

# Measures of Growth In Focus



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

TWELFTH REPORT OF THE MAINE ECONOMIC GROWTH COUNCIL

Prepared by the Maine Development Foundation

# VISION

# A high quality of life for all Maine citizens.

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

## 2006 Performance Measures of the Maine Economic Growth Council

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#### PROGRESS SYMBOLS

Determining which performance measures receive Gold Stars and Red Flags are judgment decisions 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 perspectives of Growth Council members. Generally, criteria are as follows:

Exceptional performance.

Very high national standing and/or established trend towards dramatic improvement.

#### Needs attention.

Very low national standing and/or established trend towards dramatic decline. In some cases, there is improvement but it is still viewed as needing attention. The progress symbols reflect movement toward or away from the benchmarks. The benchmarks are established by the Growth Council and determining progress is done objectively each year by reviewing the most recent trend. 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

## Introduction: Maine and the New Economy

We hear a lot these days about sweeping changes in the economy. Rapid technological and educational advancement has spawned a host of popular theories, including claims that "the world is flat," and that we live in a new "global economy," "knowledge economy," and "creative economy." What all of these arguments have in common is that societies must upgrade their human capital—in other words, they must invest in their people—if they are to succeed in an increasingly competitive environment.

Maine is no exception to this rule. The state must encourage its citizens to develop their knowledge and creativity in order to add greater value to what they produce. By making this effort, Maine can attract jobs to replace those lost in its traditional manufacturing sector that, as a result of global economic forces, continues to decline.

What is Maine doing to help cultivate its most precious resource-Maine people? It is investing considerable resources in research and development, for one. The Maine Economic Growth Council awards R&D a Gold Star for exceptional performance in this year's Measures of Growth report. Maine also is looking out for the wellness of its citizens, as demonstrated by its high rate of health insurance coverage. This measure also receives a Gold Star from the Council. The rate of on-thejob injuries has dropped consistently over the last several years, for which the Council awards another Gold Star. Other areas show progress as well. New business starts appear to be rebounding. The death rate from cardiovascular disease is coming down. Conservation and well-managed forest lands are increasing. The number of high-speed internet subscribers per one thousand people in Maine increased 574 percent from 2000 to 2004. Moreover, the number of higher degree holders in Maine increased every year from 2001 to 2004.

On the flipside, what is happening in Maine that is limiting the full potential of its people? Housing affordability continues to be a problem. The cost of housing in Maine's metropolitan settings is driving people out of these creative hubs. The Growth Council highlights this dilemma with a Red Flag in this year's Affordable Housing measure. The Cost of Doing Business is also a hindrance. The Tax Burden and The Cost of Health Care factor into this measure. Each of these two indicators receives a Red Flag from the Growth Council for 2006. Personal income challenges appear to be an issue, as 30 percent more Mainers than Americans as a whole held multiple jobs in 2004. The Council highlights this trend with a Red Flag as well. Still other distressing signals exist. Manufacturing productivity is well behind the U.S. level. Sprawl is expanding. Lastly, women continue to lag far behind in personal income relative to their male counterparts.

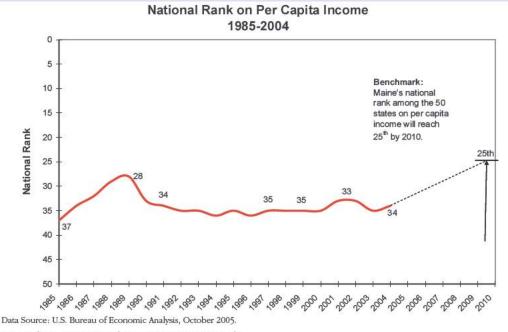
Overall, the 2006 *Measures of Growth* report shows that Maine is on the right track in some areas, yet needs appropriate attention in others. The bottom line is that the state must continue to focus its energy and resources on building its base of talent. Maine must also improve its business climate, strengthen its urban areas, and effectively manage the development of its natural environment. Through these steps, the state can position itself favorably in the new economy in which it operates.

The challenges before Maine and Maine people are considerable, but there are reasons for optimism.

We hope you enjoy and benefit from this 12<sup>th</sup> annual edition of *Measures of Growth*.

## 1. Personal Income

# Benchmark: Maine's national rank among the 50 states on per capita income will reach 25th by 2010.



#### Personal Income Ranking Remains Steady

In 2004, Maine ranked 34th in the nation on per capita personal income. Maine has consistently ranked in the low to mid-thirties nationally since the early 1990s.

In 2004, Maine's income per capita (total income earned in the state divided by the state's population) was \$29,973, a 3.1 percent increase in state per capita over 2003. By comparison, per capita income in the U.S. in 2004 was \$33,041, up 4.9 percent from 2003. New England per capita income grew substantially from 2003 to 2004, at 5.9 percent from \$38,026 to \$40,269. New England has the highest per capita income of any region in the country, with Connecticut, Massachusetts and New Hampshire ranking first, second and sixth, respectively, nationwide in 2004.

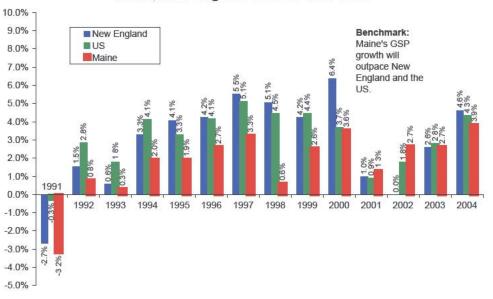
Increasing personal income is fundamental to achieving a high quality of life for Maine citizens. It is also a direct reflection of economic growth and prosperity. Higher incomes stimulate consumer spending, create greater savings, and ease problems such as tax burden and household debt. Higher incomes also allow people to secure a foundation, whether that is housing, health insurance, or a car to drive to work.

Income is derived from wages and salaries, but it also comes from other sources such as returns on investments and transfer payments from the government. Personal income differences between states should be viewed with population densities in mind. There is a correlation between a state's population density and its per capita income; generally, the lower the population density, the lower the income. In addition, it should be noted that the cost of living, driven in large part by housing, taxes and energy costs, varies widely by state.

The Growth Council has set a new goal of Maine ranking 25th in personal income by 2010. The Council notes that its previous benchmark of ranking 25th by 2005 is highly unlikely to happen. Nevertheless, the Council believes that a rank of 25th is attainable, given that Maine ranked 28th nationally in 1989.

## 2. Gross State Product

## Benchmark: Maine's Gross State Product growth will outpace New England and U.S. growth.



#### Gross State Product Growth Rate Maine, New England and US 1991-2004

Data Source: U.S. Bureau of Economic Analysis, December 2005.

#### GSP Growth Rate in Maine Slower than New England and U.S.

Maine's real (inflation adjusted) Gross State Product (GSP) grew 3.9 percent in 2004. During the same time period, the New England economy grew 4.6 percent, while the U.S. experienced 4.3 percent growth.

GSP is the value added in production by labor and property located in a state. It is a fundamental measure of economic health, and the primary determinant of the extent to which an economy is growing or in recession. The sum of value added in all industry sectors totals GSP.

