	Employment	Percent of Total	Jobs Gained/ Lost	Growth				
Government	100,500	16.7%	-1,000	-1.0%				
Health Care and Social Assistance	100,900	16.8%	500	0.5%				
Retail Trade	81,300	13.5%	200	0.2%				
Leisure and Hospitality	62,700	10.4%	1,100	1.8%				
Professional and Business Services	60,000	10.0%	1,800	3.1%				
Manufacturing	50,400	8.4%	-400	-0.8%				
Financial Activities	31,900	5.3%	400	1.3%				
Construction	25,400	4.2%	-200	-0.8%				
Educational Services	21,300	3.5%	400	1.9%				
Other Services	20,600	3.4%	600	3.0%				
Wholesale Trade	19,500	3.2%	0	0.0%				
Transportation, Warehousing, & Utilities	17,200	2.9%	300	1.8%				
Information	7,600	1.3%	-300	-3.8%				
Mining & Logging	2,400	0.4%	-100	-4.0%				

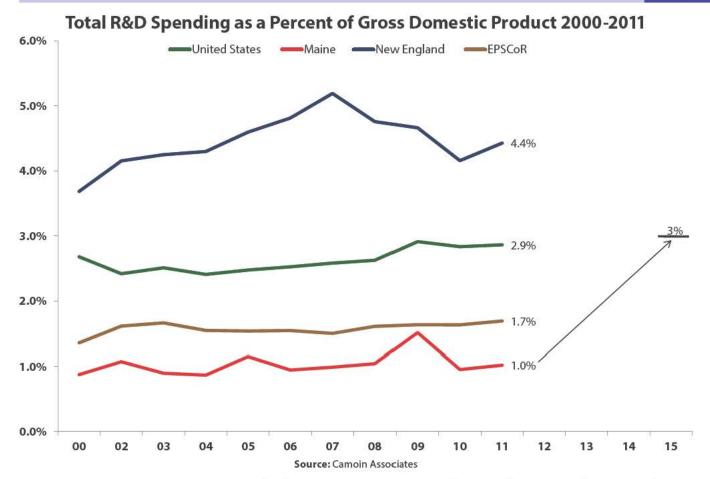
Source: Maine Department of Labor, Center for Workforce Research and Information

#### Why It Matters

- Total employment is an important indicator of the health of Maine's economy.
- It is important for policymakers, employers, workers, educators, and students to understand the changing dynamics of Maine's economy.
- Job quality is another closely related issue. In 2012, Maine's average annual pay was approximately 78% of the U.S. average.
- Adding more high-quality jobs in Maine, and ensuring that we have enough workers with the right skills to fill those jobs, will increase earnings and improve the state's economy.
- As Maine's employment numbers recover, the jobs that will be available are likely to be in different sectors and different areas of the state. It will be important to ensure that Maine's current and future workers have the appropriate education, training, and skills to take advantage of emerging opportunities.
- Many older workers across Maine's economy are approaching retirement. All sectors will be affected and some more severely than others. Replacing the numbers, knowledge, and skills of these retiring workers will be a significant challenge.
- Maine must continue to invest in education at all levels and in all forms to prepare our workforce for the current and future economy.

**Related Indicators:** Per Capita Personal Income, Gross Domestic Product, Higher Degree Attainment, Fourth Grade Reading Scores, Eighth Grade Math Scores, Cost of Doing Business, Workforce

## 4. Research and Development Expenditures Benchmark: Total R&D spending as a percent of GDP in Maine will increase to 3% by 2015



## **Greater R&D Investment Needed to Support Innovation and Economic Growth**

**Background:** This indicator compares Maine with the EPSCoR (Experimental Program to Stimulate Competitive Research) states, U.S., and New England averages. The 3% benchmark is consistent with the state's *2010 Science and Technology Action Plan* and is regarded by the Growth Council as necessary to expand Maine's innovation economy and improve competitiveness.

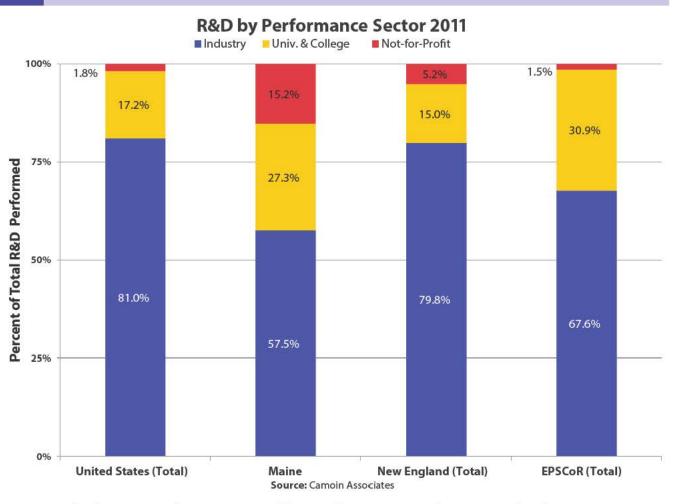
### What the Data Shows

- Maine's total R&D investment was \$535 million in 2011, or approximately 1% of Maine's total GDP, ranking 41st in the nation.
- This was approximately one-third of the U.S. average rate and less than a quarter of the New England rate.
- An additional investment of approximately \$1 billion would have been needed to reach the 3% benchmark in 2011.
- The percentage of Maine's total R&D coming from industry improved from 54.4% in 2010 to 57.5% in 2011. Industry R&D investment is an important component of Maine's economy.

#### Why It Matters

- Approximately 80% of economic growth comes from innovation.
- R&D investment in Maine has yielded a high return and generated significant economic activity, and state R&D investment can leverage funds from other sources.
- R&D investment at the University of Maine generated a 6:1 return on investment.
- State-funded R&D programs received \$3.67 million in state funding and expended \$29.65 million from all sources.

## 4. Research and Development Expenditures (Continued)



- Maine Technology Asset Fund projects generated \$100.7 million in new grants from sources other than state government.
- R&D investment is critical to competing in the knowledge-based economy, fueling innovation that ultimately generates economic growth.
- An innovation-driven economy supports, and is supported by, a skilled and educated workforce.
- Commercializing and bringing new developments to market is important to growing Maine's economy.

**Related Indicators:** Per Capita Personal Income, Gross Domestic Product, Higher Degree Attainment, Fourth Grade Reading Scores, Eighth Grade Math Scores



## On paper, Maine exports drop 12% from 2012 to 2013

**Background:** In reality, Maine's exports performed better than the data indicates. Concerns about the integrity of the semiconductor export number raise questions about this sector's actual performance. The two Maine manufacturers of these items indicate there has been no loss of production or change in exports. Indications are that changes by one of the manufacturers in the completion of export documentation, the source of this indicator's underlying data, account for the discrepancy.

The accompanying graph compares Maine's performance (indexed to 1996) relative to the U.S. totals using two scenarios – one including all commodities and one excluding semiconductors.

### What the Data Shows

- On paper, Maine's exports fell to \$2.6 billion in 2013, the lowest total since the 2009 financial crisis and approximately even with Maine's 2007 total.
- U.S. exports grew 2.1% from 2012 to 2013.
- The sharp decline in Maine's reported total was driven almost entirely by a loss of semiconductor exports, which dropped from a high of \$918 million in 2011 to \$457 million in 2012 and just \$94 million in 2013.
- Additionally, exports of aircraft and aircraft parts declined by \$94 million.
- Removing the semiconductor industry data anomaly shows Maine's export growth continuing (by 37% since 2009), albeit at a slower rate than the rest of the country (by 52% since 2009).
- Canada remained the leading market for Maine products, receiving half of recorded exports in 2013.

## 5. International Exports (Continued)

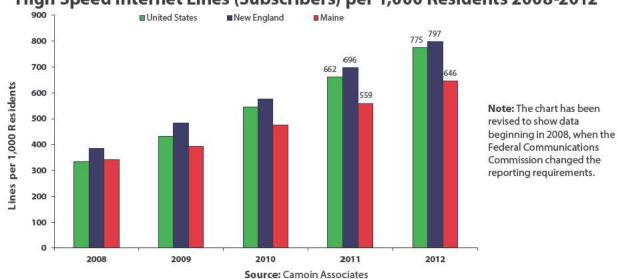
- China, Japan, Malaysia and South Korea rounded out the Top 5, with the major European markets completing the top 10.
- In all, Maine companies exported to 182 countries worldwide.

#### Why It Matters

- Identifying and capitalizing on new markets is critical to growing Maine's economy.
- International markets represent real growth opportunities with the potential to help Maine businesses grow customers and revenue that will drive productivity and sustainability over time.
- Ensuring that Maine's businesses are able to deliver a quality product at a competitive price is critical and speaks to the need to invest in our workforce and manage cost structures.
- Rising since 2006, 178,000 Maine workers are currently dependent on international trade.
- The State of Maine must continue building relationships worldwide to identify market opportunities for our businesses, and Maine's businesses must be ready to capitalize on these opportunities.
- The Maine International Trade Center is an important partner to Maine businesses looking to expand their international markets. Their trade missions have been very successful in helping Maine businesses secure new customers in foreign markets.

Related Indicators: Per Capita Income, Gross Domestic Product, Employment, Research and Development Expenditures, High Speed Internet Subscribers, New Business Starts, Productivity, Higher Degree Attainment, Workforce, Cost of Doing Business

## High Speed Internet Subscribers Benchmark: Maine will reach the New England level of high speed internet subscribers by 2015



## High Speed Internet Lines (Subscribers) per 1,000 Residents 2008-2012

## Maine Continues to Grow but Loses Ground on New England Average

**Background:** This indicator compares the number of high speed internet subscribers per 1,000 residents in Maine, New England, and the U.S. This measure reflects both whether residents are able to access the internet and choose to do so. Expanding access is particularly troubling in rural states like Maine. Private service providers require a minimum density level to make it cost effective to expand service, and customers must live within a certain proximity of existing technologies. If available, satellite service may require costly upfront investments and/or relatively high monthly payments, provide limited bandwidth usage, or be vulnerable to weather patterns.