Industry Sector	GSP Millions of Dollars	
Government	\$5,329	
Real estate, rental, and leasing	\$5,187	
Manufacturing	\$5 104	
Health care and social assistance	\$3,876	
Retail trade	\$4,237	
Finance and insurance	\$2 694	
Wholesale trade	\$2,181	
Construction	\$1,617	
Professional and technical services	\$1,773	
Accommodation and food services	\$1 206	
Information	\$1,299	
Transportation and warehousing, excluding Postal Service	\$932	
Other Services	\$846	
Utilities	\$831	
Administrative and waste services	\$864	
Agriculture, forestry, fishing, and hunting	\$554	
Management of companies and enterprises	\$474	
Educational services	\$308	
Arts, entertainment, and recreation	\$307	
Mining	\$4	
Total	\$39,623	

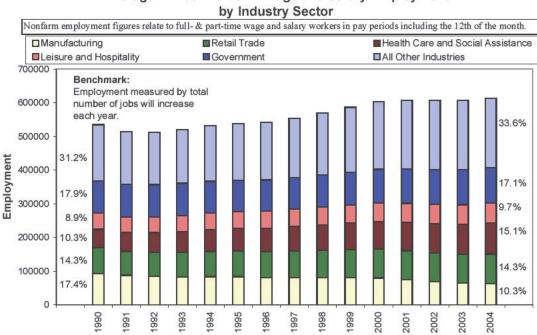
State Draduct by Majar Industry, Caster 2004

As the graph illustrates, throughout the

1990s Maine's economy grew at a significantly slower pace than both the region's and the nation's. Maine's growth then increased and nearly matched that of the U.S. in 2000, and outpaced both the U.S. and New England in 2001 and 2002. However, beginning in 2003, New England and the U.S. caught up, and by 2004 both surpassed Maine.

The table to the right of the page shows the relative contribution to GSP by major industry sector in Maine.

#### Benchmark: Employment as measured by the number of total 0 jobs will increase each year.



Average Annual Nonfarm Wage and Salary Employment

Data Source: Maine Department of Labor, Division of Labor Market Information Services, December 2005.

#### Employment up Overall, Despite Manufacturing Sector's Decline

From 2003 to 2004, Maine's overall employment grew 1.2 percent, from 606,800 to 613,900 jobs. In that same time period, manufacturing jobs decreased by 1.6 percent, while all other sectors grew (see table at right).

As the graph above demonstrates, Maine's job composition is changing. 30,000 of Maine's manufacturing jobs were lost from 1990 to 2004. During that same period, however, health care and social assistance jobs increased by 37,000. In addition, leisure and hospitality jobs have grown, while government jobs as a percentage of total employment has shrunk. These shifts are an example of Maine's transition toward a more service-oriented economy.

Global economic forces, including trade agreements, are impacting Maine's employment. Work that can be done at lower cost to employers has shifted to countries like Mexico and China. Much of this work has been in the manufacturing sector. However, outsourcing is not limited to this sector alone. Given a highly

Employment Growth by Sector 2003 2004 Sector Growth Manufacturing -1.6% Retail Trade 2.6% Health 3.8% Leisure 1.4% Government 1.2% Other 0.2% Total 1.2%

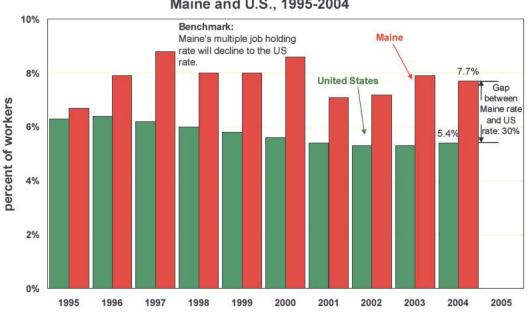
3. Employment

dynamic global labor market, Maine must diversify its employment base in order to compete for jobs. The state must continue to grow its service sectors, as well as its knowledge sectors such as research and development.

While the state's employment gains have been fairly modest, job growth in Maine has outpaced both the New England region and the U.S. for the last seven years.

## 4. Multiple Job Holding

Benchmark: Maine's multiple job holding rate will decline to the US rate by 2010.



## Percent of Workers Holding Multiple Jobs Maine and U.S., 1995-2004

Data Source: U.S. Department of Labor, Bureau of Iabor Statistics, and the Maine Department of Labor, Bureau of Iabor Information Services, January 2006.

## Multiple-job Holders Decreasing Slightly

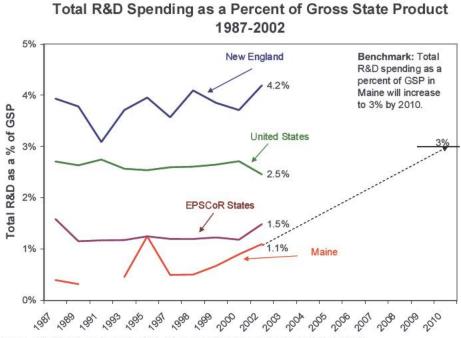
In 2004, 7.7 percent of all Maine workers held two or more jobs, a higher percentage than the national rate of 5.4 percent. Maine was only one of two states in the eastern U.S. (the other was Vermont) where the multiple job holding rate was above 7.6 percent. The 2004 figures represent a gap of 30 percent between the Maine rate and the U.S. rate. Though the gap closed slightly (3 percentage points) from 2003 to 2004, this measure remains well away from the benchmark.

People who have to hold multiple jobs in order to make a living have less time for families, community involvement, and education.<sup>1</sup> The relatively high rate of people in Maine who hold multiple jobs suggests that many jobs are not paying enough, and may be related to the number of livable wage jobs available in the state. Low paying jobs cannot sustain a healthy economy. While some workers may choose second jobs to earn money for non-essentials, it is believed that many work multiple jobs in order to pay for basic needs. The Growth Council chose to include the multiple job holding rate in this year's report in an effort to assess the "job quality" of Maine's employment base.

A recent study by the Bureau of Labor Statistics postulates that "non-financial" factors, such as enjoying a second occupation, may be as strong as financial incentives for people holding multiple jobs. However, the question remains as to why Maine's rate is significantly higher than the U.S. rate and near 8 percent, while the national multiple job holding rate is stable at slightly over 5 percent.

## 5. Research and Development Expenditures

Benchmark: Total research and development investment in Maine will increase to 3 percent of GSP by 2010.



Data Source: PolicyOne Research, October 2005. (please note, there is no Maine data available for 1991)

#### **Research and Development Spending on the Rise**

In 2002, total R&D performance in Maine was 1.1 percent of real Gross State Product (GSP). This is the second time R&D has cleared 1 percent; the only other time occurred in 1995 when a one-time major defense-related investment caused the spike shown in the graph. The graph also shows that total R&D spending rose steadily each year between 1998 and 2002. The Growth Council gives this measure a Gold Star for the recent growth in R&D activity, and for increasing at a rate that will hit the benchmark if it continues.

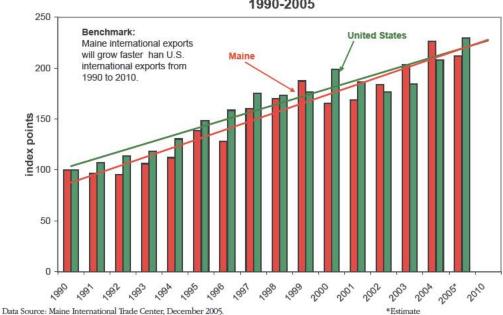
This measure looks at total R&D spending in Maine as a percent of GSP compared with other EPSCoR states (EPSCoR is the Experimental Program to Stimulate Competitive Research, a joint program of the National Science Foundation and several small states, including Maine), the U.S. and New England. This year, the Growth Council has created a new benchmark that sets Maine at 3 percent of GSP by the end of the decade; in other words, slightly more than where the U.S. is presently. The Growth Council determined that a benchmark that strove for the New England rate of R&D spending was unrealistic, given that the Boston area is one of the R&D capitals of the country.

The Growth Council considers the new benchmark as the minimum investment necessary to expand Maine's innovation-driven economy and increase competitiveness with the U.S.. Greater spending in the academic and non-profit sectors, and in particular Maine's private R&D sector, will be required in order to accomplish the goal.

A growing R&D sector in Maine creates a wide range of economic benefits. Chief among them are better jobs, increased government revenues, and a more highly skilled and educated workforce. R&D performance is a key measure for gauging Maine's competitiveness in the knowledge economy.

## 6. International Exports

## Benchmark: Maine's international exports will grow faster than U.S. exports from 1990 to 2010."



International Exports, Maine & U.S. (Indexed from 1990) 1990-2005

#### Maine's Exports Estimated to Slow in 2005

Following an unusual surge in exports during 2004, Maine exports in 2005 are estimated to have slowed. Meanwhile, 2005 U.S. exports are estimated to increase. Maine exported \$250 million worth of oil rigs to Brazil in 2004, an exceptional sale that accounts for part of Maine's impressive export performance in that year. This sale will not be repeated in 2005.

Maine's top five commodity exports through September 2005 were (from first to fifth): electrical machinery (including semiconductors), wood and articles of wood, paper and paperboard, pulp products, and industrial machinery (including computers).

The top five countries importing Maine commodities as of September 2005 were Canada (38.3 percent of Maine exports) and Malaysia (14.4 percent), then Singapore, China (mainland), and South Korea in descending order.<sup>##</sup>

Exports have hovered around 5 to 5.5 percent of Maine GSP over the last few years. In 2001, exports represented 4.9 percent of GSP; in 2004, they were 5.6 percent. By comparison, exports as a percentage of U.S. GSP vacillated between 6.5 and 8 percent from 2001 to 2004.

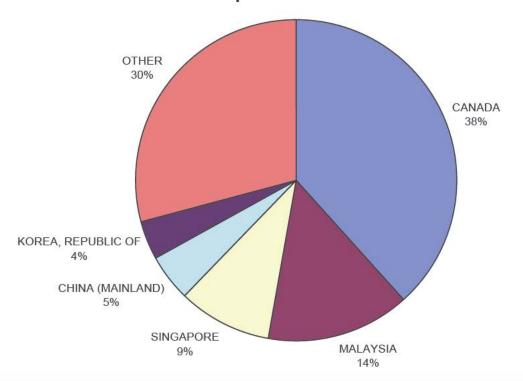
From 1990 through fall 2005, Maine exports as a percentage of GSP has been converging steadily with national exports as a percentage of Gross Domestic Product. This trend shows that Maine is increasing its integration into the global economy, and is closing in on the U.S. level of export activity.

This measure is a representation of Maine's competitiveness in the era of globalization. Since the end of World War II, agreements between countries and regions have led to more free trade and, overall, greater prosperity for those who engage in trade. The expansion of Maine's exports is a positive sign that the state is taking advantage of increasing commercial opportunity abroad.

# 6. International Exports (Continued)

Major Exported Commodities, 2000-Sept 2005 ytd in Millions of Dollars						
Commodity	2000	2001	2002	2003	2004	2005 Sept ytd
ELECTRIC MACHINERY ETC; SOUND EQUIP; TV EQUIP; PTS	356	342	511	567	668	393
PAPER & PAPERBOARD & ARTICLES (INC PAPR PULP ARTL)	238	254	234	237	267	197
WOOD AND ARTICLES OF WOOD; WOOD CHARCOAL	255	263	250	258	286	198
PULP OF WOOD ETC; WASTE ETC OF PAPER & PAPERBOARD	143	104	157	185	171	133
FISH, CRUSTACEANS & AQUATIC INVERTEBRATES	186	180	179	200	201	57
INDUSTRIAL MACHINERY, INCLUDING COMPUTERS	124	144	150	141	104	85
SHIPS, BOATS AND FLOATING STRUCTURES	3	6	5	6	257	5

## Top Importers of Maine Goods September 2005 YTD

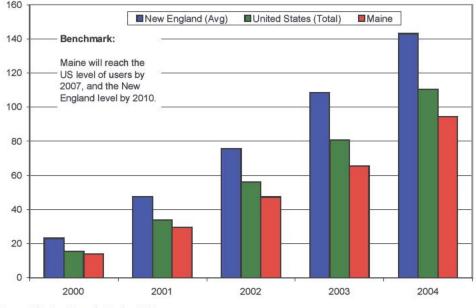


Prepared by the Maine Development Foundation for the Maine Economic Growth Council, January 2006. 9

## 7. High Speed Internet Access

Benchmark: Maine will reach the U.S. level of high speed internet subscribers by 2007 and the New England level by 2010.





Data Source: PolicyOne Research, October 2005.

#### High Speed Internet Subscribers Increasing, but Lagging Behind Region and U.S.

Between 2000 and 2004, Maine increased its number of high speed internet subscribers significantly. In 2000, the number of subscribers was 14 per one thousand people; in 2004, it was 94.3. Maine increased its number of high speed internet subscribers per one thousand people by 574 percent over this four-year period.

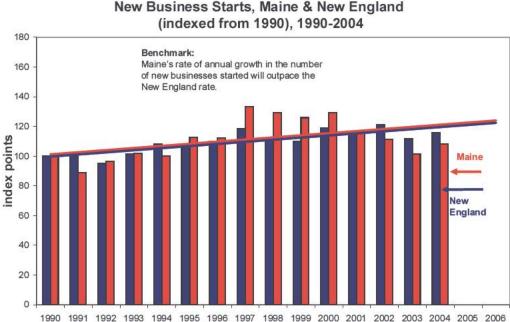
Despite this positive trend, U.S. subscribers grew even faster. U.S. subscribers grew from 15.5 in 2000 to 110.5 in 2004, for an increase of 614 percent. New England's subscription levels rose from 23.1 to 143.1 over the same period, for an increase of 520 percent. Given these trends, Maine dropped from 20th nationally for this measure in 2000 to 30th in 2004.

The gap between subscribers in Maine and the U.S., as well as the one between Maine and New England, widened from 2000 to 2004. If U.S. and New England trends continue, Maine will have to increase its subscribers at a faster rate if it is to hit the benchmark set by the Council.

Connectivity in all its forms is a critical aspect of economic development. The Growth Council chose to highlight the internet as an example of Maine's connectivity this year. More people accessing the information superhighway, and connecting with others through e-mail, makes Maine more competitive in the global, knowledge-based economy.

## 8. New Business Starts

# Benchmark: Maine's rate of annual growth in the number of new businesses started will outpace the New England rate.



Data Source: U.S. Small Business Administration, Office of Advocacy, October 2005.

#### New Business Starts in Maine Rebound

In 2004, 4,300 new businesses started in Maine, a growth rate of 6.2 percent over the previous year." New business starts across New England increased 3.6 percent over the same period. The growth trends of Maine and New England between 1990 and 2004 are virtually identical" (see chart at right for yearly growth rates).

New business starts in Maine peaked between 1997 and 2000, and then experienced a decline from 2001 to 2003. It is a positive sign that the state and the region as a whole rebounded in 2004 from contractions in new business starts.