#### What the Data Shows

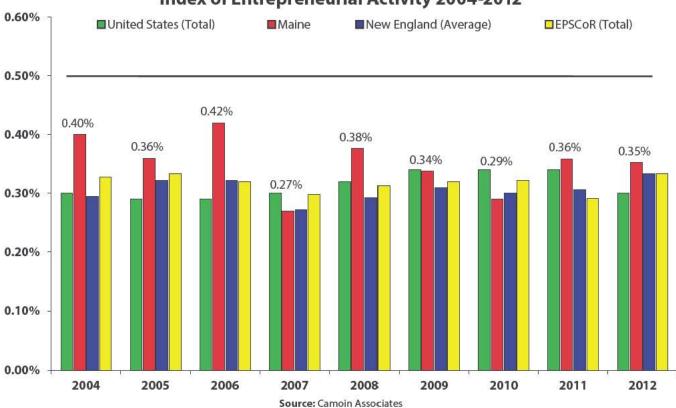
- The gap between Maine's rate of subscribers per 1,000 residents and the New England average grew from 137 in 2011 to 151 in 2012, and the gap between Maine and the U.S. grew from 102 to 129.
- Maine's rate grew from 559 to 646, an increase of 87, from 2011 to 2012. Over the same time, New England's rate increased by 101 (from 696 to 797) and the U.S. rate increased by 113 (from 662 to 775).
- From 2008 to 2012, Maine's rate grew 89%, while the U.S. grew 132% and New England 107%.
- According to the ConnectME Authority, 93.1% of Maine households have access to broadband at least to the Federal Communications Commission's Tier 1 level.

#### Why It Matters

- Expanding Maine's internet connectivity is essential for economic growth and quality of life.
- Increasingly, the knowledge economy requires that Maine businesses, organizations, and individuals use the internet to connect to each other and the world at large.
- Internet connectivity enables businesses to access much larger markets and compete in the global economy and is especially important to small businesses.
- Internet access enables businesses and individuals to locate in communities across the state and still remain connected.
- Internet access makes online education possible and improves accessibility, quality, and efficiency of health care.
- Southern and coastal Maine generally have better access than the state's rural regions, but even these areas have gaps.
- Reaching the New England level of high speed internet subscribers will be difficult without a major shift in policy or public sector investment.

**Related Indicators:** Per Capita Personal Income, Gross Domestic Product, Employment, Research and Development Expenditures, International Exports, New Business Starts, Productivity, Cost of Doing Business, Cost of Health Care

7.



## Index of Entrepreneurial Activity 2004-2012

## New Business Activity Even in Maine and Above Other Averages

**Background:** This index reflects the level of entrepreneurship in the state and the health and vitality of new businesses. The index measures the percentage of individuals from ages 20 to 64 who did not own a business in the first survey month that start a business in the following month at 15 or more hours per week. Maine is compared to the New England, U.S., and EPSCoR (Experimental Program to Stimulate Competitive Research) averages.

#### What the Data Shows

- Maine's rate was essentially unchanged from 2011 to 2012 (0.36% and 0.35%) and remained above the 2012 U.S. (0.30%), New England (0.33%), and EPSCoR (0.33%) averages.
- Maine's national rank dropped from 13<sup>th</sup> in 2011 to 17<sup>th</sup> in 2012.
- According to the Maine Department of Labor, the survival rate of new Maine businesses was 86% (1,992 of 2,316) from the fourth quarter of 2010 to the fourth quarter of 2011.
- These businesses created 7,107 jobs in 2010 with an average quarterly wage of \$7,499, approximately 24% below the average quarterly wage for the total private sector.
- Microbusinesses (five or few employees) are an important part of Maine's economy, accounting for 88.8% of Maine's 150,612 businesses in 2011.
- From 2010 to 2011, Maine's number of microbusinesses was essentially unchanged after dropping by 0.8% between 2009 and 2010. New England's number increased by 0.8%, and the U.S. number increased by 1.3%.

## 7. New Business Starts (Continued)

- According to research conducted by University of Maine Economics Professor James McConnon, since 2001, microbusinesses have accounted for a larger percentage of total annual employment in Maine than in any other New England state except Vermont.
- In 2011, microbusinesses in Maine accounted for 21.7% of the state's total employment, above the New England (18.5%) and national (19.3%) averages.

#### Why It Matters

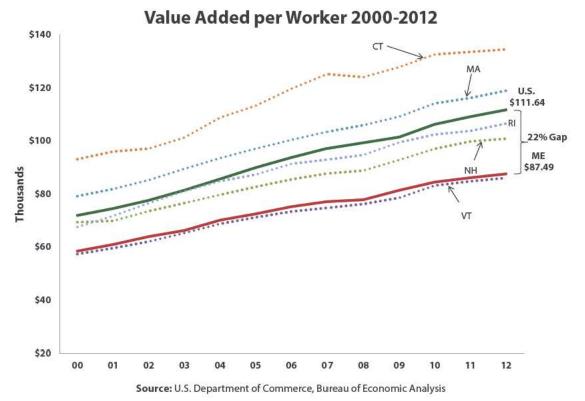
- New business activity, and the success of these new businesses, is critical to Maine's economy.
- Encouraging entrepreneurs and potential entrepreneurs and understanding the types of supports they need to thrive and expand can boost Maine's economy.
- Continued support of efforts like the Maine Technology Institute; the Maine International Trade Center; the University of Maine's Innovation Engineering program; The University of Maine Cooperative Extension; Women, Work and Community; and the Maine Center for Entrepreneurial Development helps to provide Maine entrepreneurs with the resources they need to start and grow businesses and create jobs and wealth.

**Related Indicators:** Employment, Research and Development Expenditures, Higher Degree Attainment, Fourth Grade Reading Scores, Eighth Grade Math Scores, Workforce

8.

## Productivity

**Benchmark:** The value added per worker in Maine will increase to within 15% of the value added per worker in the U.S. by 2015



## Improvement on Worker Productivity Needed to Grow Maine's Economy

**Background:** This indicator measures productivity across all economic sectors. Productivity is calculated by dividing Maine's Gross Domestic Product (GDP) by the total number of the employed workforce.

#### What the Data Shows

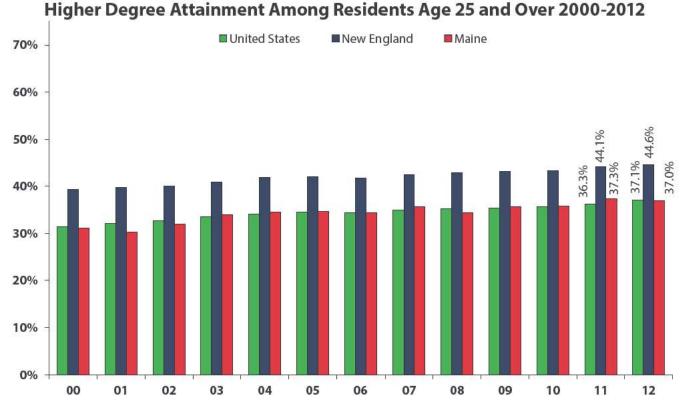
- Maine's average productivity was \$87,484 per worker in 2012, up from \$86,048 in 2011.
- Maine's 2012 average was 22% below the U.S. average of \$111,645 per worker.
- The gap between the U.S. and Maine grew from \$23,013 in 2011 to \$24,161 in 2012.
- Productivity has been trending upward in both Maine and the U.S. but Maine has not kept pace with the nation.
- Maine's productivity increased by 1.7% from 2011 to 2012 while the U.S. average increased by 2.4%.
- Over the last five years, Maine's productivity grew by 13.5% and U.S. productivity grew by 15.0%.
- Connecticut (ranked fifth nationally) has the highest productivity among the New England states, followed by Massachusetts (12<sup>th</sup>), Rhode Island (20<sup>th</sup>), New Hampshire (28<sup>th</sup>), Maine (49<sup>th</sup>), and Vermont (51<sup>st</sup>).

#### Why It Matters

- Productivity is a critical component of a region's competitiveness and overall economic health.
- Maine's economic structure contributes to our relatively low productivity. Maine generally lacks industries with high
  economies of scale that help drive productivity in other parts of the nation.
- Improving our productivity is critical to Maine's businesses remaining competitive with the nation and the world.
- Further investment in the skills and education of our workforce, investments in infrastructure and programs that support Maine businesses, improving educational attainment, expanding R&D investment, increasing innovation, and managing cost structures are critical to moving Maine in a positive direction.
- For more on this topic, see the Quarterly Economic Newsletter at www.mdf.org/publications.

**Related Indicators**: Gross Domestic Product, Employment, Research and Development Expenditures, High Speed Internet Subscribers, Higher Degree Attainment, Fourth Grade Reading Scores, Eighth Grade Math Scores, Cost of Energy, Cost of Health Care, Transportation Infrastructure, Wellness and Prevention

## 9. Higher Degree Attainment Benchmark: The percentage of Maine residents age 25 and over with a higher degree will increase to at least the New England average by 2020



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

## Maine Stays Even on Higher Degree Attainment; Progress Needed to Move Economy Forward

**Background:** The indicator compares the percentage of residents 25 and over who have attained a higher degree in Maine, the U.S., and New England. Higher degrees include associate's, bachelor's, and advanced degrees.

#### What the Data Shows

- Maine's rate of higher degree attainment was roughly even from 2011 to 2012 (37.3% to 37.0%).
- New England moved from 44.1% in 2011 to 44.6% in 2012 and the U.S. from 36.3% to 37.1%.
- Maine's rate trailed New England's by 6.8 percentage points in 2011 and 7.6 in 2012.
- Maine's rate of graduate and professional degree attainment declined from 10.5% in 2011 to 9.8% in 2012, while bachelor's (17.9% to 18.1%) and associate's degree attainment (8.9% to 9.1%) were essentially unchanged.
- Higher education correlates with higher earnings in 2012, when median earnings were \$51,050 for those with graduate or professional degrees; \$40,450 for those with bachelor's degrees; \$30,400 for those with some college but less than a bachelor's degree; \$26,650 for those with high school diplomas; and \$20,950 for those with less than a high school degree.
- According to Educate Maine's Education Indicators for Maine 2013, of 100 Maine students entering ninth grade, 85
  will graduate from high school, 54 will enroll in two or four-year colleges, and 32 will graduate from a two or fouryear college.
- This "funnel" has important impacts on Maine's higher degree attainment.

(continued on next page)

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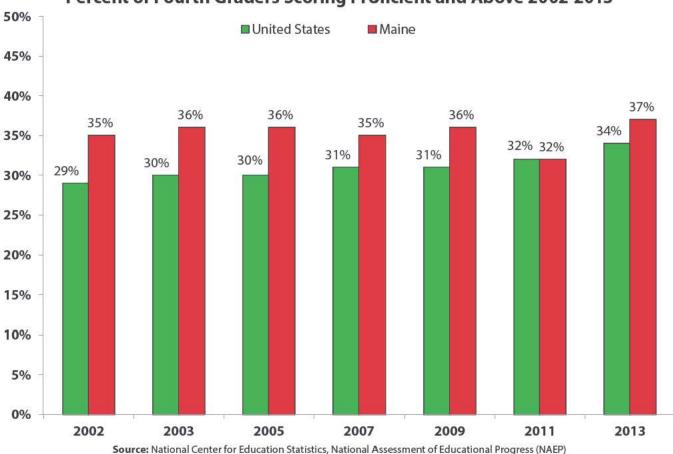
#### Why It Matters

- Higher education in all forms is critical to providing Maine's workers with the knowledge and skills needed for success in the knowledge-driven economy of today and tomorrow.
- An educated workforce is critical to businesses looking to invest, locate, expand, and stay in Maine.
- Demand for college-educated workers in Maine is expected to be approximately seven times greater than demand for high school graduates by 2018.
- Jobs in virtually all economic sectors are requiring higher levels of education.
- Improved educational attainment is key to improving per capita incomes, gross domestic product, employment, productivity, innovation, and health and wellness, and reducing tax burden (by increasing incomes), food insecurity, and poverty.
- In turn, this generates more tax revenue for investment in roads, broadband, research and development, education, and other services.
- Improving educational attainment starts with high-quality early childhood development; continues with a K-12 system that prepares students for multiple pathways to success beyond high school; continues with a higher education system that provides students with the knowledge, skills, and abilities to succeed in existing and emerging professions; and concludes with programs and networks that encourage continuing education throughout life.
- Professional certifications are also important to improving the skill levels of Maine workers.
- There are not enough young people in Maine for that cohort alone to sufficiently boost attainment levels. We need to fully engage adult workers and potential workers to make meaningful progress toward the benchmark.
- The numbers vary, but according to the U.S. Census Bureau, somewhere in the vicinity of 200,000 Mainers have some post-secondary education but have not completed a degree. Encouraging these and other adults to continue their education will help them and the state to benefit from their realizing their full potential.

**Related Indicators:** Per Capita Personal Income, Gross Domestic Product, Employment, Research and Development Expenditures, New Business Starts, Productivity, Fourth Grade Reading Scores, Eighth Grade Math Scores, State and Local Tax Burden, Workforce, Poverty, Food Insecurity

## 10. Fourth Grade Reading Scores Benchmark: Maine's share of students scoring proficient and above will reach 50% by 2015





## Percent of Fourth Graders Scoring Proficient and Above 2002-2013

## Maine's Proficient and Above Rate at 37%; Further Investment in Early Childhood Needed

**Background:** The National Assessment of Educational Progress (NAEP) is the largest nationally representative and continuing assessment of America's students in various subjects, including reading. NAEP assessments are administered uniformly nationwide, allowing for state-to-state comparisons and for analysis of long-term trends. The NAEP assesses students in grades 4, 8, and 12, which are critical periods of development and learning.

The indicator compares the percentage of Maine and U.S. students scoring proficient or better. Proficient is defined as competency over challenging subject matter, application to real-world situations, and appropriate analytical skills.

## What the Data Shows

- The percentage of Maine fourth graders testing at proficient or above increased from 32% in 2011 to 37% in 2013.
- Maine's rates were essentially even from 2002 through 2009. The 32% in 2011 was a new low and the 37% in 2013 is a
  new high.
- U.S. scores improved to 34% and have been steadily increasing from 29% in 2002.
- Average scores in both Maine and the nation differ by gender (girls score higher than boys), race (white students score higher than non-white students), and eligibility for school lunch programs (eligible students score lower than non-eligible students).

## 10. Fourth Grade Reading Scores (Continued)

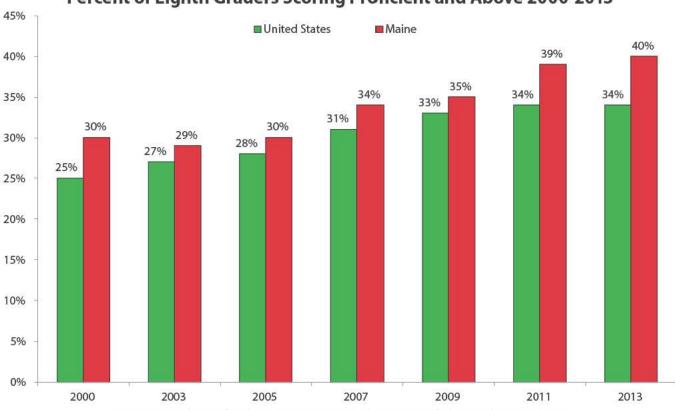
#### Why It Matters

- Fourth grade is a critical juncture in the development of reading skills, which are essential to future success in school, work, and life. This is when reading should be established as a skill and students transition from "learning to read" to "reading to learn."
- Fourth grade reading scores reflect the effectiveness of previous investments (such as early childhood, prekindergarten, and Head Start) and are a predictor of future student success, outcomes, and public costs.
- K-12 enrollment has declined and K-12 expenditures have increased since 2000. It is important that Maine spend its education funds strategically to achieve the highest return on investment.
- Investment in early childhood education has been shown to have the highest return on investment over the long term in the form of improved K-12 performance, higher college attendance and completion, higher productivity and incomes, and reduced social costs (remediation, criminal justice, health care, and welfare).
- Providing children with the tools to become productive members of society will help move many other indicators and improve Maine's economy.
- Societal factors play a critical role, but the educational system is where basic skills like reading are honed and enhanced and is a major component of state and municipal budgets.

**Related Indicators:** Per Capita Personal Income, Gross Domestic Product, Employment, Productivity, Higher Degree Attainment, Eighth Grade Math Scores, Food Insecurity, Wellness and Prevention

# 11. Eighth Grade Math Scores

**Benchmark:** Maine's share of students scoring proficient and above will reach 50% by 2015



## Percent of Eighth Graders Scoring Proficient and Above 2000-2013

Source: National Center for Education Statistics, National Assessment of Educational Progress (NAEP)

## Maine Remains Above U.S. but Continued Improvement Needed to Reach Benchmark

**Background:** The National Assessment of Educational Progress (NAEP) is the largest nationally representative and continuing assessment of America's students in various subjects, including math. NAEP assessments are administered uniformly nationwide, allowing for state-to-state comparisons and for analysis of long-term trends. The NAEP assesses students at grades 4, 8, and 12, which are critical periods of development and learning.

The indicator compares the percentage of Maine and U.S. eighth graders scoring proficient or better. Proficient is defined as competency over challenging subject matter, application to real-world problems, and appropriate analytical skills.

#### What the Data Shows

- The percentage of Maine eighth graders scoring proficient or better increased from 30% in 2000 to 40% in 2013.
- The U.S. average increased from 25% to 34%, and the New England average from 29% to 44%, over the same time period.
- In 2013, Maine ranked fourth among the New England states, behind Massachusetts (55%), New Hampshire (47%), and Vermont (47%).
- Average scores in both Maine and the nation were similar for males and females but differed by race (white students tended to score higher than non-white students), eligibility for school lunch programs (eligible students scored lower than ineligible students), and parental education (higher levels are linked to higher test scores).

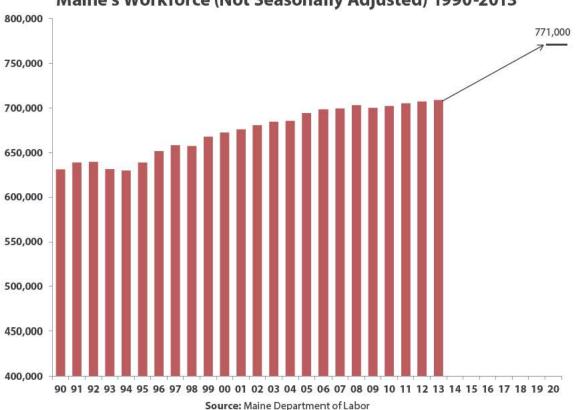
#### Why It Matters

- Math is an indispensable skill in today's society and work environment.
- Math skills are especially important in industries related to science, technology, engineering, and math, many of which are growing and expected to continue to grow.

## 11. Eighth Grade Math Scores (Continued)

- Math proficiency is a strong indicator of a student's readiness for college.
- Eighth grade math scores reflect skills in algebra, which is recognized as a foundational skill.
- A study by the University of Southern Maine's Center for Education Policy, Applied Research and Evaluation found that students who did not meet state standards for proficiency in eighth grade math scores were much more likely to enroll in college remedial math classes.
- The Maine Comprehensive Research and Development Evaluation, Maine Innovation Index 2012, and Statewide Strategic Plan for Science, Technology, Engineering, and Mathematics cite eighth grade math scores as an indicator of Maine's future success in these areas.
- Students need a solid foundation to prepare them for success later on in their academics, in life, and in their careers. Addressing foundational issues such as poverty, food insecurity, and higher degree attainment (see those indicators in this report) can help drive improvement on this indicator.
- Continued investment in early childhood education and K-12 education is also essential to improving Maine's scores.

**Related Indicators:** Per Capita Personal Income, Gross Domestic Product, Employment, Productivity, Higher Degree Attainment, Fourth Grade Reading Scores, Food Insecurity, Poverty, Wellness and Prevention



## Maine's Workforce (Not Seasonally Adjusted) 1990-2013

## Growing the Workforce a Key to Growing Maine's Economy

**Background:** This indicator tracks Maine's workforce growth over time using the Maine Department of Labor's labor force estimates. Growth in the last decade was mostly due to rising labor force participation rates among those age 55 and over. Today baby boomers are in their 50s and 60s, and large numbers will be retiring in the years ahead. Finding workers to replace those who will be retiring is essential to Maine's economy.

This topic is the subject of a recent report by the Maine Development Foundation and the Maine State Chamber of Commerce, *Making Maine Work: Growing Maine's Workforce*, which is available at <u>www.mdf.org/publications</u>. Using Maine State Economist population projections, the report projects that Maine's workforce will cease growing and decline by 20,000 workers by 2020. The report outlines strategies to add 45,000 workers by 2020 rather than lose 20,000.

The Council is including this new indicator to highlight its importance to Maine's economy and track our progress going forward. The Council's benchmark is consistent with the *Making Maine Work* goal.