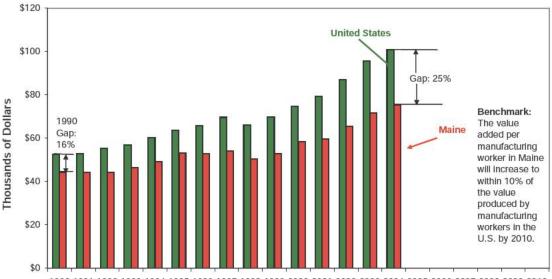
This measure is an indicator of the vibrancy of the economy. Growth in new business starts demonstrates entrepreneurialism, job opportunity and business vitality.

An	Annual Growth				
	ME	NE			
1990	-11.1%	-12.3%			
1991	-11.2%	0.3%			
1992	8.5%	-5.0%			
1993	5.9%	6.7%			
1994	-1.8%	6.5%			
1995	12.4%	-0.4%			
1996	-3.0%	2.0%			
1997	18.7%	8.0%			
1998	-3.0%	-6.2%			
1999	-2.5%	-1.2%			
2000	2.5%	7.7%			
2001	-10.0%	-3.8%			
2002	-5.4%	5.4%			
2003	-9.8%	-8.6%			
2004	6.2%	3.6%			

## 9. Manufacturing Productivity

Benchmark: The value added per manufacturing worker in Maine will increase to within 10% of the value added per manufacturing worker in the U.S. by 2010.

> Manufacturing Value Added per Manufacturing Worker Maine and U.S. 1990 - 2004



1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 Data Source: U.S. Bureau of Economic Analysis, October 2005.

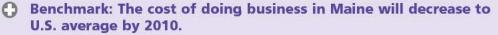
## Gap has Stabilized but Remains Wide Between Maine and U.S. Manufacturing Productivity

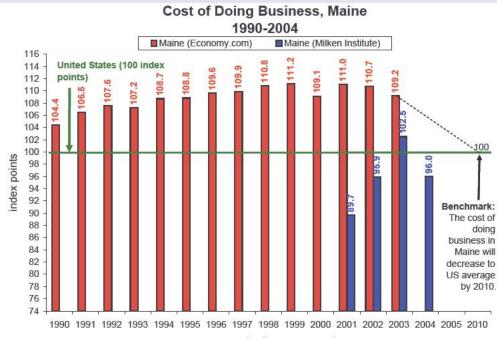
In 2004, each manufacturing sector worker in Maine produced an average of \$75,291 worth of product, an increase of 5 percent from 2003. During the same time period, U.S. manufacturing productivity increased by 5.5 percent to \$100,908 per worker.

While both Maine and the United States experienced an increase in worker productivity<sup>\*i</sup>, the gap in productivity between the United States and Maine remained constant at 25 percentage points from 2001 to 2004. This measure has not made progress towards the benchmark and is a source of concern.

Manufacturing productivity is an indicator of the level of output in an economy. It sheds insight into the quality of capital and labor factors of production. Progress in this measure primarily reflects capital investments and investments in worker training and education that increase the value of the product. Maine must accelerate investments in these areas if it is to close the gap with the U.S..

## 10. Cost of Doing Business





Data Sources: Economy.com, United States Business Cost Review, 2004; Milken Institute, October 2005.

#### Cost of Doing Business High in Maine Relative to U.S. but Falling

According to Economy.com (red bar on graph), Maine's cost of doing business in 2003 was 9.2 points higher than the national average cost of doing business. Though the cost of business in Maine as reported by Economy.com decreased in 2003, it remains one of the highest in the country. Maine ranked in the top ten for this measure each year between 1995 and 2003.

The California-based Milken Institute counters Economycom with a considerably different interpretation of Maine's cost of doing business (see blue bar on graph). The Milken Institute reports Maine's cost at only 2.5 points above the national average in 2003, and actually 4 points below it in 2004. Milken data dates to only 2001, however. The Growth Council chose to show the Milken index this year, but continues to use Economycom to benchmark the measure, as Economycom offers a more established and far less volatile index, as well as more historical data.

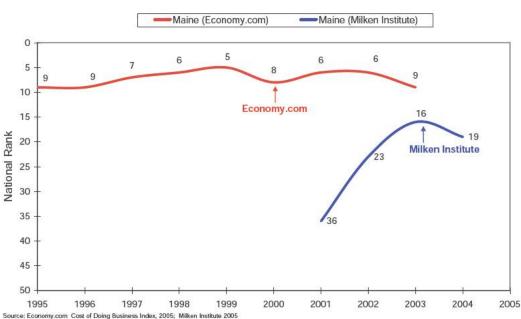
This performance measure is complex and can be viewed in different ways; hence the inclusion of two data sources this year. However it is interpreted, it is an important indicator of the costs of operating a business in Maine relative to other states, and is an important consideration for businesses looking to relocate to Maine, expand, or leave the state. A high cost of doing business rating for Maine represents a competitive disadvantage for Maine-based businesses.

For Economy.com, the cost of doing business is a composite of the cost of labor, energy costs, and tax burden in each state. Unit labor costs comprise 75 percent of the Economy.com index; energy costs comprise 15 percent; and the tax burden is 10 percent.<sup>11</sup> For the Milken Institute, the cost of doing business is a composite of wage costs, energy costs, and tax burden, as well as the cost of renting industrial (warehouse) and office space. Wage costs represent 50 percent of the Milken index; 20 percent is the tax burden; 15 percent is energy costs; 10 percent is the cost of renting warehouse space;

## 10. Cost of Doing Business (Continued)

and 5 percent is the cost of renting office space.<sup>##</sup> When commercial and industrial rental prices are factored into the cost of doing business calculations, Maine's overall costs appear more favorable.

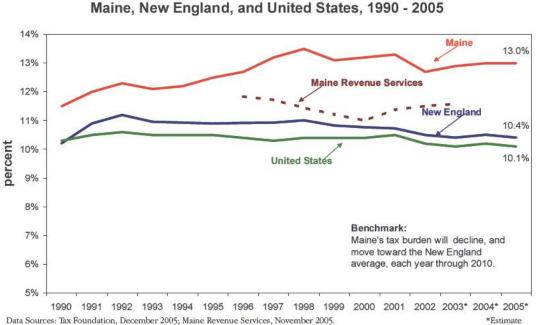
While difficult to accurately assess since electric utility deregulation in 2000, it appears that electricity rates for industrial customers in Maine are high relative to other states. The tax burden, as shown in another performance measure, is relatively high in Maine as well.



## Cost of Doing Business National Rankings 1995-2004

## 11. Local and State Tax Burden

## Benchmark: Maine's tax burden will decline, and move toward the New England average, each year through 2010.



## Tax Burden of State and Local Taxes as a Percent of Income Maine, New England, and United States, 1990 - 2005

#### Maine's Tax Burden High but Stable

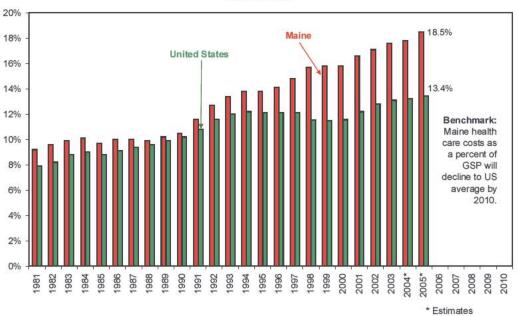
Over the last several years, Maine has ranked first in the nation for state and local tax burden. According to the Tax Foundation, 2005 was no exception. Maine's state and local taxes were an estimated 13 percent of income in 2005, exactly the same as the 2004 rate.<sup>ix</sup> By comparison, New England's tax burden was approximately 10 to 11 percent between 1990 and 2005. The U.S. tax burden typically hovers around 10 percent.