#### What the Data Shows:

- Maine's workforce has grown from 631,100 in 1990 to 672,440 in 2000 and 709,000 in 2013.
- Much of the growth was from the large number of baby boomers reaching their peak years of labor force participation (age 25 to 54). Most boomers are now past peak participation age and large numbers will be retiring in the years ahead.
- Maine's rates of labor force participation are low relative to U.S. averages for the disabled population and veterans.
- There are 17,000 disengaged youth (18 to 24 year-olds who have no degree beyond high school and are not currently working or in school) in Maine. Maine's rate of disengaged youth is the highest in New England.

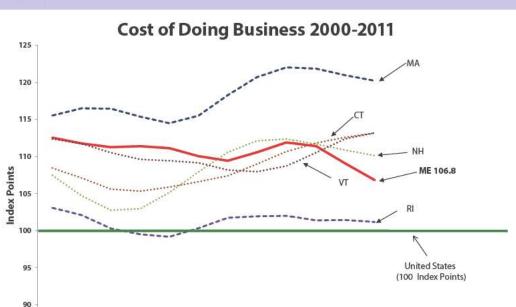
# 12. Workforce

#### Why It Matters:

- An adequate supply of skilled and educated workers is a key factor for businesses but Maine employers currently struggle to fill their needs.
- Approximately 200,000 Maine workers will reach what is traditionally thought of as retirement age in the near future.
- Solving the skills challenge for workers today will still leave us lacking enough workers to fill the need tomorrow.
- Maine needs more workers with diverse skills and education to meet the current needs of Maine employers and enable growth.
- Growing Maine's workforce will require us to engage more people who are already here but not actively engaged in our workforce, and people from beyond Maine who will move here.
- Engaging more people in the workforce can also improve the lives of Maine's citizens and add to our culture and social fabric.
- There are a number of organizations and programs currently working toward addressing the issue; ensuring that these efforts continue, are properly coordinated, and are taken to scale is important.
- *Making Maine Work: Growing Maine's Workforce* sets targets for expanding the workforce among various populations to attain the overall workforce goals: 10,000 new workers from our disabled population; 12,000 from seniors 65 and over; 6,000 from disengaged youth; 5,000 from our veteran population; 20,000 by retaining more young adults from Maine and encouraging others to relocate here; and 12,000 from foreign workers.

**Related Indicators:** Per Capita Personal Income, Gross Domestic Product, Employment, Productivity, Higher Degree Attainment, Poverty

**Cost of Doing Business** 13. Benchmark: The cost of doing business in Maine will decrease to the U.S. average by 2015



#### 05 Source: Moody's Analytics Maine's Cost of Doing Business at Lowest Rate Since 1991

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

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### What the Data Shows

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- Maine's overall cost of doing business improved from 9.1% above the national average in 2010 to 6.8% above in 2011, the lowest rate since 1991.
- Maine's energy index improved from 127.4 to 123.9 while labor (100.3 to 100.7) and tax burden indexes (114.8 to 114.6) were essentially unchanged from 2010 to 2011.
- Maine's national rank dropped from 8<sup>th</sup> highest in 2010 to 11<sup>th</sup> in 2011.

#### Why It Matters

- The relative cost of doing business is crucial to the profit margin of businesses and is an important consideration for businesses looking to expand or locate in the state.
- Managing cost structures can help lower the cost of doing business.
- Maine relies primarily on fossil fuels for energy and is particularly vulnerable to fluctuations in this volatile market. Diversifying our energy supply can provide businesses with more options.
- Maine's relatively low labor costs reduce our cost of business but also mean lower incomes for Maine people.
- Maine has made progress in lowering our tax burden in recent years but it remains above the national average.

Maine's National Rank in Cost of Doing Business, 1995 - 2011											
00	01	02	03	04	05	06	07	08	09	10	11
3	4	5	5	5	6	8	7	6	7	8	11

Source: Moody's Analytics

#### Related Indicators: Per Capita Personal Income, Cost of Energy, Cost of Health Care, State and Local Tax Burden

New England Ranks by Indexes, 2011							
	Overall Rank	Unit Labor Rank	Cost of Energy Rank				
MA	2	1	4	27			
VT	4	5	8	6			
CT	5	11	3	13			
NH	7	9	5	50			
ME	11	26	11	5			
RI	17	36	9	11			

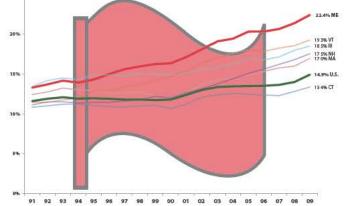
Source: Moody's Analytics



## 14. Cost of Health Care

**Benchmark:** Maine health care costs as a percent of GDP will decline to the U.S. average by 2015

## Total Health Care Expenditures as a Percent of GDP 1991-2009



Source: Kaiser Family Foundation and Bureau of Economic Analysis

## Updated Data Urgently Needed on Cost of Health Care

**Background:** Health care spending accounts for a significant proportion of state and national economic activity. With the ongoing changes in health care and health insurance, it is absolutely critical that we as a state have meaningful, current, and reliable data on public and private health care spending so Maine's policymakers and stakeholders in the health care delivery system can make informed decisions on this critical issue. Despite its importance, there is currently no updated and reliable data that allows comparisons across geographies and comprehensively addresses the impact of health care costs on Maine. The Council has pointed this deficiency out in its reports of the last three years, yet the state does not have a consistent and reliable method to collect this important data. The Legislature and Governor's Office are urged to identify the most appropriate mechanism and necessary resources to direct this effort.

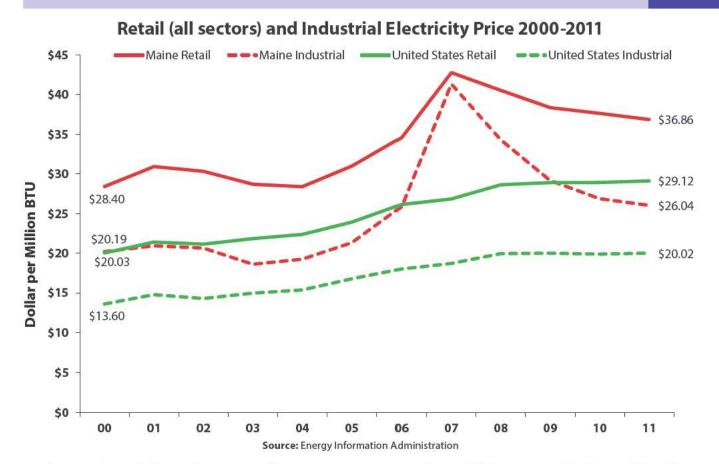
### What the Data Shows

• There is no updated information since the 2009 data above comparing total health care expenditures which has appeared in the 2012 and 2013 *Measures of Growth* reports.

### Why It Matters

- Maine businesses identified the high cost of health insurance as the top obstacle to investment in the Maine Development Foundation's 2010 *Making Maine Work* survey (www.mdf.org).
- The high cost of health care is a significant factor for individuals and employers who are based in Maine, and it is an important cost factor for businesses that may consider coming here.
- High health care costs limit access, affecting the health and productivity of Mainers.
- High health care costs affect the ability of Maine businesses to compete and make a profit.
- High costs for government-sponsored insurance programs can crowd out funding for other services.
- The cost of health services and the associated impacts vary widely throughout the state.
- There are a number of ways to help control the costs of health care:
  - Helping consumers understand health care coverage and assisting them in making informed decisions about their care and associated costs.
  - o Improving access to preventive care.
  - o Improving cost transparency and efficiency in the delivery of services.
  - o Improving the overall health and wellness of Maine's people, such as lowering overweight and obesity rates and reducing food insecurity.

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



## Maine's Electricity Prices Continue to Drop – Further Efficiency and Diversification Still Needed

**Background:** Maine's cost of energy for retail and industrial customers is compared to the corresponding U.S. averages, measured in dollars per million British Thermal Units (BTUs).

#### What the Data Shows

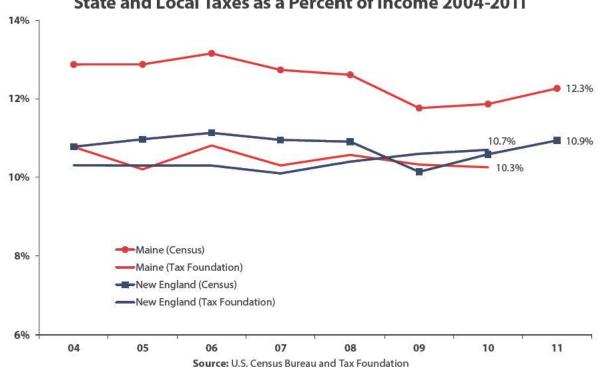
- Maine's retail and industrial electricity prices have both declined since 2007.
- From 2010 to 2011, Maine's retail price per million BTU declined from \$37.63 to \$36.86 (-\$0.77), and the industrial price per million BTU from \$26.87 to \$26.04 (-\$0.83).
- Maine's prices remain above U.S. retail and industrial prices, which were approximately \$29 and \$20 per million BTU, respectively, in both 2010 and 2011.
- Maine's retail electricity prices were \$8.37 per million BTU (42%) higher than the national average in 2000 and \$7.74 per million BTU higher (27%) in 2011.
- Maine's industrial electricity prices were \$6.60 per million BTU (48%) higher than the national average in 2000 and \$6.02 per million BTU (30%) higher in 2011.
- Maine's retail prices increased by 30% and U.S. retail prices by 45% from 2000 to 2011.
- Maine's industrial prices increased by 29% and U.S. industrial prices by 47% from 2000 to 2011.

## 15. Cost of Energy (Continued)

#### Why It Matters

- High energy costs affect Maine's cost of living and cost of doing business.
- Businesses, particularly manufacturers, weigh the cost of energy heavily when making location and expansion decisions. In the Maine Development Foundation's 2010 *Making Maine Work* survey (<u>www.mdf.org</u>), 78% of Maine's business leaders surveyed listed the cost of energy as the second strongest negative impact on businesses and organizations.
- Maine's retail and industrial electricity prices were the lowest in New England in 2011.
- Maine ranked 11th, lowest in New England, for energy costs in the Cost of Doing Business indicator.
- Although the indicator compares Maine to U.S. rates, Maine manufacturers compete against companies in neighboring Canadian provinces that benefit from dramatically lower costs of electricity resulting from different ownership and market structures.
- Maine relies more on fossil fuels than most of the rest of the nation, leaving the state particularly vulnerable to volatility in this market.
- Continuing to diversify Maine's energy sources (with natural gas, pellet, wind, tidal, and biomass sources) reduces our dependence on fossils fuels and helps to insulate Maine residents and businesses against price spikes.
- Improving energy efficiency through the Efficiency Maine Trust and other efforts can reduce consumption and lower the burden of energy costs on residents and businesses.
- Improving the efficiency of large industrial and commercial customers offers a high return on investment.

Related Indicators: Gross Domestic Product, Productivity, Cost of Doing Business



## State and Local Taxes as a Percent of Income 2004-2011

## Census Data Shows Maine and U.S. Tax Burdens Essentially Unchanged

Background: Tax burden measures the amount of state and local taxes a taxpayer pays for every \$100 of income, reported as a percent. U.S. Census data is updated for 2011, but no update is available to the 2010 Tax Foundation data.

### What the Data Shows

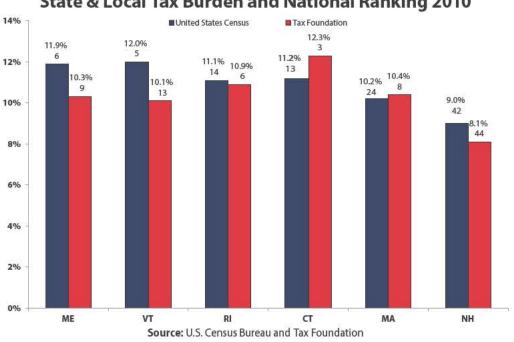
- According to Census data, Maine's tax burden was 11.9% in 2010 and 12.3% in 2011. New England's burden was 10.6% and 10.9%.
- According to the Tax Foundation, Maine's 2010 tax burden of 10.3% was below the New England average of 10.7%.
- Maine's 2010 state and local tax burden was 11.9% according to the U.S. Census (ranked 6th), and 10.3% (ranked 9th) according to the Tax Foundation.
- Maine's 2010 per capita taxes were \$4,374 (ranked 14<sup>th</sup>) according to the U.S. Census and \$3,807 (ranked 18th) according to the Tax Foundation.
- Maine performs better relative to the nation and New England on per capita taxes than on tax burden, which measures the ability to pay taxes.

U.S. Census estimates are calculated by dividing total in-state taxes by total in-state income.

The Tax Foundation makes adjustments to Census numbers to account for the "exportation" of taxes. For Maine, the majority of exportation occurs with out-of-state homeowners who pay in-state property taxes for second homes.

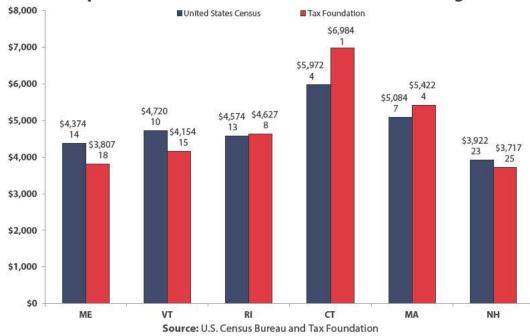
#### Why It Matters

- Tax burden and structure are cost factors for businesses and affect the disposable incomes of individuals.
- The tax burden can be lowered by reducing spending, legislative policy changes, raising incomes, or a combination of these.
- Taxes also generate revenue to invest in services, such as education, health care, research and development, and transportation, which are valued by residents and businesses.
- A tax structure which provides stable revenues, encourages economic growth and job creation, enables needed . investment in services, strikes an appropriate balance between state and municipal contributions, and enables Maine to compete economically is critical to moving Maine's economy forward.



## State & Local Tax Burden and National Ranking 2010





- Costs of health care, energy, and education are rising faster than incomes and, in turn, tax revenue, making it a . challenge to finance these important public services.
- Improving efficiency in service delivery can help to alleviate some of these challenges. .
- Maine's performance has been aided by policymakers avoiding raising taxes to address recent budget shortfalls. .
- Continued investment in Maine's people and infrastructure can boost incomes and reduce Maine's tax burden. .

Related Indicators: Per Capita Personal Income, Productivity, Higher Degree Attainment, Fourth Grade Reading Scores, Eighth Grade Math Scores, Cost of Doing Business

## 17. Transportation Infrastructure Benchmark: 81% of Priority 1 & 2 roads and 70% of Priority 3 roads will meet a rating of fair or better by 2015



## Maine Loses Ground on Roadway Improvements

**Background:** The state has established statutory goals for improving Priority 1, 2, and 3 highways, which include the interstate, arterials, and major collectors: 100% of all Priority 1 and 2 highways are to be ranked "fair" or better for safety, condition, and service by 2022, and all Priority 3 highways by 2027. The Council's 2015 benchmarks are consistent with these goals. This and the High Speed Internet Subscribers indicator speak to the connectivity within and beyond the state.

### What the Data Shows

- In 2012, 67% (1,586) of Priority 1 and 2 miles scored "fair" or better, down from 70% (1,638 miles) in 2011.
- In both 2011 and 2012, approximately 62% of Priority 3 miles met the "fair" or better standard (1,213 and 1,216 miles, respectively).
- Currently, 33% (765 miles) of Priority 1 and 2 miles and 38% (756 miles) of Priority 3 miles require improvement.
- The Maine Section of the American Society of Civil Engineers' 2012 *Report Card on Maine's Infrastructure*, updated from 2008, again assigned a D for roads, C for railroads, and C- for passenger transportation. Bridges improved from D+ to C-, airports from B- to B, and Ports and Waterways from C- to C.
- Transportation spending is now less than 10% of the total state budget compared to 26% in 1976.
- Gallons of gas taxed declined by 17% over the last decade even as travel held relatively constant.
- Federal gas tax rates have not changed since 1993 leaving the Highway Trust Fund near bankruptcy.
- A 2013 State Police budget change freed up \$7.5 million annually for transportation.

# 17. Transportation Infrastructure (Continued)

#### Why It Matters

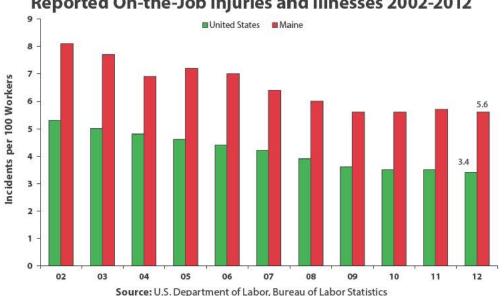
- Combined, Priority 1, 2, and 3 roadways account for 19% of all public roads, but carry 70% of all passenger and freight traffic in the state.
- Poor roads affect Maine's economy through reduced productivity, increased vehicle repairs, traffic delays, personal injury, property damage, and business location decisions.
- Maine's location in itself presents challenges in transporting goods to market. An efficient and effective transportation system is needed to minimize these challenges.
- The Maine Department of Transportation's current three-year work plan (2014-2016) meets only 70% of needs and indicates a \$303 million, three-year shortfall for highway and bridge capital improvements. This shortfall relates mostly to Priority 1, 2, and 3 highways and exists despite a \$100 million 2013 transportation bond.
- Bridge needs account for one-third of the shortfall; the balance relates to pavement preservation, reconstruction, and rehabilitation needs.
- Bridge funding will decline after 2014 while the number of bridges coming due for major rehabilitation or replacement will increase.
- Pavement preservation efforts, which protect well-built highways from falling into decline, are falling short by 41%.
- Rising capital improvement costs, the repeal of motor fuel tax indexing, and federally mandated increases in vehicle fuel efficiency further weaken financial capacity.
- Reversing this trend will require Maine to identify new revenue sources for the Highway Fund.
- The majority of Maine's passengers and freight move by road. However, further investment in alternative modes can alleviate the burden on Maine's roadways. For example, in fiscal year 2013, ridership on the Amtrak Downeaster was 556,347, a 5% increase over fiscal year 2012. Passenger miles also increased by 6% (to 43,305,427) over fiscal year 2012.

Actual Road Miles and Targets, 2010 - 2027						
	2010	2011	2012	2015	2022	2027
Priority 1 and 2	1509	1638	1586	1860	2351	N/A
Priority 3	1184	1213	1216	1416	N/A	1972

**Related Indicators:** Gross Domestic Product, High Speed Internet Subscribers, Productivity, Cost of Doing Business, Cost of Energy, State and Local Tax Burden

#### 18. **On-the-Job Injuries and Illnesses**

Benchmark: Maine's reported on-the-job injury and illness rate will get closer to the U.S. rate each year through 2015



## Reported On-the-Job Injuries and Illnesses 2002-2012

## Long-Term Downward Trend Continues for Maine and U.S.

Background: This indicator compares the Maine and U.S. rates of reported on-the-job injuries and illnesses per 100 fulltime workers. The data includes all work-related injuries and illnesses required to be recorded by the Occupational Safety and Health Administration (OSHA), which defines an injury or illness as an abnormal condition or disorder. Maine's rate is the OSHA recordable incident rate for public and private sector establishments.

#### What the Data Shows

- The Maine and U.S. rates each declined from 2011 to 2012, Maine from 5.7 to 5.6 incidents per 100 workers and the U.S. from 3.5 to 3.4.
- The gap between Maine and U.S. rates has declined from 2.8 per 100 workers in 2002 to 2.2 in 2012.
- The relatively hazardous working environment in many manufacturing industries accounts in part for Maine's comparatively high historic rate. The decline of manufacturing sectors over time has contributed to the lowered rate.
- Workplace safety programs throughout Maine have also helped to reduce injury and illness rates.
- · Maine's median days away from work per incident in the private sector have been lower than the U.S. average since 2003.
- Maine's five median days away in 2012 was the lowest among the New England states for which data was available and tied for the lowest in the U.S.

#### Why It Matters

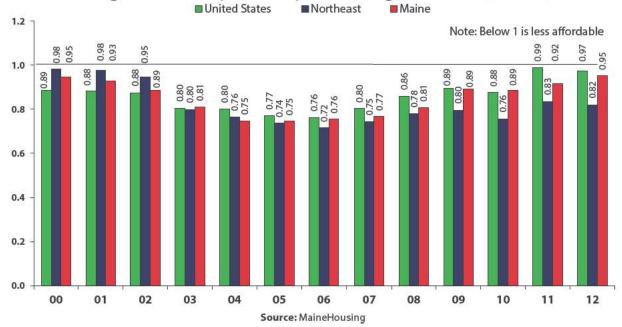
- Workplace safety is an important component of Maine's current economy and of long-term economic growth.
- On-the-job injuries and illnesses diminish workplace and community vitality, limiting the ability of individuals to contribute to the state's economy and the ability of businesses to compete.
- Reducing the incidence of on-the-job injuries and illnesses lowers health costs, increases productivity, and ultimately . increases economic growth.