This measure has missed its benchmark for the third straight year, and the Growth Council has given it a Red Flag for 2006. Reducing Maine's tax burden is critically important to achieving sustainable economic growth. Maine competes with other New England states to attract people and businesses, and its tax burden hinders the state's competitiveness.

This year, the Growth Council chose to include tax burden estimates collected by Maine Revenue Services (represented by the dotted line in the graph), in addition to the estimates by the Tax Foundation. The chief difference between the two estimates is that Maine Revenue Services measures the tax burden of Maine state and local taxes on Maine residents only, whereas the Tax Foundation measures the burden of state and local taxes imposed by sub-national governments on Mainers in or outside of Maine (for example, the Tax Foundation captures the tax on a good bought by a Mainer in New York). Maine Revenue Services offers a more precise measurement of the Maine state and local tax burden, since it only factors taxes imposed by Maine state and local government. The graph shows that between 1996 and 2003, Maine Revenue Services gauged the tax burden between 10.5 and 11.5 percent, approximately. The Growth Council continues to use the Tax Foundation since it produces comparative tax burdens between Maine, New England and the U.S..

## 12. Cost of Health Care

Benchmark: Health care costs as a percent of GSP will decline to U.S. average by 2010.



Health Care Costs as a Percent of GSP, Maine and U.S. 1981-2005

Data Source: 1998-2005 numbers are from the Governor's Office of Health Policy and Finance, November 2005. 1981-1997 are from the Centers of Medicaid Services, Office of the Actuary, National Health Statistics Group.

#### Health Care Costs Continue to Rise

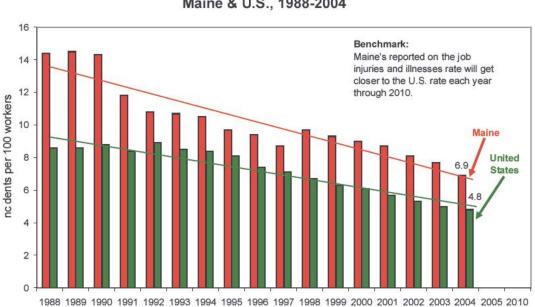
In 2005, personal health care costs for Maine's people and businesses amounted to an estimated 18.5 percent of Maine's Gross State Product, up from an estimated 17.8 percent in 2004. For the United States as a whole in 2005, health care costs were an estimated 13.4 percent of Gross Domestic Product, up slightly from an estimated 13.2 percent in 2004.

This measure has been given a Red Flag by the Growth Council. Maine's health care costs continue to rise each year, and are moving away from the benchmark. The cost of health care in Maine is an important consideration for businesses thinking of moving to or expanding in Maine. Rising costs represent increasing health insurance premiums for businesses, as well as larger deductibles and out-of-pocket expenses for employees.

The greatest opportunity for reducing the cost of health care lies in improving the lifestyle choices of Maine's population, such as tackling smoking and improving physical fitness. The private and public sectors have taken steps to achieve this end through wellness programs, among other initiatives.

## 13. On-the-Job Injuries and Illnesses (Reported)

Benchmark: Maine's reported on-the-job injury rate will move closer to the U. S. rate each year through 2010.



On-the-Job Injuries and Illnesses (Reported) Maine & U.S., 1988-2004

Data Source: U.S. Bureau of Labor Statistics, 2004 Occupational Injuries Report

## Maine Rate Improves, But Remains Above U.S.

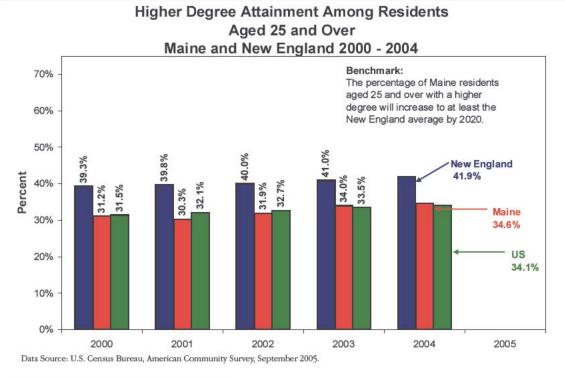
In 2004, there were 6.9 reported injuries and illnesses for every 100 full-time Maine industrial workers, a decrease of 10.4 percent from 2003. During that same time period, the number of incidents in the United States dropped by 4 percent to 4.8 injuries per 100 workers.

The vitality of the workplace and larger community is negatively affected by injuries and illnesses that occur on the job. Workplace safety is an important component of long-term economic growth, as injuries translate directly into increased health costs and decreased output.<sup>x</sup>

The Growth Council awards this measure with a Gold Star this year for the improvement Maine has made in on-the-job injuries. Safety training programs for workers have had a positive impact. In addition, progress in lowering worker injuries and illnesses is due in part to structural shifts in the economy. Employment in traditional manufacturing industries, which carry greater risks for injuries and illnesses than newer service industries, is in decline.

## 14. Higher Degree Attainment

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



#### More Maine People Have Higher Degrees

In 2004, 34.6 percent of people in Maine aged 25 and over had higher education degrees. Maine has demonstrated steady improvement in this area over recent years, with a 14 percent increase in degree holders since 2001. Maine closed the degree gap with New England from 9.5 percentage points in 2001 to 7.3 points in 2004. Maine also surpassed the U.S. in 2003 and maintained a slight edge over the rest of the country in 2004.

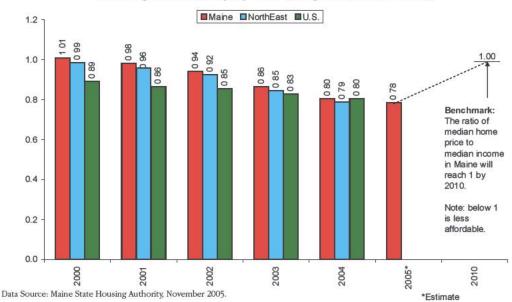
In 2004, 13.8 percent of New Englanders had graduate or professional degrees, while that percent in Maine was 8.2. New England's bachelor's degree rate was 20.4 percent last year, whereas Maine's was 17.9. Finally, in 2004, New England's proportion of associate's degree holders was 7.7 percent, compared to 8.5 percent in Maine.

Higher education has become an increasingly critical factor in Maine's economic development, given today's "knowledge economy." Each of Maine's degree attainment levels needs to grow in order for the state to attract business investment and create better jobs. A more educated workforce is central to Maine's competitiveness in an era of rapid knowledge advancement around the globe.

The benchmark for this measure is set to the goal of the Maine Compact for Higher Education, which is to increase degree holders in the state by 40,000 above current projections by the year 2020.