Related Indicators: Gross Domestic Product, Employment, Productivity, Cost of Doing Business, Cost of Health Care, Wellness and Prevention

	Private Sector Only			
Year	Maine	U.S.		
2003	6	8		
2004	6	7		
2005	5	7		
2006	6	7		
2007	5	7		
2008	6	8		
2009	5	8		
2010	5	8		
2011	5	8		
2012	5	8		

Source: Survey of Occupational Injuries and Illnesses

## Maine's Housing Affordability Index by Year (weighted owner/renter) 2000-2012



### Housing Affordability Continues to Improve in Maine

**Background:** The index used here is the weighted average of MaineHousing's homeownership affordability\* and rental affordability indexes\*\*. 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

- After declining in the middle of the last decade, Maine's housing affordability has improved in recent years.
- Maine's housing affordability index increased from 0.92 in 2011 to 0.95 in 2012.
- Maine's housing affordability was just under the U.S. average, which dropped from 0.99 to 0.97 from 2011 to 2012.
- Maine's housing affordability is still above the New England average, which was essentially unchanged from 2011 to 2012.

#### Why It Matters

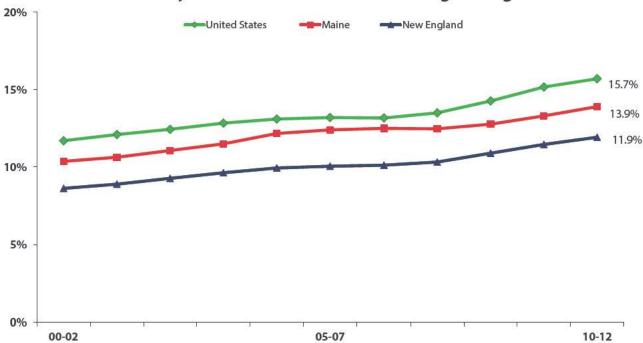
- High housing costs require people to devote more of their incomes to rent or mortgage payments, leaving less
  money for other goods and services.
- · High costs of housing make it difficult for people to relocate for work, affecting employment and job quality.
- In many of Maine's employment centers, people may find it difficult to afford to live in the communities in which they
  work. The associated long commutes and dispersed development impose individual and societal costs, including
  maintenance of transportation infrastructure, energy costs, and community infrastructure like schools.
- The most recent recession has affected both housing prices and incomes. With both home values and incomes
  falling, Maine's delinquent mortgage rates climbed during this period, although they remained below national levels.

\*The homeownership affordability index is the ratio of the home price that a Maine household at median income can afford to the actual median home price. A home price is considered to be affordable if no more than 28% of monthly gross income is needed to cover payment on a 30-year mortgage with a 5% down payment (including taxes, homeowners insurance, and private mortgage insurance).

\*\*The rental affordability index is 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. A rental is considered to be affordable if no more than 30% of gross monthly income is needed to cover the rent. In this index, median rental household income is used rather than median household income generally, because typically the median income of renter households is 25 to 35% less than households overall.

#### Related Indicators: Per Capita Personal Income, Employment, Transportation Infrastructure





#### Poverty Rates 2000-2012 3-Year Moving Average

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

### **Reducing Poverty Rates a Key to Improving Maine's Economy**

**Background:** This indicator tracks three-year moving average poverty rates for Maine, New England, and the U.S., poverty rates since 2000 for children under 5 and under 18 for Maine and the U.S., and 2012 poverty rates by Maine county. Poverty is likely to remain a concern for the foreseeable future.

#### What the Data Shows

- From 2011 to 2012, Maine's rate grew from 13.3% to 13.9%, the U.S. rate from 15.2% to 15.7%, and the New England rate from 11.5% to 11.9%.
- Maine's poverty rate has been below the national rate but above the New England rate since 2000.
- Poverty rates increased in eleven Maine counties and decreased in four from 2011 to 2012; Knox County was unchanged.
- Poverty rates for children under 5 increased in Maine from 24.2% in 2011 to 24.5% in 2012, and declined from 25.8% to 25.6% in the U.S.
- Poverty rates for children under 18 increased in Maine from 19.3% in 2011 to 19.8% in 2012, while the U.S. was essentially unchanged at 22.6%.
- Poverty rates vary widely within Maine. Rates are generally higher in the rural rim counties in the west, north, and east, and lower in southern and coastal Maine.
- From 2011 to 2012, the overall poverty rate increased in three coastal counties, decreased in three, and was even in one; increased in two out of three central counties; and increased in three rim counties and decreased in three.

#### Why It Matters

- Poverty rates are an important indicator of overall economic health.
- Lowering poverty rates makes it easier for people to afford basic items and enables them to enjoy a higher quality of life. It also gives more Mainers a solid foundation on which to improve other outcomes like educational attainment, food insecurity, health status, and employment, ultimately improving the economy as a whole.

(continued on next page)

## 20. Poverty (Continued)

	Rate Children U Maine	U.S.		ate by Maine County	
2000	12.9%	16.2%	County	Poverty Rate	
2000	12.9%	16.2%	Coast	tal Counties	
	14.2%	16.3%	-		
2002	14.2%	17.6%	York	11.4%	
2003	14.3%	17.8%	Cumberland	11.4%	
2004	16.7%	18.5%		44.494	
2005	16.9%	18.3%	Sagadahoc	11.4%	
2000	15.7%	18.0%	Lincoln	14.3%	
2008	16.5%	18.2%	Knox	13.0%	
2009	17.5%	20.0%		General Contract	
2010	18.2%	21.6%	Waldo	17.6%	
2011	19.3%	22.5%	Hancock	13.2%	
2012	19.8%	22.6%	Courts	al Counties	
Poverty	Rate Children U	nder Age 5	Centr		
Toverty	Maine	U.S.	Androscoggin	15.9%	
2000	17.5%	18.7%	Kennebec	14.7%	
2001	16.2%	18.6%			
2002	18.2%	19.0%	Penobscot	17.5%	
2003	18.8%	20.3%	Rim	Counties	
2004	18.4%	20.5%	Oxford	17.8%	
2005	20.0%	21.3%		17.8%	
2006	21.4%	21.0%	Franklin	18.8%	
2007	19.4%	20.8%	Somerset	17.6%	
2008	21.8%	21.2%	- somerset 17.		
2009	21.4%	23.2%	Piscataquis 20.0%		
2010	23.5%	25.0%	Aroostook	16.5%	
2011	24.2%	25.8%			
			Washington	19.4%	

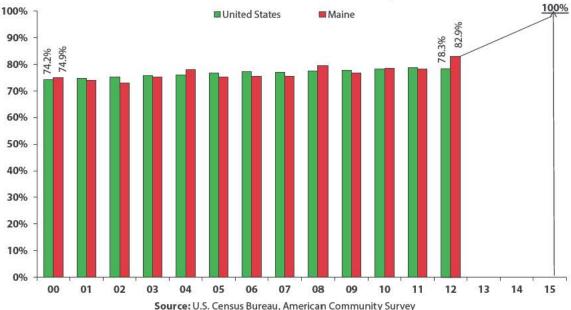
Source: U.S. Census Bureau Small Area Income & Poverty Estimates

- High rates of child poverty create difficult environments during critical formative years which have lasting impacts. Conversely, ensuring that children have a positive environment in early childhood is critical to their future success and Maine's economy.
- Poverty can have powerful effects throughout a person's life (education outcomes, employment, productivity, health and wellness) which affect Maine's economy as a whole.

**Related Indicators:** Per Capita Personal Income, Employment, Higher Degree Attainment, Fourth Grade Reading Scores, Eighth Grade Math Scores, Cost of Health Care, Wellness and Prevention, Food Insecurity

#### 21. **Gender Income Disparity** Benchmark: The median annual income of women working full-time will improve to 100 percent of the median annual income of men working full-time by 2015

## Women's Income as a Percent of Men's for Full-Time, Full-Year Work 2000-2012



## Women's Earnings Make Progress in Maine While Losing Ground in Nation

Background: This indicator compares the median annual incomes for women and men working full-time, full-year in Maine and the nation, and compares the median earnings for Maine women and men in the Maine industries with the highest percent of female employees and highest median female wages.

#### What the Data Shows

- In 2012, women in Maine earned \$0.83 for every dollar earned by men, compared to \$0.78 in 2011.
- Median annual income for Maine women increased from \$34,606 in 2011 to \$35,086 in 2012 while men's median income declined from \$44,260 to \$42,335.
- In 2012, women in the U.S. earned \$0.78 for every dollar earned by men, compared to \$0.79 in 2011.
- Women's earnings in Maine have improved from 74.9% of men's earnings in 2000 to 82.9% in 2012, while earnings for women in the U.S. have improved from 74.2% of men's earnings to 78.3%.
- In Maine, women's earnings were well below men's earnings in many of the industries with the highest percentages of female employees and the highest median wages for females.

#### Why It Matters

- The wage gap varies across age, race, education level, marital status, and occupation, but the overall pattern of women earning less than men persists throughout the labor market due primarily to occupational segregation and wage discrimination.
- The disparity results in significantly lower lifetime earnings for women, impacting women individually and limiting their contributions to Maine's economy.
- Nationally, the average woman will lose an estimated \$431,000 over a 40-year career due to the gender wage gap, according to the Center for American Progress.
- Wage disparities are lower for women with at least four years of college education. However, a 2012 American Association of University Women study found that, nationwide, women one year out of college who were working full-time earned less than their male counterparts.

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## 21. Gender Income Disparity (Continued)

Maine Industries with Highest Percent Female Employees 2012				
Industry	Percent Women in Industry	Median Wage for Men	Median Wage for Women	Women's Earnings as % of Men's
Health Care and Social Assistance	80%	\$41,087	\$29,399	71.6%
Educational Services	68%	\$37,465	\$30,588	81.6%
Finance and Insurance	67%	\$57,313	\$37,038	64.6%
Accommodation and Food Services	57%	\$14,454	\$11,971	82.8%
Other Services, Except Public Administration	54%	\$30,240	\$16,022	53.0%
Retail Trade	49%	\$26,358	\$16,681	63.3%
Information	49%	\$40,020	\$30,593	76.4%
Professional, Scientific, and Technical Services	48%	\$57,688	\$35,964	62.3%
Real Estate and Rental and Leasing	46%	\$32,223	\$26,632	82.6%
Arts, Entertainment, and Recreation	44%	\$21,961	\$13,193	60.1%

Source: U.S. Census, 2010-2012 American Community Survey 3-Year Estimates

Maine Industries with Highest Median Female Wages 2012				
Industry	Percent Women in Industry	Median Wage for Men	Median Wage for Women	Women's Earnings as % of Men's
Utilities	18%	\$58,370	\$45,069	77.2%
Mining, Quarrying, and Oil and Gas Extraction	6%	\$51,855	\$41,354	79.7%
Transportation and Warehousing	24%	\$40,396	\$37,332	92.4%
Finance and Insurance	67%	\$57,313	\$37,038	64.6%
Professional, Scientific, and Technical Services	48%	\$57,688	\$35,964	62.3%
Public Administration	43%	\$49,487	\$35,945	72.6%
Information	49%	\$40,020	\$30,593	76.4%
Educational Services	68%	\$37,465	\$30,588	81.6%
Health Care and Social Assistance	80%	\$41,087	\$29,399	71.6%
Wholesale Trade	25%	\$42,864	\$29,162	68.0%

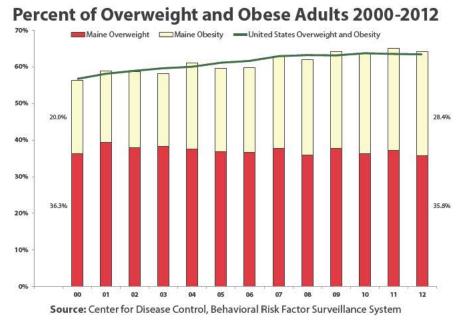
Source: U.S. Census, 2010-2012 American Community Survey 3-Year Estimates

- Some higher-earning occupations offer more equal pay and may be desirable options for women.
- Nationwide, women earned more than men in only four out of 111 occupations with sufficient data to calculate the wage gap, according to a 2011 Institute for Women's Policy Research study.
- Women are more likely than men to be single heads of households, making it more difficult to provide for children and affecting childhood poverty rates.
- Reducing the wage gap benefits Maine's people and economy in a number of ways. This requires a multi-faceted approach that reduces occupational segregation, expands career choices for women, enforces equal employment laws, and eliminates workplace harassment and discrimination.

**Related Indicators:** Per Capita Personal Income, Gross Domestic Product, Employment, Productivity, Higher Degree Attainment, Poverty, Food Insecurity

# 22. Wellness and Prevention Benchmark: The percent of overweight and obese adults in Maine will decrease to 50% by 2015





## Nearly Two-Thirds of Maine Adults Remain at Risk

**Background:** Being overweight or obese is the third leading cause of preventable deaths in Maine and the nation. Overweight (Body Mass Index of 25.0 to 29.9) and obese adults (Body Mass Index greater than or equal to 30) are at increased risk for diabetes, heart disease, stroke, high cholesterol, asthma, arthritis, and some cancers. The risk increases with weight.

#### What the Data Shows

- Nearly two-thirds (64.2%) of Maine adults were either overweight or obese in 2012 compared to 56.3% in 2000.
- Maine's overweight rate was stable from 2000 to 2012, while the obesity rate grew from 20.0% to 28.4%.
- Maine's overweight rate declined from 37.2% to 35.8% from 2011 to 2012, while the obesity rate increased from 27.8% to 28.4%.
- Overweight and obesity rates have increased in the U.S., but Maine's increase has exceeded the national average.
- The combined U.S. overweight and obesity rate has been around 63% since 2008, up from 56.7% in 2000.
- Childhood obesity in Maine is also a concern, with approximately one-third of Maine children considered overweight or obese. These children are more likely to be obese as adults.

#### Why It Matters

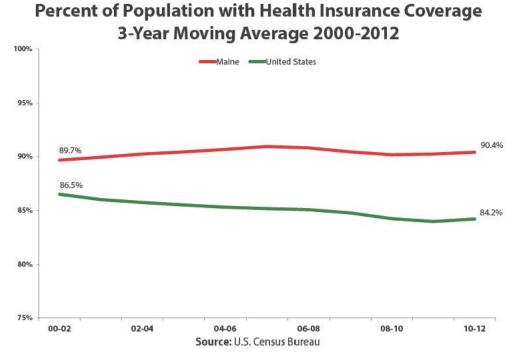
- Obesity is highly correlated with many health problems (cardiovascular disease, asthma, hypertension, diabetes, and joint degeneration) which are being found at younger ages, especially among lower income populations.
- There are significant economic costs associated with Maine's high overweight and obesity rates.
- Overweight and obesity in Maine have been found to drive \$767 million annually in medical expenses and result in annual productivity losses of \$2 billion.
- Reducing Maine's overweight and obesity rates is a key part of improving our overall health and wellness, which is needed to control health care costs, improve productivity, and improve the quality of life of Maine citizens.
- Appropriate policies and public education that encourage healthy behaviors and improve access to healthy food choices are needed.
- Employers are increasingly using wellness plans and insurance programs to promote healthy behaviors.
- Fully engaging all of the relevant sectors is critical to reversing Maine's upward trend.

# **Related Indicators:** Productivity, Cost of Doing Business, Cost of Health Care, On-the-Job Injuries and Illnesses, Poverty, Health Insurance Coverage, Food Insecurity

23.

## Health Insurance Coverage

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



## Maine Continues to Exceed the National Average on Health Insurance Coverage

**Background:** Maine has made insurance available to a large majority of people. Passage of the federal Affordable Care Act with the opening of the new health insurance Marketplace with subsidized coverage for Maine people meeting the income eligibility will have dramatic impacts on insurance coverage in both Maine and the nation this year.

#### What the Data Shows

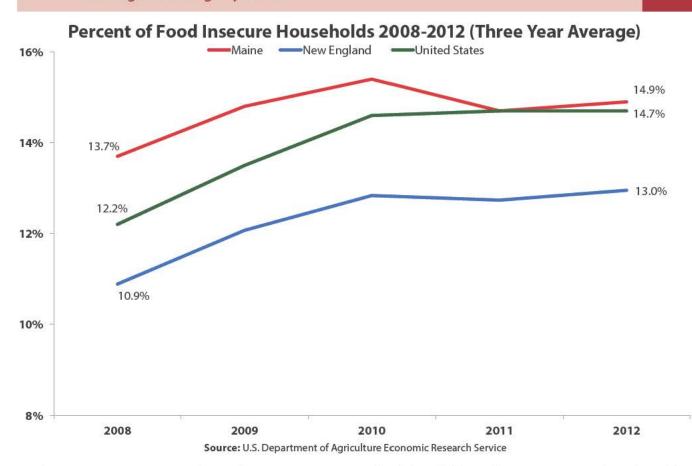
- Maine remained well ahead of the nation in insurance coverage in 2012.
- Since 2002-04, Maine's three-year moving average has been approximately 90% and the U.S. average has been at or around 85%.
- Kaiser Foundation data on the type of health insurance coverage for Mainers was largely unchanged from 2011 to 2012. In 2012, 23% of Mainers were covered by Medicaid compared to 22% in 2011, and 13% were covered by Medicare compared to 14% in 2011.
- National numbers were very similar, with the exception of Medicaid. Maine's higher Medicaid rate accounts for Maine's higher overall coverage rate.

	opulations 2012		
	U.S.	Maine	
Employer	48%	48%	
Individual	5%	4%	
Medicaid	16%	23%	
Medicare	14%	13%	
Other Public	1%	2%	
Uninsured	15%	10%	

#### Why It Matters

- Widespread health insurance lowers barriers to appropriate preventive and timely medical care which can avoid higher future medical costs. This enables people to live healthier, more productive lives.
- Rising insurance and health care costs continue to make it difficult for Maine and national employers to offer affordable health insurance and for individuals to purchase on the open market.
- With rising health care costs, financing both public and private insurance programs will continue to be a challenge.
- As Maine's population ages, an increased share will be enrolled in the federal Medicare program.
- Low-income people 65 and older and some younger individuals with disabilities are eligible for both MaineCare and Medicare. Because MaineCare pays for most long-term care, that program may see additional cost increases that parallel the aging population.

#### Related Indicators: Employment, Productivity, Cost of Doing Business, Cost of Health Care, Wellness and Prevention, Food Insecurity



# Maine's Percentage of Food Insecure Households Higher than New England and U.S. – Improvement Needed to Move Other Outcomes

**Background:** Food insecurity is measured annually by the U.S. Department of Agriculture (USDA) Economic Research Service using U.S. Census data. Food secure households have consistent, dependable access to enough food for active, healthy living. Conversely, food insecurity is marked by reports of disrupted eating patterns, reduced food intake, and reduced quality or variety of diet. The issue is linked to yet distinct from poverty levels.

#### What the Data Shows:

- Maine's food insecurity rate grew from 13.7% of households in 2008 to 14.9% in 2012, peaking at 15.4% in 2010.
- Maine's 2012 rate of 14.9% means that approximately 200,000 Maine residents lack consistent, affordable access to nutritious food.
- Feeding America reported in 2013 that nearly one in four (23.9%) Maine children are food insecure.
- The 126<sup>th</sup> Legislature passed a bill requiring schools holding summer activities and in which over half the students qualify for free or reduced lunch to offer the USDA's Summer Food Services Program.

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## 24. Food Insecurity (Continued)

#### Why It Matters:

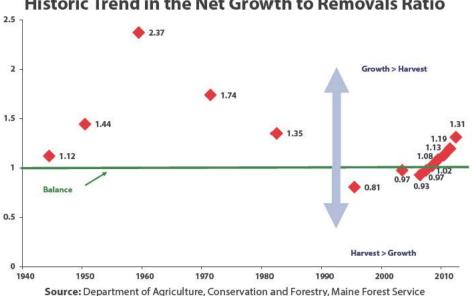
- Food insecurity has a significant impact on the health of Maine's population and economy.
- Children ages 0 3 who are food insecure are 90% more likely to have their health described as "fair/poor" versus "excellent/good" and 31% more likely to have been hospitalized.
- Children who lack access to nutritious food incur developmental impairments that limit their physical, intellectual, and emotional development during their most formative years.
- Food insecurity at kindergarten predicts impaired academic performance in both math and reading for boys and girls (see those indicators in this report).
- Among 6 12 year-olds, food insecurity is associated with lower math scores, grade repetition, absenteeism, tardiness, visits to a psychologist, anxiety, aggression, psychosocial dysfunction, and difficulty getting along with other children.
- Children who are food insecure at any point during the toddler years are 3.4 times more likely to be obese by age 5.
- It is estimated that food insecurity costs the national economy \$167.5 billion per year in direct and indirect costs associated with poor health, lowered educational outcomes and earnings potential, and the value of charitable contributions given to combat the problem of hunger.
- In Maine, the cost of food insecurity is estimated at \$787 million per year.
- Eliminating "food deserts" where affordable and healthy food is difficult to obtain can help make affordable and healthy food more readily available.
- Supporting the work of programs like Good Shepherd Food Bank is important to reducing insecurity.
- During the 2012 school year, 46.1% of children in Maine schools received meals through the National School Lunch Program. Of those who participated in school lunch, 54.5% received breakfast and 17.5% received meals during the summer.
- Increasing the level of participation in breakfast and summer meal programs among eligible Maine students can help to lower food insecurity among this particularly vulnerable population.