## **15. Affordable Housing**

## Benchmark: The ratio of median home price to median income in Maine will reach 1 by 2010.



#### Housing Affordability by Year (weighted owner/renter)

#### Home Prices in Maine Increasing Relative to Income

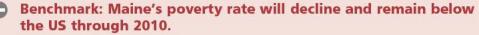
The Growth Council has adopted a new housing affordability measure this year. The new index is the weighted average of the Maine State Housing Authority's (MSHA) homeownership affordability index and rental affordability index, with the weighting based on the relative numbers of homeowner and rental households.<sup>31</sup>

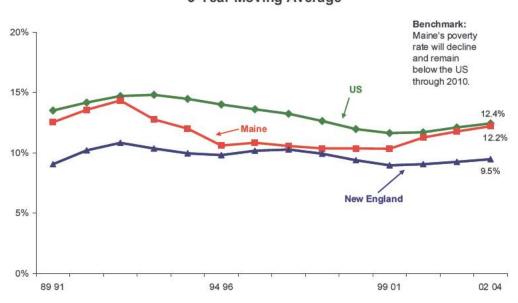
The Growth Council chose the new affordability index because it presents a number of advantages over the previous affordability measure in past *Measures of Growth* reports. First, it considers the affordability of homeownership and rentals, rather than homeownership alone. Second, the new index factors in important variables that affect housing affordability such as mortgage interest rates, property taxes and insurance costs. Third, it offers northeast regional and national benchmarks for comparison.

In the graph, the higher the index, the more affordable housing is; the lower the index, the less affordable. It can be seen that in Maine, as in the Northeast and U.S. as a whole, housing has become less affordable since 2000. MSHA estimates that housing in Maine was less affordable in 2005 than in 2004.

This measure receives a Red Flag this year. Low housing affordability creates a drag on the economy, and negatively impacts the community and the environment. It decreases consumer spending as people must pay more for their homes or apartments. Moreover, it hurts the ability of businesses to attract and retain workers, as unaffordable housing drives people out of local labor markets. In most of Maine's employment centers, high housing costs are forcing people to commute long distances because they cannot afford to live in the same communities in which they work. This in turn contributes to sprawl, including increased traffic problems, highway maintenance costs and dependence on fossil fuels. It also diminishes the social capital of communities, as fewer citizens live and work in the same place and have fewer opportunities to participate civically (see also 22. Population of Service Centers indicator).

## 16. Poverty





Annual Poverty Rates 3-Year Moving Average

Data Source: MECEP; U.S. Census Bureau, Current Population Survey, January 2006

#### Maine's Poverty Rate Rising

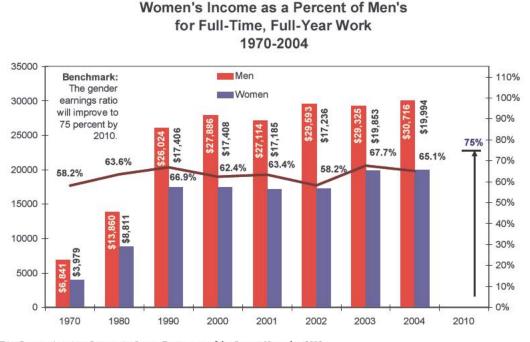
According to the Current Population Survey, Maine's poverty rate is rising and thus moving away from the benchmark. In fact, as the graph illustrates, poverty rates in Maine, New England and the U.S. have been gradually increasing over the past few years, with Maine's rate converging on the nation's.

The graph shows poverty rates based on three-year averages. The average rate of Maine people living in poverty from 1999 to 2001 was 10.3 percent. In the three-year period ending in 2004, the average rate increased to 12.2 percent. By comparison, the U.S. average rate of poverty moved from 11.6 percent to 12.4 percent over the same time frame, and the New England rate moved from 9 to 9.5 percent.

Poverty negatively impacts Maine on many levels. Children growing up in poverty are more likely to experience lags in physical and mental development, which diminishes their chances for educational success and future contributions to the workforce and community. Additional aspects of poverty can include substance abuse and antisocial behavior such as crime. These externalities create increased financial dependency on public resources to cover costs such as health care and criminal justice.

## 17. Gender Income Disparity

Benchmark: The median annual income of women working fulltime will improve to 75 percent of the median annual income of men working full-time by 2010.



#### Data Source: American Community Survey, Department of the Census, November 2005.

#### Women's Income Still Significantly Lower than Men's

In 2004, the median annual income of all women in Maine who worked full-time, full-year was \$19,994, compared to a median income of \$30,716 earned by men who worked full-time, full-year. This translates to an earnings ratio of 65.1 percent.

Maine has made little progress in equalizing the pay of men and women. In fact, the earnings ratio has stayed relatively constant or gotten worse over time. As the graph demonstrates, women made more money relative to men in 1990 than they did in 2004.

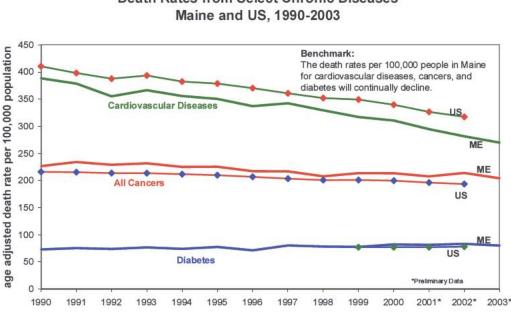
Disparities in the amount of money that women make compared to men provide disincentives for women to contribute to the labor force. They impair economic growth by not fully realizing the benefit of having productive, economic contributions from all people.

The prosperity of women affects Maine's communities broadly and there are significant economic costs associated with the wage disparity. Since many more women than men constitute single heads of households, increasing women's wages to a level more in line with male earnings can decrease poverty. In addition, higher earnings among younger women, who are saving for retirement and contributing to social security, can provide greater economic security for those women later in life and decrease the dependency of Maine's elderly population.

The Growth Council has established a new benchmark which calls for a 75 percent ratio by 2010. Given historic trends in Maine and in the U.S., the previous benchmark of 90 percent by 2010 was considered by the Council as unrealistic.

## 18. Chronic Disease

Benchmark: The death rates per 100,000 people in Maine 0 attributed to cardiovascular diseases, cancers, and diabetes will continually decline.



Death Rates from Select Chronic Diseases

Data Source: Maine Department of Health and Human Services, October 2005.

#### Death Rate for Cardiovascular Disease Continues to Fall

The term "chronic disease" refers to a wide variety of health conditions that are not contagious and that can rarely be cured completely. Death rates in Maine attributed to the three major chronic diseases - cardiovascular diseases, cancers, and diabetes - are impacted by lifestyle choices such as smoking, diet, and exercise.

In 2003, the estimated death rates of the chronic diseases tracked in the graph were all in decline, compared to 2002. From 1990 to 2003, the cancer death rate decreased by 9.9 percent, and the cardiovascular diseases rate decreased by 30.5 percent. The diabetes death rate increased by 9.7 percent.

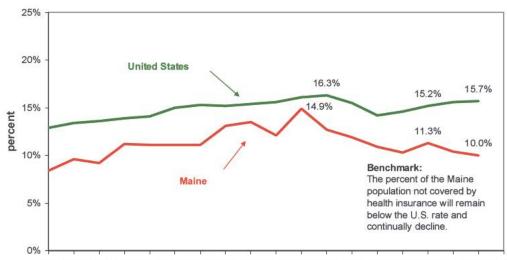
Chronic diseases negatively impact the quality of individual lives and the larger community. Costs associated with lost work time, hospitalization, and treatment of these often fatal diseases also affect our economy. Death rates serve as a proxy for the incidence of chronic disease in Maine, or the number of people living with these chronic diseases. Caring for people living with chronic diseases comprises a large part of Maine's health care costs.

Data for 2001, 2002 and 2003 are preliminary. Data on chronic diseases were age adjusted to the year 2000 standard population. Age-adjusted rates are useful for comparison purposes only, not to measure absolute magnitude. Age adjustment is a technique for removing the effects of age from crude rates, so as to allow for meaningful comparisons across populations with different underlying age structures.