**Related Indicators:** Per Capita Personal Income, Gross Domestic Product, Employment, Productivity, Higher Degree Attainment, Fourth Grade Reading Scores, Eighth Grade Math Scores, Cost of Health Care, Wellness and Prevention

#### 25. Sustainable Forest Lands

Benchmark: The balance of net growth to removals will be maintained over time near a 1:1 growth to removals ratio





## Historic Trend in the Net Growth to Removals Ratio

## Growth to Removals Ratio Indicates Sustainable Management Continues

Background: For this indicator, a net growth ratio value greater than one indicates that growth is greater than harvest, while a net growth ratio value less than one indicates that harvest exceeds growth. Minor fluctuations around the ideal ratio of 1:1 are acceptable, provided that wide variations in either direction are avoided and the long-term trend is neutral.

The ratio peaked in 1959 at an unsustainable ratio of 2.37. Over the next 36 years (1959 – 1995) multiple impacts, including a maturing forest, the spruce budworm epidemic, and harvesting, brought the ratio on a decline to an undesirable value of 0.81 in 1995. Since then, the ratio has had steady improvement, crossing the 1:1 balance point in 2008. Since 1990, the harvest of forest products (sawtimber, pulpwood, firewood, and biomass) has ranged from 17.2 to 19.7 Million Green Tons. Over this period, the mix and individual contribution of various products has shifted to meet market demands. Despite this historic high level of sustained harvest, the growing stock inventory has increased 14% since 1995, and at a current level of 23.8 Billion Cubic Feet (BCF) is again approaching the apex measured in 1982 of 24.1 BCF.

#### What the Data Shows

The 2012 net growth to removals ratio is 1.31:1 and the indicator continues to meet the benchmark.

#### Why It Matters

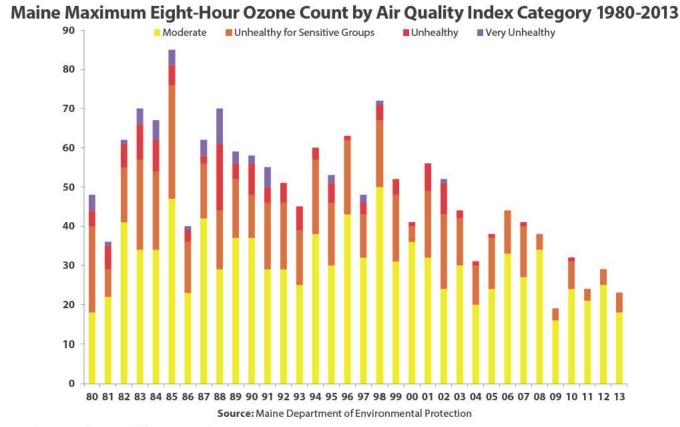
- · Sustainable forestry is essential to Maine's economy, identity, and quality of life, particularly with the mounting concern over the future of Maine's forest lands.
- Maine's forests cover 89% of the state's land area, with 94% of this acreage actively managed by private landowners.
- Maine enjoys a tradition of private ownership and public access of forest lands.
- Maine's forests support healthy wildlife populations, provide clean water, supply raw materials used to create products ranging from newspaper to alternative fuels, and offer a wide variety of recreational opportunities that help support the state's outdoor recreation industry.
- 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.
- Maine's forests play an important role in the quality of Maine's air and water as measured by those indicators in this report.
- Together, the Environment indicators are important measures of how well the state is conserving resources and supporting our natural resource-based economy.

#### Related Indicators: Gross Domestic Product, Employment, Air Quality, Water Quality

## Air Quality

26.

**Benchmark:** Maine's overall number of days that fall into one of the listed categories and the severity of the health categories will continue to decline through 2015



## Maine's Air Quality Continues to Improve

**Background:** The air quality indicator is based on ozone levels averaged over an eight-hour period in parts per billion, which are measured by a network of monitors recording concentrations of major pollutants throughout the state. The data is based on the highest value in the state for each day and the number of times that maximum value falls into each air quality index category (good, moderate, unhealthy for sensitive groups, unhealthy, and very unhealthy).

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 national ambient air quality standard of 75 since 2010.

#### What the Data Shows

- Maine's air quality has improved as both the number and severity of unhealthy air quality days have decreased.
- In 1983, 70 days fell into one of the designated health risk categories, and four days fell into the "very unhealthy" category.
- In 2013, a total of only 23 days fell into the designated categories, and no days fell into the "unhealthy" or "very unhealthy" categories.

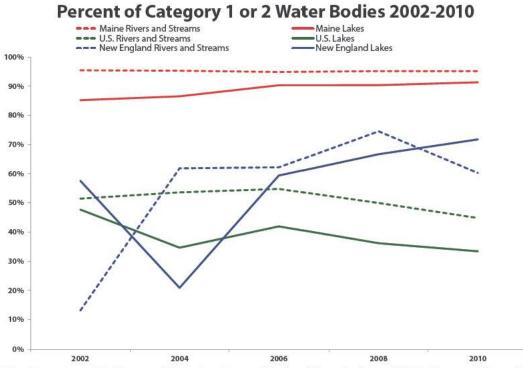
#### Why It Matters

- Maine's air is on average cleaner than the rest of the nation and can help to attract people and businesses to the state.
- Due to our location, the quality of Maine's air is dependent on actions outside of our state as well as within our state. Nevertheless, Maine's air quality has important impacts for the health of Maine people, our quality of life, and our economy.
- The changing nature of Maine's economy, particularly the decline of manufacturing industries, affects the quality of our air, as do policies at the state and national level.

Related Indicators: Cost of Health Care, Workforce, Wellness and Prevention, Sustainable Forest Lands, Water Quality

## 27. Water Quality

**Benchmark:** The percentage of Maine's assessed water bodies classified as Categories 1 and 2 will increase each year through 2015



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

## Maine's Waters Cleaner than U.S. Average

**Background:** The chart compares water quality in Maine and the U.S. and Environmental Protection Agency (EPA) Region 1 (the New England states) average. The Maine Department of Environmental Protection reports the water quality for Maine's rivers and streams and lakes and ponds to the U.S. EPA every two years. Assessed waters are classified into one of five categories. Categories 1 and 2 are waters for which all or some designated uses and water quality standards are attained, and are approximately equivalent to the EPA's "good" classification. Unfortunately, no update to the data is available for this report.

#### What the Data Shows

- From 2002 to 2010, approximately 95% of Maine's assessed river and stream miles, and between 85% and 90% of Maine's assessed lake and pond acreage, met the Category 1 or 2 water quality classifications.
- Over the same time, between 45% and 55% of U.S. rivers and streams met the EPA's "good" threshold.
- From 2002 to 2010, between 33% and 48% of U.S. lakes met the "good" threshold.
- Over the same time, the percentage of rivers and streams meeting the "good" criteria in New England fluctuated between 13% and 75% and the percentage for lakes between 21% and 72%.

#### Why It Matters

- The Water Quality and Air Quality indicators address the quality of Maine's environment relative to the rest of the U.S.
- A clean environment is an important part of Maine's image and brand both in our state and in the world beyond and helps Maine businesses seeking to sell their products beyond our borders.
- Maine's environment is a critical part of our quality of life that affords us a competitive advantage in attracting people and employers to our state and supports a vibrant tourism economy.
- Clean air and water also positively impact the health of Maine's people.
- As noted in the Sustainable Forest Lands indicator, Maine's forests play an important role in the quality of Maine's waters.

**Related Indicators:** Gross Domestic Product, International Exports, Productivity, Cost of Health Care, Wellness and Prevention, Sustainable Forest Lands, Air Quality

#### CITING INFORMATION IN THIS REPORT

Reproduction of the information in *Measures of Growth In Focus* is encouraged with proper citation. Wherever data or text is reproduced, please reference the source as: "Data source: Maine Economic Growth Council and Maine Development Foundation, *Measures of Growth In Focus 2014.*"

#### ON THE WEB

*Measures of Growth In Focus 2014* is available on the website of the Maine Development Foundation in Adobe portable document format (PDF) for easy download and printing. Visit the Maine Economic Growth Council through the homepage of the MDF website at <u>www.mdf.org</u>.

#### BACKGROUND AND ACKNOWLEDGEMENTS

The Growth Council is co-chaired by Tim Hussey, President and CEO of Hussey Seating Company, and State Senator Eloise Vitelli. The Growth Council was established in statute by the Governor and Legislature in 1993 to develop a vision and goals for the state's long-term economic growth. Its members include representatives of the private, public, education, labor, and nonprofit sectors, four legislators, and the Commissioner of the Department of Economic and Community Development. Members are jointly appointed by the Governor, Senate President, and Speaker of the House.

This is the 20<sup>th</sup> annual edition of *Measures of Growth In Focus*. It is one of the most widely used and respected reports on Maine's economy. The report has been revised over the years to provide readers with the most up-to-date overview of Maine's progress toward long-term, sustainable economic growth, and a high quality of life for all Maine people. In recent years, the Council has included only what it deems the most critical factors impacting the vision of this report.

The Maine Economic Growth Council is administered by the Maine Development Foundation, which was created by the Legislature and Governor in 1978 as a private, nonprofit corporation with a broad mandate to promote Maine's economy. Maine Development Foundation Program Director Ryan Neale administered Growth Council meetings and researched and authored the report. Lauren Mier was the graphic designer. J.S. McCarthy printed the report.

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## Maine Economic Growth Council Members, 2013 - 2014

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Susan Corbett CEO Axiom Technologies

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