## 19. Health Insurance Coverage

Benchmark: The percentage of Maine's population without health insurance coverage will continually decline and remain below the U.S. rate.

> Percent of Population without Health Insurance Coverage Maine and U.S., 1987-2004



1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005

Data Source: U.S. Census Bureau, November 2005.

#### Health Insurance Coverage in Maine Increasing

In 2004, 10 percent of people in Maine were not covered by health insurance, whereas 15.7 percent of the U.S. population did not have coverage. More Maine people had health insurance coverage in 2004 than in 2003. From 1997 to 2004, the uninsured rate in Maine declined by almost five percentage points. Conversely, the percentage of uncovered Americans has risen every year since 2001. The current U.S. trend threatens to eclipse the high point of 16.3 percent of Americans uninsured recorded in 1998.

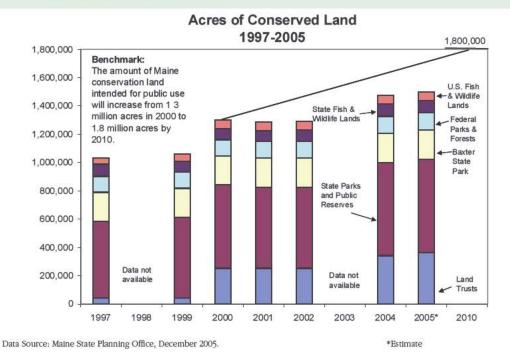
This measure has hit its benchmark for the third year in a row. Given the larger U.S. context, Maine is doing a very good job of ensuring coverage for its citizens, ranking near the top nationally. For these reasons, the Growth Council gives this indicator a Gold Star this year.

Health insurance coverage is imperative to helping people access appropriate health care services and staying healthy. Healthy people are more apt to be engaged in their communities and be productive in the workplace.

In line with the U.S., about 60 percent of non-elderly Maine citizens (ages 0-64) have at least some of their personal health expenditures covered under an employer-based health insurance program. However, the rate of employer-sponsored insurance (ESI) has declined both nationally and in Maine in recent years, as rising insurance costs have made it increasingly difficult for small and large employers to offer affordable health insurance benefits to employees. The decline in ESI is the cause of the increase of the uninsured nationally. Maine has used its Medicaid program (MaineCare) to avoid the increase in the uninsured rate that has accompanied the decline in ESI and to decrease Maine's overall rate of uninsured.

## 20. Conservation Lands

Benchmark: The amount of Maine conservation land intended for public use will increase from 1,300,710 acres in 2000 to 1,800,000 acres by 2010.



#### Land in Conservation Continues to Increase

Through 2005, Maine holds an estimated 1,507,851 acres of publicly accessible conservation land. This is an increase of over 115,000 acres since 2002. The significant rise in conserved land is due to an expansion in state reserves and land trusts in recent years. The figure does not include private lands under conservation easements.

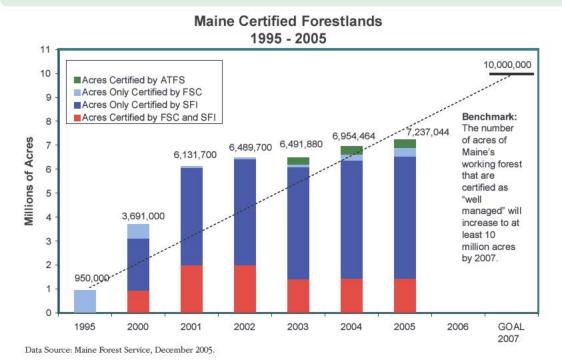
The upward trend in conservation lands is in part a response to increased sprawl along the coast and around major towns and cities. It also comes in response to significant turnover in forestland. Lastly, the 1999 \$50 million land bond package has stimulated increased conservation efforts over the last few years.

Access to public and private lands contributes to the high quality of life enjoyed by Maine people. Residents use these lands for all types of recreational activities, which provide jobs and draw tourists. In addition, conserved lands support diverse plant and wildlife species, and maintain the natural aesthetic quality of the landscape.

Despite the positive trend in land conservation, public and philanthropic investment may be beginning to level off. This presents a challenge to meeting the new benchmark created this year, which is 1.8 million total acres in conservation by 2010.

## 21. Sustainable Forest Lands

Benchmark: The number of acres of Maine's working forest that are certified as "well managed" will increase to at least 10 million acres by 2007.



#### Acreage of Forest Land Certified as "Well Managed" Increasing

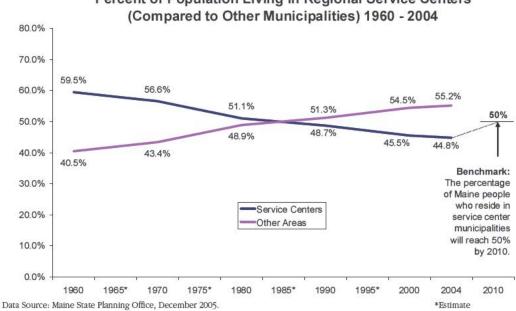
A total of 7,237,044 acres of Maine forest is certified as "well managed" as of 2005, an increase of 282,580 acres from 2004. Well managed forest land has grown consistently in Maine over the last three years. It will need to continue to grow at an even greater rate in order to reach the 2007 benchmark set by the Growth Council.

This measure represents certification by one or more of three primary certification programs operating in Maine.<sup>xii</sup> Certification demonstrates that forests are well managed—that they support healthy wildlife populations, offer recreational opportunities, and are able to supply raw materials to support Maine's economy now and in the future. A third party audit verifies conformance with nationally or internationally recognized standards of sustainable forestry.

Sustainable forest lands, along with conservation lands, are important indicators of the degree to which the state is combating sprawl. Proactive efforts to protect the natural environment help to manage suburban and rural development.

## 22. Population of Service Center Communities

Benchmark: The percentage of Maine people who reside in service center municipalities will reach 50 percent by 2010.



# Percent of Population Living in Regional Service Centers

#### **Residential Choices Reflect Increasing Sprawl**

In 2004, 44.8 percent of Maine people lived in regional service center communities, whereas in 1960, nearly 60 percent lived in these communities. The continuing trend of people moving out of urban centers into the more rural parts of the state-commonly referred to as "sprawl"-increases public costs and weakens Maine's central communities.

Spreading patterns of development take an economic, community and environmental toll. From an economic perspective, the increased development of Maine's suburban and rural areas forces the build-out of redundant infrastructure (roads, schools, waste systems, etc.). This is costing both state and local government millions of dollars annually, while service center communities struggle to pay for the upkeep of underutilized infrastructure. From a community perspective, people spend more of their time commuting to their place of work, straining the time and financial resources of families and eroding broad public participation in civic and community efforts. Finally, the accelerating consumption of Maine's land base has led to the increased environmental pressures of air emissions, non-point source pollution and disruption of animal habitats. Sprawl also has put enormous pressure on Maine's natural resource based industries (such as forestry and fishing), making access to sustainable forest lands and ocean water frontage more difficult and costly.

Within the boundaries of 63 specifically identified regional service center municipalities are almost three-quarters of all Maine jobs, services (hospitals, social services, educational institutions, cultural activities, and government services), and the state's consumer retail sales. For the most part, these are the places in which Maine people work, shop, and visit for a wide variety of services.

Economic growth is enhanced to the extent that people live close to or within these service centers. More people living in service centers means that services are delivered more efficiently and energy costs are reduced because people are not traveling as far to work and shop. Concentrated populations in urban areas also lessen environmental impacts such as fuel emissions and residential development in rural areas.

## Citing Information in This Report

Reproduction of the information contained in *Measures of Growth* is encouraged with proper citation. Wherever data or text is reproduced, please reference the source in the following manner: "Data source: Maine Economic Growth Council and Maine Development Foundation, *Measures of Growth 2006.*"

## About the Data and its Timeliness

The data in this report came from a wide variety of sources, primarily state and federal agencies. Some agencies are able to provide data that is immediately up-to-date, while others experience a lag that only allows them to provide data up to three years ago, for instance. Where possible, estimates were given by agencies in order to compensate for lags in confirmed data.

## **On The Web**

*Measures of Growth In Focus, 2006* is available at the website of the Maine Development Foundation in PDF for easy download and printing. Visit the Maine Economic Growth Council through the homepage of the Maine Development Foundation at www.mdf.org.

## Background and Acknowledgments

The Maine Economic Growth Council is cochaired by retired president and CEO of Madison Paper Industries, Roy Barry, and State Senator Lynn Bromley. The Growth Council was established in statute by the Governor and the Legislature in 1993 to develop a vision and goals for the state's long-term economic growth. It is comprised of 19 members, 14 representing the private, public, education, labor and non-profit sectors, 4 legislators, and the commissioner of the Department of Community and Economic Development. Membership to the Council requires a three-way appointment from the Governor, Senate President and Speaker of the House. Since its inception, the Council has published 11 well-received annual editions of *Measures of Growth*. Several state agencies have formally incorporated the report's goals and benchmarks into their own strategic plans. Nonprofit organizations have initiated programs aimed directly at accomplishing specific benchmarks. Government officials have used *Measures of Growth* to justify programs to achieve the goals. Teachers have incorporated the substance of the reports into their curricula. Policy development forums have used the benchmarks as springboards.

*Measures of Growth* has been constantly revised over the years in order to provide our readership with the most up-to-date overview of Maine's progress towards long-term, sustainable economic growth, and a high quality of life for all its citizens. For the past two years, the Council has opted to include what it deems are only the most critical factors that play into the vision of this report. The result is a leaner, more focused edition of *Measures of Growth*, compared to editions prior to the 2005 report.

The Council is administered by the Maine Development Foundation (MDF). MDF was created by the Legislature and Governor in 1978 as a private, nonprofit corporation with a broad mandate to promote Maine's economy. MDF stimulates new ideas, develops leaders, and provides common ground for solving problems and advancing issues. Today, the Foundation is financed primarily with private resources.

The Foundation's president, Laurie Lachance, oversaw the development of this report. Kevin Thurston, program director at MDF, researched and authored the report. MDF program assistant Lisa Merrill provided research, technical and administrative support. J.S. McCarthy Printers printed the report.

The work of the Growth Council is financed by a state appropriation through the Maine Department of Economic and Community Development, which is matched by private contributions from the membership of MDF.

The Maine Development Foundation and the Maine Economic Growth Council extend sincere appreciation to the organizations and people who generously provided data and guidance.

## Endnotes

According to the U.S. Department of Labor, Bureau of Labor Statistics, multiple job holders are employed persons who, during a specific week in which workers were surveyed, had either two or more jobs as a wage and salary job, or worked as an unpaid family worker and also had a wage and salary job. A person employed only in private households (cleaner, gardener, babysitter, etc.) who worked for two or more employers is not considered a multiple job holder. Also excluded are selfemployed persons with multiple businesses and persons with multiple jobs as unpaid family workers. The same methodology is applied in Maine as across the country.

<sup>"</sup>For ease of comparison, the graph shows Maine and United States data indexed to 1990; that is, 1990 values were set to 100.

"These data represent the value of products exported to other countries, but exclude services.

<sup>o</sup>The U.S. Small Business Administration (SBA), in its latest report on business starts by women, states that these starts grew by 26.8 percent from 2002 to 2003, and represented 39.7 percent of all starts in 2003.

For ease of comparison, the graph shows Maine and New England data indexed to 1990, whereby 1990 values were equalized to 100. The measure itself does not consider the number of business failures, acquisitions or mergers. It is the number of businesses each year that are "a new registration" with the state, or an applicant for a new account number with the state's Department of Employment Security. Also, the data presented here reflect only new businesses that have at least one employee other than the owner.

"Productivity is calculated here by dividing the total number of manufacturing employees into value added by the manufacturing sector in Maine. Value added is defined as the amount contributed by the sector to the state's Gross State Product. Employment figures do not reflect all manufacturing employees, as some types of manufacturing activities are increasingly outsourced to companies in the "service sector" such as employment contractors.

<sup>ww</sup>Economy.com defines unit labor costs as the average wages and salaries earned per dollar of output created. Its energy cost component of the index compares the average commercial and industrial electricity costs, in cents per kilowatt-hour, to the U.S. average. Economy.com's tax burden is the total tax burden as a percent of total personal income indexed to the national effective tax rate, which is calculated in the same manner.

<sup>viii</sup>Wage costs are defined by Milken as the average annual wage per employee in all industries. The Milken tax burden measures the annual state and local tax revenue as a share of personal income. Energy costs are defined as commercial and industrial electricity costs in cents per kilowatt-hour. Finally, the cost of renting both industrial and warehouse space is calculated on a square-foot basis by Milken. <sup>a</sup>Personal income is the income measure used for the Census Bureau's tax burden calculation. This measure does not factor in capital gains tax. The Tax Foundation instead uses Net National Product (NNP) to try and capture capital gains tax. NNP is an imperfect measurement and can overstate the tax burden during times when capital gains are increasing significantly, such as between 1995 and 2000. Maine Revenue Services uses a broad measure of income that includes capital gains income realized during the tax year in question.

<sup>5</sup>The data upon which this measure is based includes all types of work-related injuries and illnesses required to be recorded by the Occupational Safety and Health Administration (OSHA). OSHA defines an injury or an illness as an abnormal condition or disorder. Injuries include cases such as, but not limited to, a cut, fracture, sprain, or amputation. Illnesses include both acute and chronic illnesses, such as, but not limited to, a skin disease, respiratory disorder, or poisoning. Many workplace injuries and illnesses may go unreported.

<sup>a</sup>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 percent of monthly gross income is needed to cover payment on a 30-year mortgage with a 5 percent down payment (including taxes, homeowners insurance, and PMI).

<sup>xii</sup>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 percent 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 percent less than households overall.

"The three primary certification programs in Maine differ somewhat in their processes and goals. The Forest Stewardship Council's (FSC) goal is to provide market-based incentives for sustainable forestry, specifically the "green labeling" of forest products. FSC is an international, nonprofit organization, comprising a wide array of stakeholders, including environmental groups, timber trade, forestry professionals, forest certification organizations, and indigenous peoples. FSC emphasizes performance-based audits. The second program is the Sustainable Forestry Initiative (SFI). SFI's guidelines were developed by the American Forestry and Paper Association (AFPA) in 1994. The main goal of SFI is to promote continuous improvement of forest management and is more focused on the overall process of forest management than on a specific product. Thirdly, there is the American Tree Farm Standard (ATFS). This program uses the American Forest Foundation's Standards of Sustainability as the foundation for their certification process. These standards promote growing renewable resources, protecting the environment, and increasing public awareness of the benefits of managing forests for production.

## Maine Economic Growth Council, 2006

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